NHSO

Annual Report

Fiscal Year 2021

NHSO
National Health Security Office

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A message from the Chair of the National Health Security Board

Anuthin Charnvirakul
Minister of Public Health
Chair of National Health Security Board

Development of UHC aimig to provide health insurance for all Thai citizens to receive standard, continuous, equal and appropriate health and healthcare services ae per the motto: Strong Citizens, Strong Economy, Strong Thailand.

The implemented healthcare policies of Thailand aim to develop an efficient and a financially sustainable public health and a social security service systems providing healthcare access to all citizens of all groups. The enacted policies are in accordance with the goals of the National Strategy B.E 2661-2580 (A.D. 2018-2037) and with the Target 3.8 of the United Nation's Sustainable Development Goals (SDGs) to achieve universal healthcare. Hence, the mission of Ministry of Public Health is the provision of care to citizens of all age groups from their births to their deaths, to alleviate their pain, reduction of poverty, ensuring equal access to healthcare services. To attain such mission goals, the government promotes the development of 30 baht: Treats All and its services for citizens to have convenience in accessing public healthcare, advance primary care medicine, offer a holistic care for the elderly for a better quality of life including employing public health measures to drive and restore the country's economy to its normal prosperity.

The pandemic of Corona Virus 2019 (COVID-19) since 2019 is still posing as a challenge to various worldwide systems including Thailand's public healthcare and the national health insurance systems. The novel situation demanded rapid adaptation and rapid execution of sustainable policies, renew management systems, cooperation from all sectors such as the public, private, civil societies and various volunteers. The adaptations extended to designing financial and healthcare funds appropriate to the current condition but also evolutionary to the changes. These implementations were conducted with the goal of providing citizens with necessary public health services, protect citizens from the risks of contacting the infection and reduce financial complications during illnesses.

I would like to express my gratitude to the executives of the Ministry of Public Health and other relevant ministries, executives and officers of hospitals and healthcare units both from the public and private sectors, professional organizations, Local Administration Organizations, the civil society and all related organizations, including the executive and staffs of the National Health Security Office, for their support and development of UHC aiming to provide health insurance for all Thai citizens to receive standard, continuous, equal and appropriate health and healthcare services as per the motto: Strong Citizens, Strong Economy, Strong Thailand.

A message from the Chair of the Health Service Standard and Quality Control Board

Dr. Suphan Srithamma
Chair of the Health Services Standard
and Quality Control Board

We have driven to better the quality and standard of services of the National Health Security Offices (NHSO) to attain efficiency from the cooperation and integration

The support and involvement in driving of UHC for Thai citizens to have access and confidence in the standard and quality of services.

This is the second year of the 5th term Health Services Standard and Quality Control Board has performed its duties since the 5th May of 2019.

The past two years with the COVID-19 pandemic and its repercussions on the economy, society and environment has altered the daily lives of citizens including the healthcare management, which had to adapt to the COVID-19 protection measures and the New Normal lifestyle.

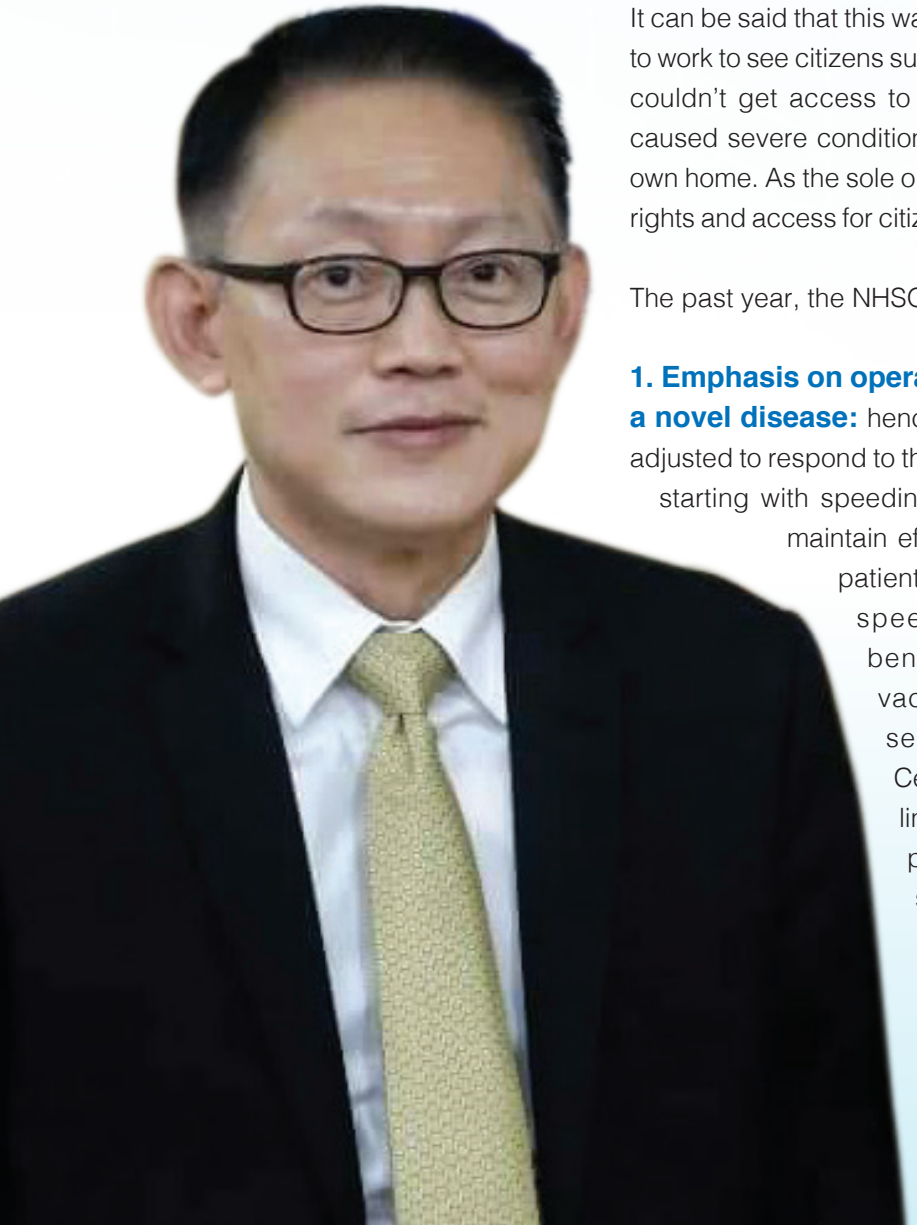
The Health Services Standard and Quality Control Board (HSQCB) recognizes the effects of COVID-19 pandemic on access to public health by recipients; therefore, the board has prioritized control, monitoring, and promotion of health services' standard and quality control through continuous practice of fair and quality services including protection of rights in accordance with the National Health Security Act B.E.2545(A.D. 2002). The key operating results of 2021 are as follows: an amendment proposal to the National Health Security committee on rules, procedures and conditions for preliminary financial assistance to beneficiaries suffering medical damages (No. 3) A.D. 2021 to extend time for filing a complaint according to Section 41, National Health Security Act B.E. 2545 (A.D. 2021), to 2 years from day of medical damage; initially, the period of complaint filing was to be completed within 1 year of medical damage. The HSQBC had also assembled another investigative committee form the original 2 committees to catalyze the investigative process bringing justice for the service providers and beneficiaries.

Throughout our active years, we have driven to better the quality and standard of services of the National Health Security Offices (NHSO) to attain efficiency from the cooperation and integration of HSQBC committee, NHSO committee, local and subcommittees of HSQBC, provincial subcommittee for diagnosing financial complaints, independent units receiving complaints from beneficiaries, public health service units, public health insurance coordination units including all subcommittees at the local levels and relevant health networks.

I would like to express my gratitude to the committees of HSQBC, NHSO, the subcommittees at the central and regional levels, health networks including the civil society and the citizen sector and finally, the National Health Security Office for their active involvement in driving the health services for Thai citizens to have access and confidence in the standard and quality of services.

A message from the Secretary-General of the National Health Security Office

Dr. Jadej Thammatacharee
Secretary-General,
National Health Security Office



The major challenge for the National Health Security Office in 2021 was still the COVID-19 pandemic causing an infected tally higher than that of the former year. The spread started since April 2021 to mid-year 2021 where the daily infected tally was higher than ten thousand per day before the numbers decreased during the end of 2021 fiscal year.

It can be said that this was the year where it was stressful coming to work to see citizens suffering from sickness while some citizens couldn't get access to care or some whose delayed access caused severe conditions and eventually, led to death at one's own home. As the sole organization responsible for public health rights and access for citizens, these conditions are unacceptable.

The past year, the NHSO has mainly taken 3 actions:

1. Emphasis on operation speed since COVID-19 is still a novel disease: hence, the entire operating processes were adjusted to respond to the pandemic situation in a timely manner starting with speeding up payment to healthcare center to maintain efficiency and not billing Green Channel patients to develop rights during COVID-19, speeding up preliminary payments to beneficiaries suffering from COVID-19 vaccination side effects. In regards to services, we increased 1330 Contact Center by ten-fold from 300 to 3000 phone lines to coordinate for beds or to rapidly partner a patient with a service center to sufficiently service a large number of populations.

2. Promotion of services consistent with patients' needs and behaviors: starting with home isolation or community isolation, follow-up calls and deliveries of medicines and food to COVID-19 patients, who were waiting to be partnered to a service unit for home isolation, including utilizing technology to provide access to information and services. New technologies were implemented for self-registration through NHSO's Line application, registration for Antigen Test Kit (ATK) through Paotung application, providing initial care and help to those suffering from COVID-19 vaccination's side effect.

3. Partnering with both the public and private networks to provide comprehensive care to the infected: we had partnered with the civil society and the temples to create Community Isolation and Temple Isolation centers in various communities in Bangkok including partnering with Praboromarajchanok Institute of Health Workforce Development to support professors and nursing students, who were calling to monitor patients, partnering to support foundations or volunteers assisting patients in communities, partnering with the Rural Doctor Society, Institute for Urban Disease Control and Prevention, Princess Mother National Institute on Drug Abuse Treatment, Maharat Nakhon Ratchasima Hospital, Faculty of Medical Technology of Mahidol University to aggressively screen for infected individuals followed by isolation to rapidly receive treatment including other partnerships.

These three actions were the main principles upon which we acted whilst the direction of work remained consistent with the policies of Centre for COVID-19 Situation Administration (CCSA) and the Ministry of Public Health (MoPH). These, consequently, determined the financial strategies for continuous services from the 2020 fiscal year to 2021 fiscal year such as preparing financial compensation criteria for medical services rendered because of COVID-19, financially strategizing to support Hospitel, Home Isolation/ Community Isolation including allocating funds for purchasing ATK distributed to citizens for self-screening.

As the work direction was consistent with the policies of the organizations, we provided quick responses to the needs and behaviors of citizens including joining forces with various networks to support citizens by implementing the financial strategies as arranged by the NHSO. These actions have allowed us to achieve quite a satisfactory 2021 fiscal year; nonetheless, we are still faced with diverse challenges and the NHSO must continuously develop for citizens to have access and promote comprehensive, convenient, fast and fair good health and healthcare.

Even though COVI-19 was the main agenda for 2021 fiscal year, other projects of NHSO did not lose its priority nor were they neglected as evidence by NHSO's increasing Automated Peritoneal Machine (APD) service, added rechargeable cochlear implants for children under the age of 5 undergoing cochlear implant surgery, added a fixed-dose combination of Sofosbuvir/ Velpatasvir for all strains of Hepatis C viral infection, added 3 other cancer dugs including many other additions.

In regards to prevention of diseases, the NHSO had included screening for Thalassemia and syphilis for pregnant females, at-home blood pressure monitoring and a hotline for quitting smoking. Simultaneously, the NHSO had developed the Universal Coverage Benefit Package (UCBP) for all stakeholder parties to provide suggestions categorically and for conveniently monitoring for updates.

These are minor reflections of the promise and mission of the NHSO to equitably, equally and fairly provide citizens with healthcare. As the secretary-general of the NHSO, I reaffirm my commitment here that the NHSO will do our best to attain such goals whether it is during normal times or during a crisis.

Acronym and Synonym

Adj. RW	Adjust Relative Weight
IVR	Interactive Voice Response
A.D.	Anno Domini
A-ABR	Auditory Brainstem Response
ACSC	Ambulatory Care Sensitivity Condition
ADL	Activities of Daily Living
APD	Automated Peritoneal Dialysis
ART	Antiretroviral Therapy
ARV	Antiretroviral Drugs
ASSA	ASEAN Social Security Association
ATK	Antigen Test Kit
Average LOA	Average Length of Stay
B.E.	Buddhist Era
CA Anywhere	Cancer Treatment Anywhere
CAPD	Continuous Ambulatory Peritoneal Dialysis
CCSA	Centre for COVID-19 Situation Administration
CD4	Cluster of Differentiation 4
CHF	Community Health Fund
CKD	Chronic Kidney Disease
CL	Compulsory Licensing
CMI	Case Mix Index
CMI-Adj.RW	Case Mix Index Adjusted Relative Weight
COPD	chronic obstructive pulmonary diseases
COVID-19	Corona Virus Disease -2019
CPI	Customer Price Index
CSMBS	Civil Servant Medical Benefit Scheme
CUP	Contracting Unit for Primary Care
C-XR	Chest X-Ray
DAA	Direct Action Antiviral
dB	Decibel
DIS	Disability person in Social Security Scheme
DM	Diabetes Mellitus
DNA	deoxyribonucleic acid
DSC	Disability Services Center
DTP-HB-Hib	Diphtheria, Tetanus, Pertussis, Hepatitis B and Haemophelus Influenza Type B
EBIT	Evidence Base Integrity & Transparency Assessment
ECMO	Extracorporeal Membrane Oxygenator
EIT	External Integrity and Transparency Assessment
ER	Emergency Room
FSW	Female Sex Worker
FY	Fiscal Year
GDP	Gross Domestic Product
GGE	General Government Expenditure
GGHE	General Government Health Expenditure
HA	Hospital Accreditation
HBPM	Home Blood Pressure Monitoring
HCA	Hepatitis C Acting Antiviral
HCA DAA	Hepatitis C Direct Acting Antiviral
HD	Heard Disease
HD	Hemodialysis
HHE	Household Health Expenditure
HI/CI	Home Isolation/Community Isolation
HIV/AIDS	Human immunodeficiency virus/ Acquired immunodeficiency syndrome
HL	Hodgkin lymphoma
HLA	Human Leukocyte Antigen
HOR	House of Representatives
HPO	High Performance Organization
HPV	Human Papilloma Virus Vaccine
HSCT	Hematopoietic Stem Cell Transplantation
HSQCB	The Health Service Standard and Quality Control Board
HT	Hypertension
ICD	International Classification of Diseases
ICD-TM	International Classification of Diseases Thai Modification

IHRI	Institute of HIV Research and Innovation
IIT	Internal Integrity and Transparency Assessment
IMC	Intermediate care
IP	In Patient
ITA	Integrity and transparency assessment
ITA	Integrity and Transparency Assessment
IVF	In Vitro Fertilization
IVR	Interactive Voice Response
KT	Kidney Transplantation
LAO	local administrative organization
LOS	Length of Stay
LTC	Long Term Care
MDGs	Millennium Development Goals
MIS	Minimal Invasive Surgery
MMT	Methadone Maintenance Therapy
MoPH	Ministry of Public Health
MSDH	Ministry of Social Development and Human Security
MSM	men sex men
MSW	Male Sex Worker
NAMc	National AIDS Management Centre
NAP	National AIDS Program
NBRC	National Beneficiary Registration Center
NCH	National Clearing House
NHSB	The National Health Security Board
NHSO	The National Health Security Office
NLEM	National List of Essential Drugs
NSCLC	non-small cell lung cancer
NSCLC	non-small cell lung cancer
OAE	Otoacoustic Emissions
ODS	One Day Surgery
OECD	Organization for Economic Co-operation and Development
ONAC	Office of the National Anti-Corruption Commission
ONACC	Office of the National Anti-Corruption Commission
OOP	Out of Pocket
OP	Out-Patient
OPDC	Office of the Public Sector Development Commission
OTO	Otoacuoustic emission
P&P	Prevention & Promotion
PAO	Provincial Administration Organization
PCC	Primary Care Cluster
PCI	Percutaneous Coronary Intervention
PDx	Principal Diagnosis
PET/CT	Positron emission tomography/ Computer Tomography
PHV	Public Health Volunteer
PLHIV	People living with HIV
PPA	Prevention & Promotion area-based
PPE	Personal Protective Equipment
PrEP	Pre-Exposure Prophylaxis
PrRP	Pre-Exposure Prophylaxis
PVT	Private School Teacher
PWID	People who inject drugs.
QOF	Quality and outcome framework
RDU	Rational Drug Use
RW	Relative weight
SDGs	Sustainable Development Goals
SEAR	Southeast Asia Region
SOS	Smart Office Service
SSS	Social Security Scheme
STEMI	ST-elevated Myocardial Infarction
STP	Stateless People
TB	Tuberculosis
TDRG	Thai Diagnosis Related Groups
TG	transgenders
THE	Total Health Expenditure
THP	Thai Health Promotion Foundation
TTRS	Thai Communication Relay Service
UCBP	the Universal Coverage Benefit Package
UCEP	Universal Coverage for Emergency Patient
UCS	Universal Coverage Scheme
UHC	Universal Health Coverage
VCT	Voluntary counseling and testing
VHV	Village Health Volunteer
VL Suppressed	Viral load suppressed
WDI	World Development Indicators
WHO	World Health Organization

Executive Summary

Universal Coverage Scheme 2021 Fiscal Year Report

The implementation of Universal Coverage Scheme for Thai citizens under the guidance of **National Health Security Office Action Plan 2018-2022** aims **to ensure that every Thai citizen in the Kingdom of Thailand is assured of access to quality care** as guided by 3 principles namely accessible services, financial sustainability and good governance. **The 2021 fiscal year** was allocated 194,508.79 million baht (of which 52,143.98 million baht was the compensation for healthcare providers) to 47.644 million citizens with beneficiary rights to the Universal Coverage Scheme (UCS). The entire allocated budget comprised of 5.89 percent of the total Governmental budget or rate of medical services per capita at 3,719.23 baht and 1,377.69 million baht (0.71 percent of the UCS budget) was allocated as the NHSO Administrative budget.

The 2021 Fiscal Year performances are summarized as follows:

1. Financial Management

A total disbursement including obligations at 144,252.95 million baht, or 101.33 percent of total 142,364.82-million-baht budget exclusive of healthcare providers' compensation; the NHSO was approved to utilize the funds from the net income account for commissioning healthcare services

2. Population Coverage

Of the 47.74 million Thai citizens eligible for UCS, 47.56 million citizens (99.61 percent) were registered at health units.

3. Health Units

14,549 healthcare units are registered with the UCS registry comprising of 11,830 primary care units, 1,215 main contractor units, 1081 referral units and 3,254 specialized-referral units (each healthcare unit can be registered for than one service type).

4. Performance According to Budget Allocated

Services in Benefit Package (unit)	The fiscal Year 2020 Outputs	The fiscal Year 2021		
		Targets according to the budget allocated	Outputs	Performance (% of targets)
1. Services under capitation				
1.1 Outpatient and Inpatient services				
- Outpatient services (million visits)	162.565	174.299	161.712	92.78
- Outpatient services rates (visits per person per year)	3.421	3.658	3.437	93.96
- Inpatient services (million visits)	5.853	6.645	5.755	86.61
- Inpatient service rates (visits per person per year)	0.123	0.139	0.122	87.77
1.2 Special services				
- Thrombolytic therapy for STEMI patients (persons)	4,193	4,954	3,644	73.56
- Thrombolytic therapy for Stroke patients (persons)	7,010	7,810	6,808	87.17
- Cataract lens replacement surgery (visits)	120,368	120,000	93,945	78.29
- Corneal Transplantation (eyes)	490	591	517	87.48
- Heart transplantation and immunosuppressive drug (persons)	317	358	354	98.88
- Liver transplantation and immunosuppressive drug (persons)	124	117	112	95.73
- Stem-cell transplantation (persons)	86	110	107	97.27
- Blood transfusion and iron-chelating therapy for Transfusion Dependent Thalassemia patients (persons)	13,424	12,734	12,014	94.35
- Tuberculosis drugs for TB patients (persons)	92,398	78,043	81,719	104.71
1.3 Health promotion and disease prevention				
- Influenza vaccinations for targeted populations (cases)	3,308,860	6,200,000	4,995,582	80.57
1.4 Disability service				
- Assisted Instrument for Disables (persons)	28,166	33,624	24,842	73.88
- Rehabilitation services (persons)	3,631,175	3,552,509	3,097,918	87.20
1.5 Thai traditional medicine				
- Traditional Thai herbal massage (visits)	4,356,592	8,635,553	3,911,754	45.30*
- Postpartum care (persons)	67,017	45,178	60,493	133.90
- Herbal medicines prescriptions (visits)	11,595,034	9,260,239	9,089,167	98.15
1.6 Medicine and medical supplies				
- Essential, high-cost medicines (persons)	45,656	49,586	52,065	105.00
- Orphan drugs/antidotes (persons)	7,131	7,426	6,276	84.51
2. Specialized Care				
2.1 Antiretroviral Therapy for HIV/AIDS patients (persons)	282,095	271,704	289,116	106.41
2.2 HIV/AIDS prevention for at-risk population (persons)	74,228	72,500	80,382	110.87
2.3 Renal Replacement Therapy: CAPD, HD, and KT (persons)	64,575	63,815	69,208	108.45
2.4 Secondary prevention for diabetic and hypertensive patients (million persons)	3.774	3.699	4.001	108.16
2.5 Community care for chronic psychiatric patients (persons)	10,232	12,000	10,341	86.18
2.6 Long-term care for dependent persons in all schemes (persons)	165,058	139,671	186,284	133.37
2.7 Outpatient services by Primary Care Cluster team (visits)	760,314	2,680,000	2,928,676	109.28
2.8 Compensation for remote and hardship areas and Southern border provinces (healthcare units)	202	207	207	100.00

Notes: *Outputs is less than targeted due to the government's announcements regarding Social Distancing measures as of COVID-19 epidemic*

5. Quality of Health Services

a. 86.23 percent of referral units are certified HA: Hospital Accreditation (933 units of the evaluated 1,082 units).
b. In 2021 fiscal year, the quality and outcome framework indicate that 56.23, 55.28 and 39.54 percentages of Thai citizens in the 35-74 age population group had received screening for DM, HT and cervical cancer, respectively, being a lower number than 2020 fiscal year; inpatient treatment for asthma, COPD, hypertension, DM and seizure was lower than the former year.
c. 97.07 percentage of consumers, 80.94 percent of providers and 92.27 percent of health networks were highly and extremely satisfied with UCS services.

6. Consumer Services and Rights Protection

a. A total of 2,585,915 dialogues were made by beneficiaries and providers as phone calls to the 1330 Contact Center, fax, electronic mails, or in-person; of the total, 642,700 were regarding COVID-19 (24.85 percent).
b. Of the 1,026 petitioners, 845 had received compensation totaling to 208.259 million baht while of the 760 petitions by providers, 677 were reimbursed totaling 9.873 million baht
c. To ensure due process as consumer protection in all 77 provinces, there are 885 UCS facilitation centers 224 UCS coordinating centers and 126 independent complaint units as stipulated in Section 50 (5) including over 300 citizens focusing on children and youth, females, the elderly, the disabled, congested communities.

7. Stakeholder Participation

There are a total of 7,741 Local Administrative Organizations (LAOs) (99.58 percent of 7,774 in Bangkok and Pattaya) that have administered local fund for public health activities for at-risk citizens, school children, working population, the elderly, the disabled and patients with chronic illness. The activities were conducted within a budget of 3,589 million baht derived from 2,311 million baht (64.39 percent) from UCS fund, 1,233 million baht (34.35 percent) and 45 million baht (1.25 percent) from communities and others.

8. Challenges

a. Efficient and faster disbursements of funds to reduce risk and financial complications for providers.
b. Strengthening the public health and health services to be prepared and adaptable to rapidly changing situations, technologies and innovations consistent with the New Normal lifestyle.
c. Development of information technology and Big Data including management of large-scale operating systems for validation at-point-of-service and real-time disbursements including monitoring and evaluation.
d. Strengthening health education to lead to changes in behaviors and attitudes in order for citizens to trust the public health system and have confidence in the UCS
e. Strengthen the primary health systems and community health centers to expedite adjustments to system with the end-goal of providing access to all citizens
f. Elevate Thailand's UCS in harmony with the national strategies and the public health reform plan to create a system that is fair with lowest inequality for citizens of all groups to enjoy an equitable and comprehensive healthcare coverage.

10 Highlight Activities in the Year 2021

The mission of the Universal Coverage Scheme is to ensure that citizens have access to comprehensive healthcare during both normal healthcare situations and critical healthcare situations. In the 2021 fiscal year, the COVID-19 pandemic, both of the world and Thailand, had led to high numbers of infected and patients and is considered a severe health crisis. Thailand's UCS as the national health security service had cared for the citizens to receive necessary without financial obligations or complications simultaneous with development of the UCS system.

The 2021 fiscal year is evident as to the progression of the UCS towards stability, confidence and sustainability as the health security for all Thai citizens as reflected through the 10 Highlight Activities of the 2021 Fiscal Year as follows:

1. Continuation of Funds for COVID-19 infected and patients

Even though COVID-19 had become an epidemic since 2020 but due to its novelty, there is no definite knowledge on its prevention and treatment; eventually, this led to another bout of cluster-spread in April, 2021, regarding which the NHSO had evaluated and prepared funds to care for COVID-19 infected and patients. The 2020 fiscal year had received 2,282 million baht and was approved of an additional net of 1,020 million baht from expenses and in the 2021 fiscal year, NHSO was allocated funds from the COVID Loans Act (Emergency Degree Authorizing the Ministry of Finance to Raise Loans to Solve Problems, to Remedy and Restore the Economy and Society as Affected by the Coronavirus Diseases Pandemic, B.E. 2563 (2020)). For the first round (the House of Representatives' (HOR) motion passed on 29th December, 2020) allocating 3 billion baht, second round (the HOR's

motion passed on 30th March, 2021) issuing 3.753 billion baht, the third round (the HOR's motion passed on 1st June, 2021) earmarking 10.570 billion baht and the finale fourth round (the HOR motion passed on 27th July, 2021) allotting an additional 13.026 billion baht as additional remuneration for healthcare units to provide services including system management for citizens to receive necessary care as fast as possible. However, with the rapid increase in COVID-19 infected and patients came a dramatic increase in demand for care rendering the funds prepared by the NHSO insufficient for payment to the healthcare units. Therefore, the NHSO had requested for the 5th round of COVID Loans Act amounting to 20.829 billion baht of which the proposition was approved by the HOR on November 16th, 2021 and have reimbursed the relevant healthcare units.

Performance from March 1st, 2020 till September 30th, 2021, during the COVID-19 crisis can be classified as follows:

- Screening fees for all at-risk groups amounting to 13.537 million times at a cost of 25,8766.68 million baht
- Treatment fees for Gold Card COVID-19 patients amounting 842,158 times at a cost of 26,756.49 million baht
- COVID-19 vaccination fees for all insurance groups at 42.489 million doses at a cost of 971.87 million baht
- Treatment for unvaccinated amounting 1,602 times at a cost of 6.98 million baht
- Influenza vaccines amounting 2.4 million doses at a cost of 262.27 million baht
- Preliminary payment for beneficiaries suffering damages from treatment amounting to 160 individuals at a cost of 2.93 million baht
- Preliminary payment for beneficiaries suffering damages from vaccines mounting 3,760 individuals at a cost of 236.51 million baht
- Per capita payment for those unemployed or dismissed amounting 137,000 individuals at a cost of 365.94 million baht

2. Support COVID-19 screening units and care system for COVID-19 patients at home and communities

Due to the rapid spread of COVID-19, citizens at risk of COVID-19 required screening for the infection in order to receive treatment leading to long queues. Consequently, the Ministry of Public Health had approved Antigen Test Kit (ATK) as an initial screening to shorten the queue and for citizens to have easier access to treatment. The NHSO had teamed up with the Faculty of Medical Technology, Mahidol University, and Dhanarak Asset Development Co., Ltd in organizing a CVOID-19 screening services with ATK at the Government Complex including collaborating with Institute for Urban Disease Control and Prevention, Department of Disease Control, to further increase screening points at the Royal Thai Air Force Stadium (Thupatemi Stadium) and Rajamangala National Stadium (Huamak); the NHSO additionally partnered with Princess Mother National Institute on Drug Abuse Treatment, Maharat Nakhon Ratchasima Hospital with the same purpose of providing COVID-19 screening points.

Since Thailand had a continuous increase in COVID-19 infected and patients, access to treatments at hospitals became difficult as there were overflowing patients but not enough beds, specifically in Bangkok and eventually, leading to severe conditions and deaths. Therefore, to alleviate such dire conditions, the NHSO and the Department of Medical Services, MoPH, initiated the Home Isolation and Community Isolation (HI/CI) system for the Green Zone patients with none or minor symptoms to receive care.

The NHSO had published additional guidelines on public healthcare reimbursements in the 2021 fiscal year for those receiving care whilst waiting in HI and field hospitals for the CI. Patients in HI were partnered with a healthcare unit for monitoring symptoms and received medications such as Andrographis paniculate (King of Bitters), Favipiravir, a thermometer, a pulse oximeter including 3 meals during the entire 14 days quarantine.

As for the management of COVID-19 infected in communities, or CI, the NHSO had liaised with both the public and private sectors including the National Health Security Local Funds in various areas, Institute of HIV Research and Innovation (IHRI) and private hospitals to create a system for Bangkok for patients having no access to home treatment. The system extended to those patients in the Yellow Group waiting to receive treatment in hospitals. This execution did not only allow patients to receive treatments but helped decreased the waiting queue for beds and allowed patients with severe conditions to be treated in hospitals.

3. Preliminary assistance to citizens suffering from side effects of COVID-19 vaccination

The COVID-19 vaccination is an important measure to alleviate the COVID-19 pandemic since apart from preventing severe illnesses, decreasing chances of sickness and preventing death, the vaccinations will also build herd immunity for the kingdom; hence, the government had implemented a policy to vaccinate the citizens. However, due to the unforeseen effects of the vaccination, even with a low number of reports, the citizens' trust and confidence were diminished. The NHSO had initiated a system where citizens suffering from unforeseen effects of vaccinations will receive preliminary financial assistance and had publicly declared the initiative on May 16th , 2021.

The disbursement of the preliminary financial help was conducted under the National Health Security Act B.E. 2545 (A.D. 2002) where a citizen will not be proven as right or wrong. A subcommittee had assessed petitions filed by vaccinated citizens, who were suffering from the unforeseen effects of the COVID-19 vaccination; each area would rapidly assess the petition and payment would be made 5 days after submission of petition. The assistance was divided into 3 levels:

Level 1: Citizens with continuous illness paid no more than 100,000 baht

Level 2: Citizens suffering from organ failure, or disabled, paid no more than 240,000 baht

Level 3: Death, or decrepit, paid no more than 400,000 baht

4. NHSO distributed ATK tests to citizens for self-test

Due to the pandemic of COVID-19 and for high risk citizens to self-test for the infection for speedy treatment, the NHSO board had attended an urgent meeting where 8.5 million ATK tests amounting to 1,014 million baht were procured for service units to distribute to citizens for self-test. The distribution was accomplished through Rajavithi Hospital's network while the procurement was through the Government Pharmaceutical Organization.

To ensure that the ATK tests would reach to all risk groups citizens, the NHSO collaborated with Krungthai Bank with the end goal of having citizens register for the ATK tests through "Paotung" application followed by citizens picking up the tests at a service unit near home. The collaboration extended to registered primary care clusters and pharmacies including teaming up with Ob-un Clinics, Bangkok public healthcare centers, Public Health volunteers (PHV), provincial public health office, and village health volunteers (VHV) to distribute the tests to high risk citizens in communities.

In addition, there was a continuous care system where citizens, after having completed the ATK test, had to enter their result in the Paotung application. Citizens testing positive but with minimal symptoms could register for Home Isolation or Community Isolation while the NHSO had liaised with service units to provide further care.

5. Increase NHSO 1330 Contact Center including an online system

By the end of July 2021, there were 20,000 calls made to the NHSO 1330 Contact Center due to the COVID-19 crisis causing a long waiting line, thereby leading to inaccessibility. The the NHSO 1330 Contact Center is the main channel through which citizens can access COVID-19 services such as search for hospital beds, registering patients for HI/CI and coordination for infected individuals to receive treatment in their hometowns. The NHSO had increased telephone lines to 600 initially followed by increasing to 3000 staffing with NHSO officers from the central and district regions including volunteers from the private sector and the public. The NHSO also added a call-back service, where the officers would call a caller back if the individual's call was not answered. In regards to an infected individual requiring HI/CI, the individual would call 1330 Contact Center extension 14 while officers would monitor the individual daily through telephone calls increasing trust in the HI/CI system for citizens.

The NHSO had also added an online channel where volunteers would answer questions posed on various

channels such as the official website of the NHSO, www.nhso.go.tj, Line OA: @nhso, and Facebook: สำนักงานหลักประกันสุขภาพแห่งชาติ (National Health Security Office). For citizens requiring HI care, citizens could register through the website: https://crmsup.nhso.go.th/ and for returning to domicile for treatment, citizens could request through the website: https://crmdci.nhso.go.th/.

6. Gold Card beneficiaries enjoy additional treatment and medication benefits

The year 2021 amidst the COVID-19 crisis, the NHSO had added continuously added these benefits for citizens:

Automated Peritoneal Dialysis (APD) for beneficiaries with complications in peritoneal dialysis can switch to hemodialysis since for many patients have illness, financial issues, the economic crisis including patients who have to attend school or employment, the peritoneal dialysis is an obstacle to their lifestyles. The NHSO had set a target of servicing 100 patients in 2021 and 500 in 2022 as this will allow patients to undergo dialysis whilst sleeping and

decrease the responsibilities for patients' guardians, thus, increasing their quality of life.

Rechargeable Cochlear Implants for cochlear implant surgeries conducted on children under 5 years old whose hearing range is above 90 dB and have not undergone sign language training. This includes screening for hearing impairment in high-risk newborns under two test conditions: Otoacoustic Emissions (OAE) test, which test a newborn's inner ear's ability to respond to sounds to inspect functionality of the auditory nerve while the second test, the Auditory Brainstem Response (A-ABR) where brain waves formed cause of stimuli are recorded; these two tests have been implemented for normal newborn development.

Fixed-dose combination of Sofosbuvir/Velpatasvir are drugs with a Hepatitis C Direct Acting Antiviral effect for all strains of Hepatitis C with therapeutic effectiveness and have saved budgets compared to conventional treatments; hence, **the National Drug Information committee had approved to install the combined drug into the National List of Essential Medicines (NLEM) for all Hepatitis C patients within treatment criteria to receive the benefits.**

Three Anti-cancer medications consisting of **Capecitabine tablets** for oral treatment of intestinal cancer, stomach cancer and breast cancer patients to be able to receive care at home rather than travel to the hospital for chemotherapy; **Oxaliplatin injection** and Irinotecan HCl injection administered

together to treat cancer of the large intestines, where formerly, patients would have to stay at the hospital for a day but with these two medications, the timing has been reduced to two hours and have decreased treatment cost from 210,000 baht per course to 120,000 baht per course.

Finally, liver transplants for compensated and decompensated cirrhotic patients, screening for HLA-b* 5801 gene before administering Allopurinol to new gout patients, Extracorporeal Membrane Oxygenator (ECMO) for cardiac distresses and/or acute respiratory failures, screening and diagnosing Tuberculosis by conducting lungs x-rays for all at-risk groups, molecular assay in laboratories including utilizing cannabis oil for treatments of cancer, Parkinson's and migraines plus cannabis extracts for epileptic and end-stage cancer patients have been added.

7. Four services added to promote good health and prevent diseases

The National Health Security Office has always prioritized the promotion of good health and prevention of diseases and in the 2021 fiscal year, the office had added 4 services to attain such goal as follows:

1. Screening for Thalassemia and 2. Screening for syphilis in a pregnant women's partners of which both the programs' cost is lower than treatment and monitoring. The screening cost for Thalassemia in a pregnant woman's partner is 794 per couple while the cost of treatment for patients with severe thalassemia is 30,000 per person per year. As for screening and treatment of syphilis pre-pregnancy ensues a lower cost that during pregnancy where the former's cost is 130-400 baht per household and treatment at 1,500 baht while in-patient and out-patient treatment of syphilis from birth per person reaches a cost of 70,667 baht per household. **3. Home Blood Pressure Monitoring (HBPM)** is an item that does not have a budget since patients may get excited when getting their blood pressure checked, or otherwise known as White Coat Hypertension; hence, these patients are given an HBPM device for self-monitoring for a week to attain the real blood pressure. This allows patients to not be administering extra medication and saving medication costs. Finally, **4. Thailand Quitline for smoking** has saved 525-10,333 baht per smoker of social costs and have added healthy years to a smoker's life. Smoking is the number one risk factors for premature death and the cost of illnesses and premature deaths for new smokers is up to 85,000-150,000 baht per person.

8. Definitive criteria adjustments and scope of services of Gold Card

The NHSO had revised the MoPH's UCS 2004 and collated committee's announcements since 2006 totaling to over 31 sets before issuing a Universal

Coverage Scheme's committees' announcement regarding criteria and scope of services 2021 for clarity as to the rights to receive public health care as law of universal health coverage and services not covered by the scheme including prevention of extra billing. An added statement, "A beneficiary entitled to receive services by types and within the scopes of public healthcare as specified within this announcement will receive coverage with no financial obligation with the exception of cases where 1. Joint payments must be made according to the co-payment scheme, 2. It is a service that is excluded from the scheme, 3. Receiving services from health centers other than the registered centers or at a primary care unit with the network but without a referral or a non-justifiable case such as accidents, emergency illnesses".

As for services that were added in this publication but were formerly exempted consists of rehabilitation and treatment of drug and substance addiction to drugs and substances that were not covered under the Narcotic Addict Rehabilitation Act, public healthcare services for car accidents that weren't initially covered by the Road Accident Victims Protection Act, infertility treatment and In Vitro Fertilization (IVF) with the exception of surrogacy and treatment of illnesses that require an in-patient stay of over 180 days; these incorporations will increase public healthcare access to citizens.

9. UCS public hearings held during COVID-19 crisis

The National Health Security Office proceeded with holding a public hearing to engage all stakeholders as per the Article 18 of the National Health Security Act B.E. 2545 (A.D. 2002) since this is the heart of UCS's development amidst the COVID-19 crisis. The NHSO held simultaneous LIVE sessions through Facebook Live, Zoom meeting and a Google Form

complying with the social distancing policies. the seminar held in 2021 was the second year of the public hearing that had included focus groups such as the disabled, patients, the elderly, monks, conscripts and ethnic groups.

In 2021, there were 6,113 participants over 2,344 suggestions after having collated, eliminated repeated messages and separated irrelevant topics leading to a cumulative of **58 suggestions** covering 8 aspects namely, 1. Criteria and scope of public healthcare services, 2. Public healthcare standards, 3. Management of the National Health Security Office (NHSO), 4. Guidelines and management of the National Health Security Fund, 5. Management of the local National Health Security Fund and LTC expenditures, 6. Participation, 7. Awareness and rights protection and 8. Others.

As for the new suggestions such as allocation of budget to support caregivers or budget allocation for primary care units to visit patients, increase funds for waste treatment in dialysis centers, develop primary healthcare for citizens to prioritize disease prevention, promote health education, healthcare to prevent chronic illnesses and awards or compensation to boost morale, the NHSO's subcommittee will take into further consideration.

10. Drive Gold Card upgrading policy of expanding services in 2022 covering the entire nation allowing beneficiaries to receive care at any primary care unit without having to present the referral form

As the approval of the NHSO board to "Upgrade the Universal Coverage Scheme" on October 5th , 2020, it has been found that the difficulty of accessing healthcare has been greatly reduced for the beneficiaries.

1. Sick citizens can be treated at any primary care unit's family doctor as per the "30 baht treats all diseases" was applied firstly at NHSO Health Region

13 Bangkok and NHSO Health Regions 7-10 Northeast region where citizens can check their status through an application while the confirmations are done through the Smart Card in identification cards for citizens to receive health services at any network primary care unit within the same Health Region; there were 950,176 visits from 1st January – 30th September, 2021 to 436 units (907,273 visits were made to new 250 primary care units in Bangkok and 42,903 visits to 186 units in NHSO Health Regions 7-10)

2. In-patients do not need a referral form when initially, every in-patient must have a referral form in order to be continuously treated at a tertiary hospital and must be renewed every 3 months until the end of treatment. This proved to be an inconvenience to return to their domicile for a renewal of referral form including incurring travelling costs. To offer convenience, the NHSO had adjusted its inpatients' system to be treated immediately following a physician's diagnosis without requiring a referral form from their contracted unit but would require only their identification card for identity verification. The hospital will be responsible for the servicing, referral, history-taking of patients and the system had first been implemented in Health Region 9 Nakhorn Ratchasima from November 1st , 2020, and Health Region 13 Bangkok, from 1January 1st , 2021, where 400,451 visits, or 59.63 percent, of cross-unit inpatient stays have been utilized (191,342 cross-unit but same state in-patient stays, 7,507 cross-state in-patient stays, and 201,602 cross-Health Region in-patient stays).

3.Cancer Treatment Anywhere (CA Anywhere) where former, Gold Card's cancer patients would have to undergo bureaucratic processes thereby slowing down treatment; hence, the NHSO had adapted its cancer treatment program for those that have been diagnosed to present their certification and history, or Code, in order to receive treatment through three channels namely, 1. the NHSO 1330 Contact Center, 2. NHSO Application and 3. Directly contact the specialized unit in cancer-treating hospitals. Each patient will be treated according to the cancer treatment protocol through Telehealth or Telemedicine and receive home chemotherapy. Such policy was executed from January 1st , 2021, onwards and since a total of 1,270,651 patients have received treatment of whom 846,072 receive outpatient care (of this,16.52 percent was cross Health Region visits) and 424,579 received inpatient care (of this, 6.15 percent was cross Health Region visits).

4.Immediate transfer of treatment unit without have to wait 15 days, which was the former practice where patients would have to wait approximately 2 weeks, or on the 28th of the month, before transfer was possible preventing the patient from receiving treatment in their current domicile area. The NHSO had developed a registration system on NHSO's mobile and desktop application allowing beneficiaries to apply for a transfer and receive that right within a day (a beneficiary can apply for no more than 4 transfer per year) from 1st January, 2021 onwards. A total of 1,291,073 transfer have been made (of which 86.48 percent transfers were made through units and 13.52 percent through mobile application and LINE application) and 264,636 transfers were made on the day after requests were made (20.50 percent) of which 13.63 percent transfers had utilized services of the new transferred unit and 6.87 percent did not utilized services of the newly transferred unit.

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SECTION

1

Universal Health Coverage System

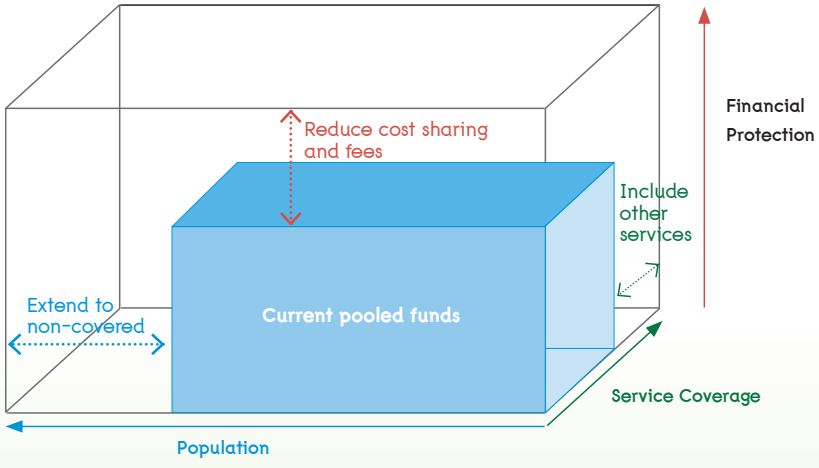
1 Concept of Universal Health Coverage

The UHC was founded based upon the principles of providing citizens with access to healthcare services without any undue financial hardships. Therefore, to accomplish this feat, the government must have in-place financial strategies to protect families' financial obligations and to bring fairness, especially to the population living at and below the poverty line including those who cannot afford expensive healthcare services.

The World Health Organization's annual report on the Path to Universal Coverage compared the UHC system to a UHC Cube's three dimensions of healthcare security:

1. Expanding UHC for Population Coverage by increasing coverage for citizens, who are eligible for public health insurance system
2. Expanding UHC Services Coverage by increasing the frameworks and diversity of health services to fulfill the healthcare demands for the citizens
3. Expanding UHC for Financial Coverage where there will be a decrease in financial obligations for citizens for healthcare services to be coherent with the main purpose of building a healthcare system that frees citizens from financial catastrophes, one of the core grounds deterring the population from eliciting healthcare services (Figure 1-1).

Figure 1-1 Three dimensions to consider when moving towards universal coverage



Three dimensions to consider when moving towards universal coverage

Source: WHO. Universal coverage - three dimensions [online]. [cited 2019 Feb 7; Available from:URL:]

2

Sustainable Development Goals: SDG

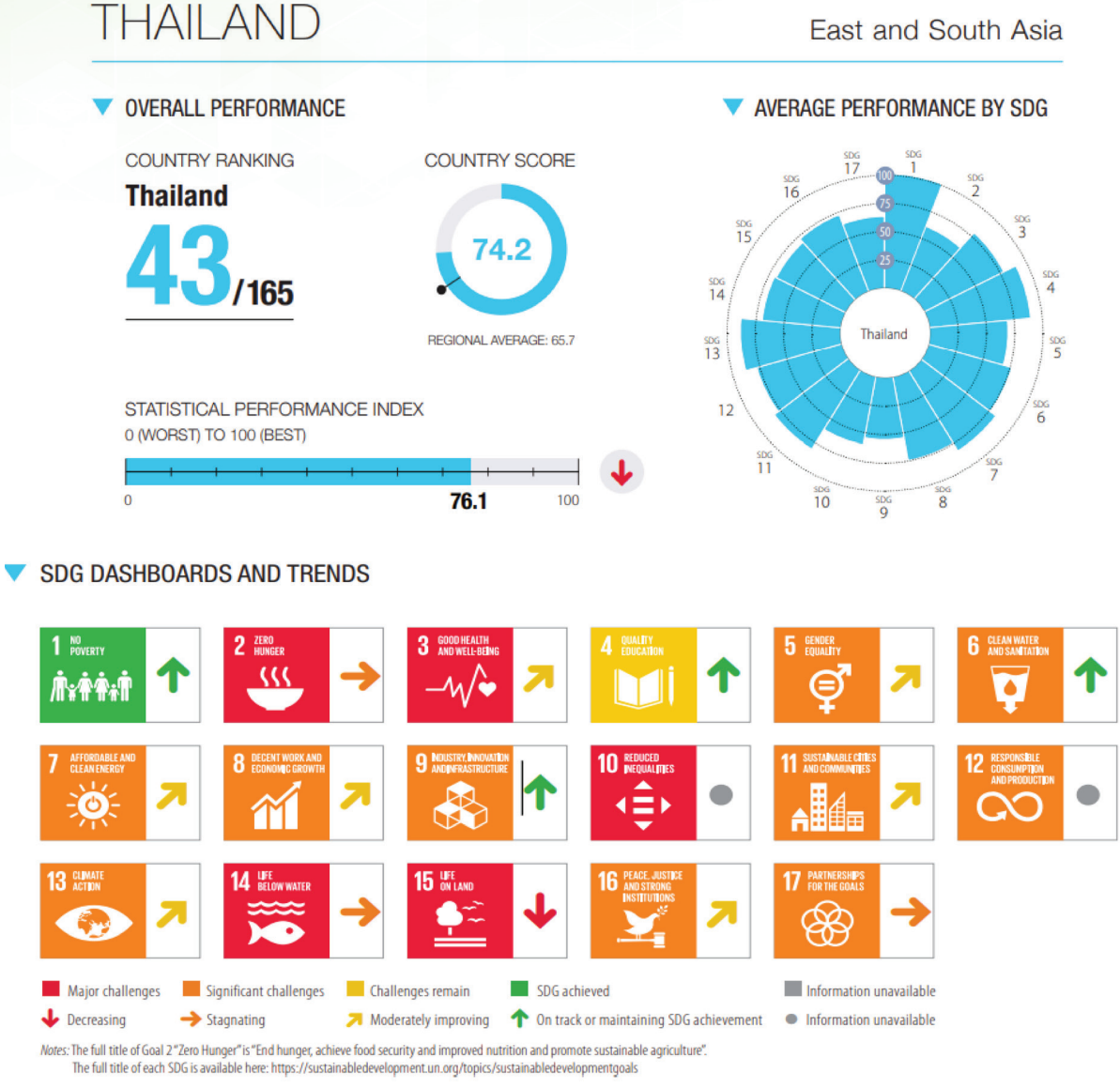
United Nations: As a consequence of the Millennium Development Goals' (MDGs) accomplishment in 2015, the United Nations had set the Sustainable Development Goals (SDGs) to be attained within 2030. The developmental goals composed of developmental guidelines on economics, society, health, education, and environment consist of 17 goals, 169 objectives, and 244 indicators for Un members to implement for their own nation's progress. Thailand, as a member, and through Gen. Prayuth Chan-o-cha, on 25th September 2015, has endorsed the SDGs.

The National Health Security Office, the entity responsible for driving the 3rd goal, promises to establish healthcare security and the well-being for all ages as specified in the Target 3.8: to achieve UHC including financial risk protection, access to standard healthcare services and access to safe, effective, quality, and affordable essential medicines and vaccinations.

This is the first since the endorsement of the Sustainable Development Goals (SDGs) in 2015 where the world had regressed in its drive for the SDGs due to the COVID-19 pandemic, which had not only created a goal health emergency but the current crisis is also threatening the sustainable development as paraphrased from the SDGs report 2021 which includes SGD Index and Dashboard to monitor progress of the Global Goals 2030.

Thailand's SDG 2021 index score rank was 43 of the total 165 countries scoring 74.2, which was above South-East Asia's score of 65.7. However, Thailand's rank and score had dropped from 2020 at 41st rank and total of 74.5 score but still ranking first in the South -East Asia region with Vietnam second (rank 52), Malaysia third (rank 65) followed by Singapore fourth (rank 76) as per the Figure 1-2

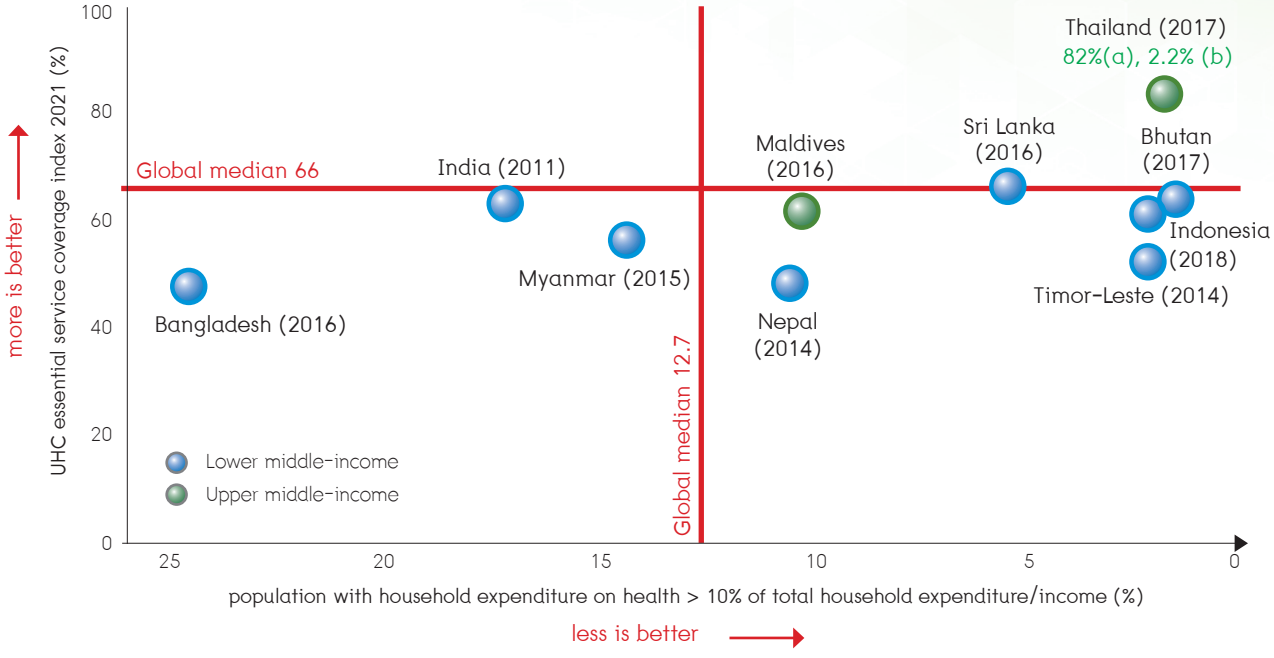
Figure 1-2 Thailand Performance of Sustainable Development Goals in the Year 2021



Source: Sustainable Development Report 2021, page 438-439; https://sdgindex.org/

The target goals of SDG 3.8 to achieve universal health coverage, including financial risk protection comprise of 2 indicators: Indicator 3.8.1: Coverage of essential health services and Indicator 3.8.2: Proportion of population with large household expenditures on health as a share of total household expenditure or income. The monitoring progress on UHC and the health – related SDG in the SEAR 2020 update revealed that Thailand had achieved SDG-3.8.1(a), 3.8.2(b) at 82% and 2.2 %, respectively (Global medial indicators are 66% and 12.7 respectively) (Figure 1-3). The SDG 3.8.1 indicator ranks Thailand first from member states in South East Asia (Figure 1-4).

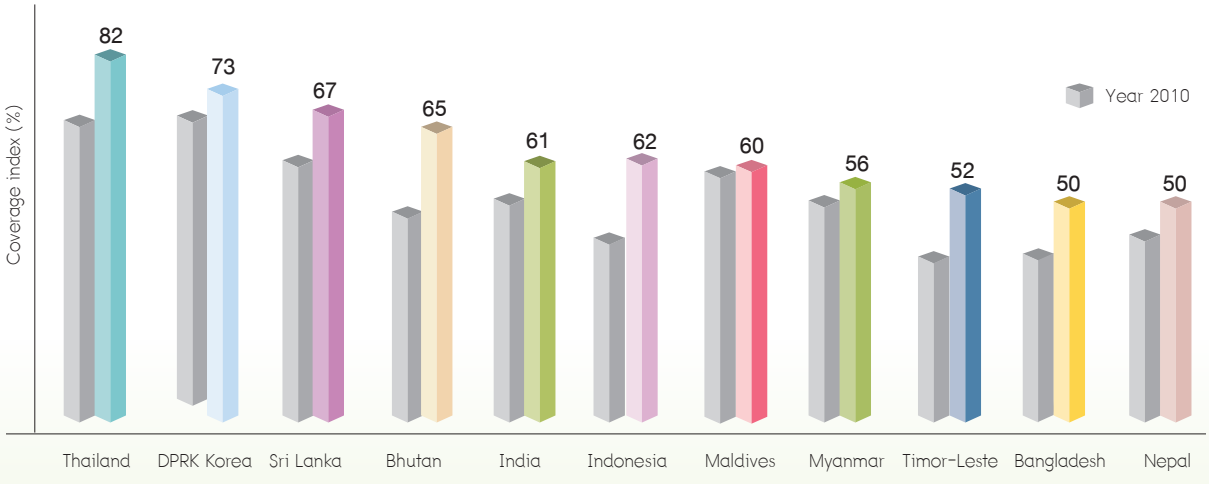
Figure 1-3 Comparison of health services coverage, SDG-3.8.1(a) and financial health protection, SDG-3.8.2(b) in the Member States of the WHO South-East Asia Region by income level, 2021)



Source: Monitoring progress on universal health coverage and the health-related Sustainable Development Goals in the South-East Asia Region, 2021 update, page 15.

Note: Tracking universal health coverage 2021 Global Monitoring Report, Conference edition, page 94, reported SDG-UHC indicator 3.8.1 (a) UHC Service Coverage Index, 2019 is >= 80% and SDG-UHC indicator 3.8.2 (b) Incidence of catastrophic health spending (%), 2019 is 1.9%, respectively.

Figure 1-4 Changes in coverage of essential health services in Member States of the WHO South-East Asia Region, 2010 and 2020



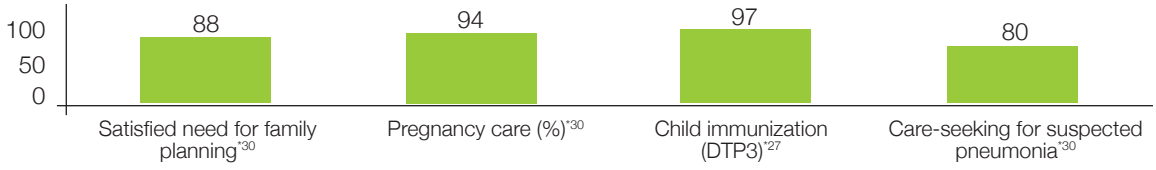
Source: Monitoring progress on universal health coverage and the health-related Sustainable Development Goals in the South-East Asia Region, 2021 update, page 13.

However, the SDG-3 Good Health and Well-Being indicates that Thailand must improve certain indexes such as the Incidence of Tuberculosis, traffic death, Adolescent fertility rate (15-49 years) and Life expectancy at birth (Figure 1-5).

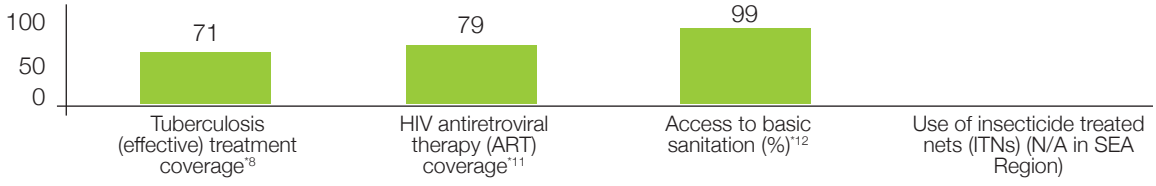
Figure 1-5 Details of Thailand Performance of SDG 3: Good health and well-being in the Year 2021

SDG3- Good Health and Well-Being	Value	Year	Rating	Trend
Maternal mortality rate (per 100,000 live births)	142	2017	●	↑
Neonatal mortality rate (per 1,000 live births)	19.6	2019	●	↗
Mortality rate, under-5 (per 1,000 live births)	44.2	2019	●	↗
Incidence of tuberculosis (per 100,000 population)	498.0	2019	●	→
New HIV infections (per 1,000 uninfected population)	0.2	2019	●	↑
Age-standardized death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30-70 years (%)	19.9	2016	●	↑
Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	140	2016	●	●
Traffic deaths (per 100,000 population)	11.9	2019	●	↗
Life expectancy at birth (years)	69.6	2019	●	→
Adolescent fertility rate (births per 1,000 females aged 15 to 19)	32.4	2018	●	↑
Births attended by skilled health personnel (%)	56.7	2016	●	●
Surviving infants who received 2 WHO-recommended vaccines (%)	83	2019	●	↑
Universal health coverage (UHC) index of service coverage (worst 0-100 best)	52	2017	●	↗
Subjective well-being (average ladder score, worst 0-10 best)	NA	NA	●	●

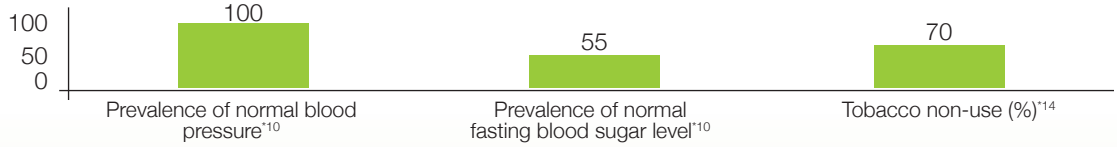
Reproductive, maternal, newborn and child health



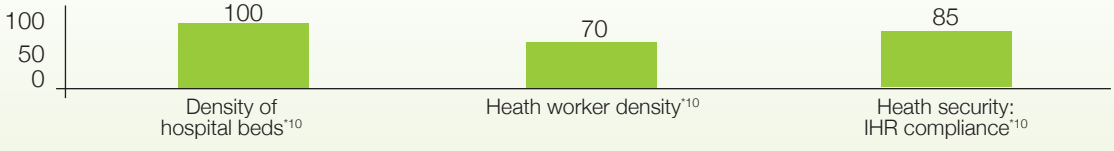
Infectious diseases



Noncommunicable diseases



Service capacity, access and health security



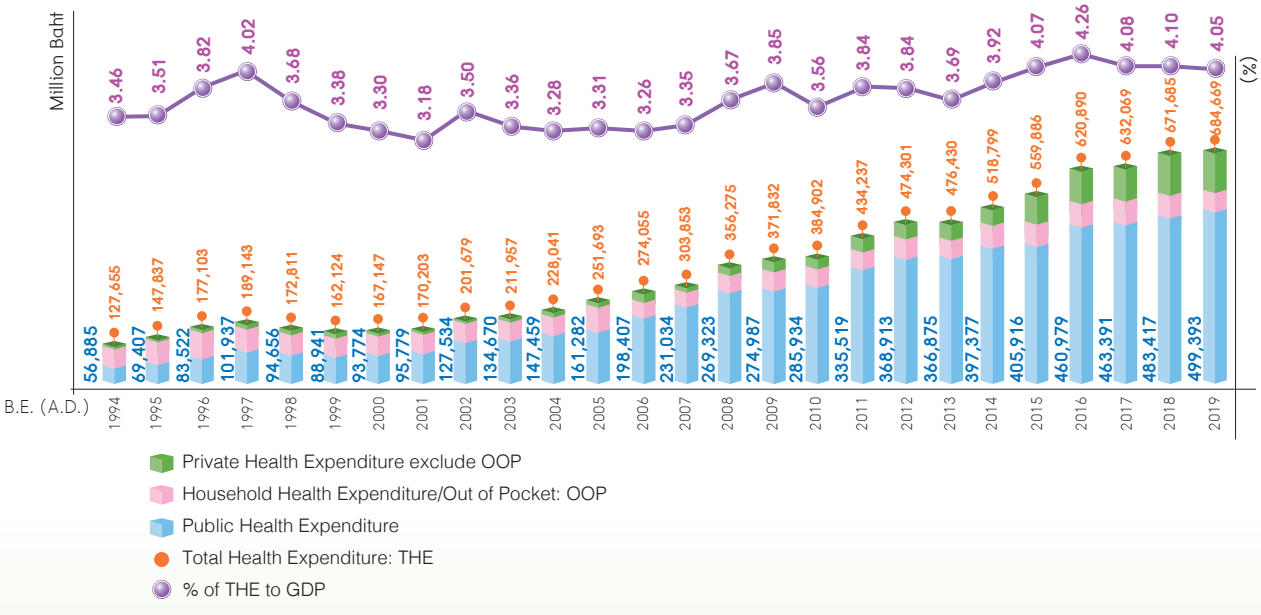
Source: Sustainable Development Report 2021, page 438-439; https://sdgindex.org/

3 Health Financial

Thailand has a Universal Health Coverage that has protected all Thai citizens since 2002, thereby, there are very few unmet health needs putting Thailand on par with OECD countries, which are high-income countries. Nevertheless, one critical question is how will the governmental shoulder the financial responsibilities to attain health sustainability consistently and to the adequacy of health expenditures. This inquiry is to ascertain that all citizens have access to health services, medicine, necessary technologies including preventing households from bankruptcy or impoverishment because of healthcare expenditures. Therefore, for longevity of health services, the healthcare finances are monitored using these significant indexes:

1. Total Health Expenditure (THE) per Gross Domestic Product (GDP) must be no less than 4.6% but no more 5%; it has been found that both the public and private heath sector had an increase in health expenditure while household expenditures have decreased. The THE per GDP is still below the allotted target of 2019 at .045 percent (Figure 1-6).

Figure 1-6 Number and percentage of Total Health Expenditure (THE) to Gross Domestic Product (GDP) in the Year 1994-2019

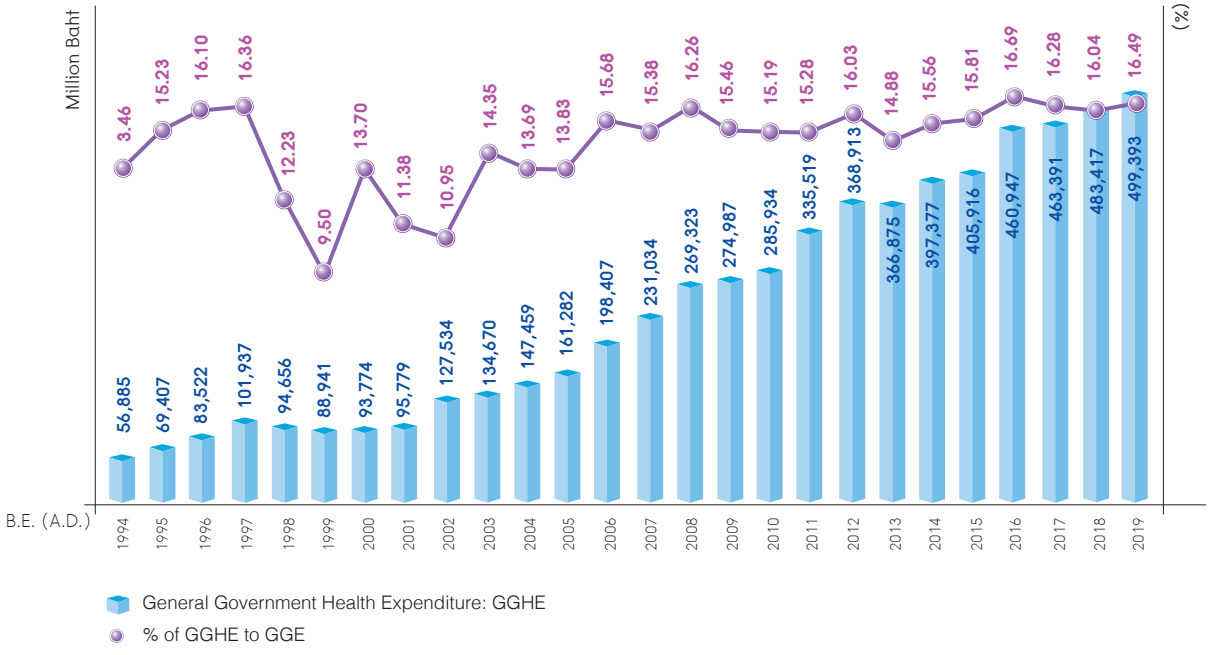


Source: National Health Account, 2019, International Health Policy Program: IHPP, MOPH

Notes: 1. GDP from World Development Indicators (WDI), World Bank, as of October 10th , 2020
Source: https://data.worldbank.org/country/thailand
2. The Total Health Expenditure (THE) in 2015-2016 was Recalculated Data
3. The Total Health Expenditure 2017-2019 used real data

2. General Government Health Expenditure (GGHE) per General Government Expenditure (GGE) must be no less than 17% but no more than 20%; there has been an increased in GGHE but still below that of the 2019's target at 16.49 percent (Figure 1-7).

Figure 1-7 Number and percentage of General Government Health Expenditure (GGHE) per General Government Expenditure (GGE) in the Year 1994-2019

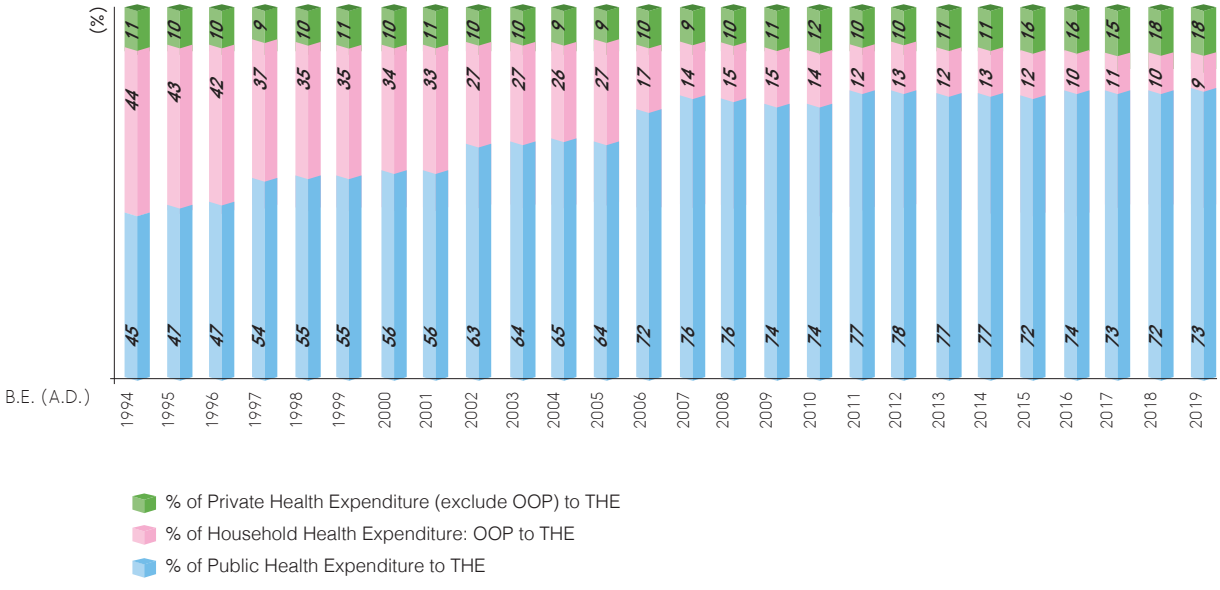


Source: National Health Account, 2019, International Health Policy Program: IHPP, MOPH

Notes: 1.GDP from World Development Indicators (WDI), World Bank, as of October 10th, 2020
Source: https://data.worldbank.org/country/thailand
2.The Total Health Expenditure (THE) in 2015-2016 was Recalculated Data
3.The Total Health Expenditure 2017-2019 used real data

3.In regards to Household Out of Pocket Payment, it has been found that the household health expenditures when compared to national health expenditure has decreased yearly from 44% in 1994 to 9% in 2019 while comparisons between public expenditure to Household Health Expenditure/ Out of Pocket (OOP) and Private Health Expenditure excluding OOP revealed that that public health expenditure has continuously increased from 45 percent in 1994 to 73 percent in 2019 (Figure 1-8).

Figure 1-8 Proportion of Total Health Expenditure classified by the source of health expenditure; Public, Out of Pocket: OOP and Private exclude OOP in the Year 1994-2019

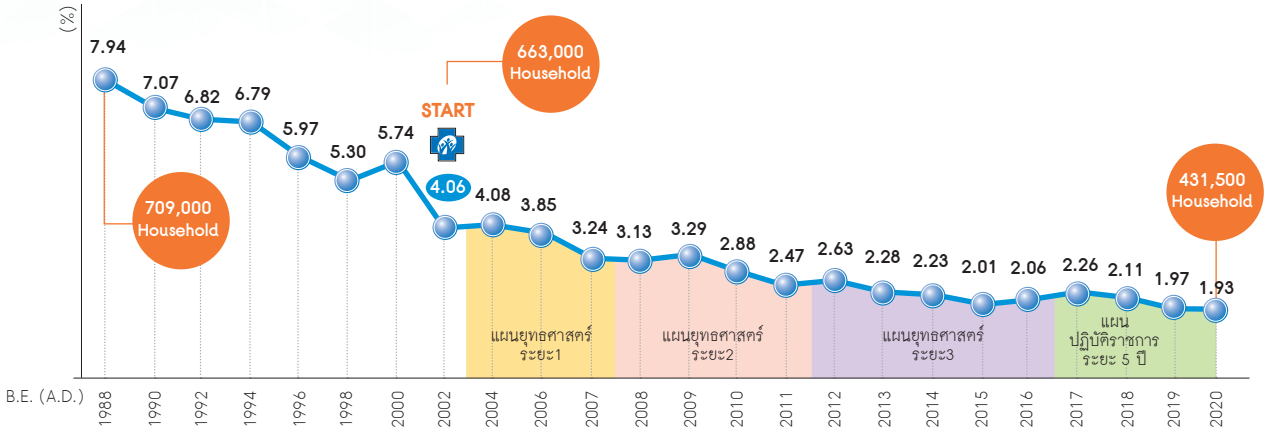


Source: National Health Account, 2019, International Health Policy Program: IHPP, MOPH

Notes: 1.GDP from World Development Indicators (WDI), World Bank, as of October 10th, 2020
Source: https://data.worldbank.org/country/thailand
2.The Total Health Expenditure (THE) in 2015-2016 was Recalculated Data
3.The Total Health Expenditure 2017-2019 used real data

4. Catastrophic Health Expenditure not over 2.3 percent index revealed that households whose health expenditure is over 10 percent of total household expenditure has been continuously decreasing as per the goals since in 2020, the index was at 1.93 percent (Figure 1-9).

Figure 1-9 Percentage of households with Catastrophic Health Expenditure in the Year 1988-2020)

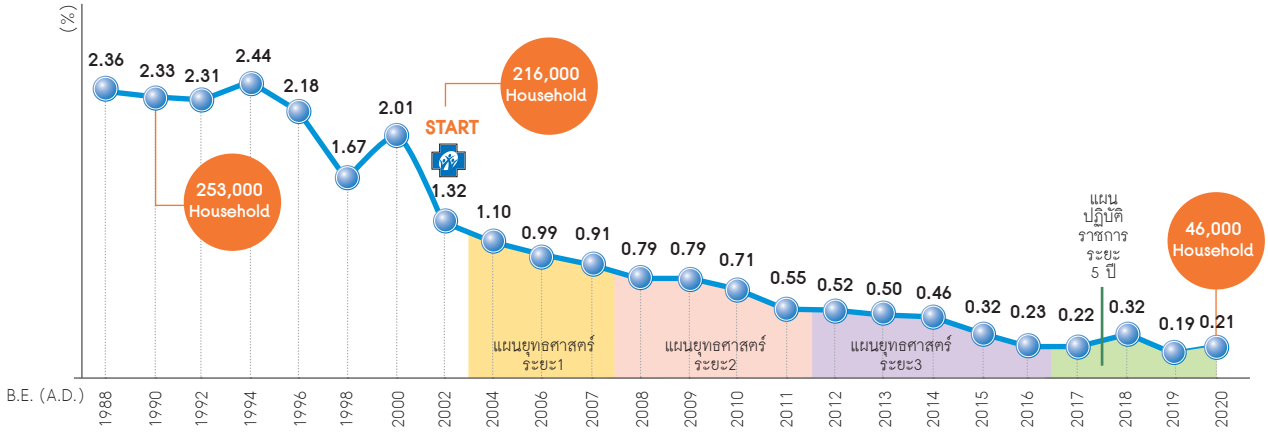


Source: Household Socio-Eeconomic Survey, National Statistical Office in 1988-2020, Analyze by International Health Policy Program: IHPP, MOPH

Notes: 1. Calculated from households with out-of-pocket health expenditure more than 10% of total out of pocket expenditure.
2. As of 2006, the National Health Statistic Office annually conducts the household socio-economic survey (household expenditure).

5.Health Impoverishment at no higher than 0.47 percent; it has been learned that households above poverty line that became impoverished had increased from 0.19 in 2019 percent to 0.21 in 2021 (Figure 1-10)

Figure 1-10 Percentage of households with Health Impoverishment in Year 1988-2020)



Source: Household Socio-Economic Survey, National Statistical Office in 1988-2020, Analyze by International Health Policy Program: IHPP, MOPH

Notes:
1. *Calculated from household with out-of-pocket health expenditure more than 10% of total Out of Pocket Expenditure.*
2. *Updated by recalculating and using poverty line from the annual survey of the National Health Statistic Office.*
3. *As of 2006, the National Health Statistic Office annually conducts the household socio-economic survey (household expenditure).*
4. *For the 2020 year, calculations were done by using the 2019's Poverty Line of the Office of the National Economic and Social Development, and adjusted for Customer Price Index (CPI) of 2020*

4 Universal Health Coverage System

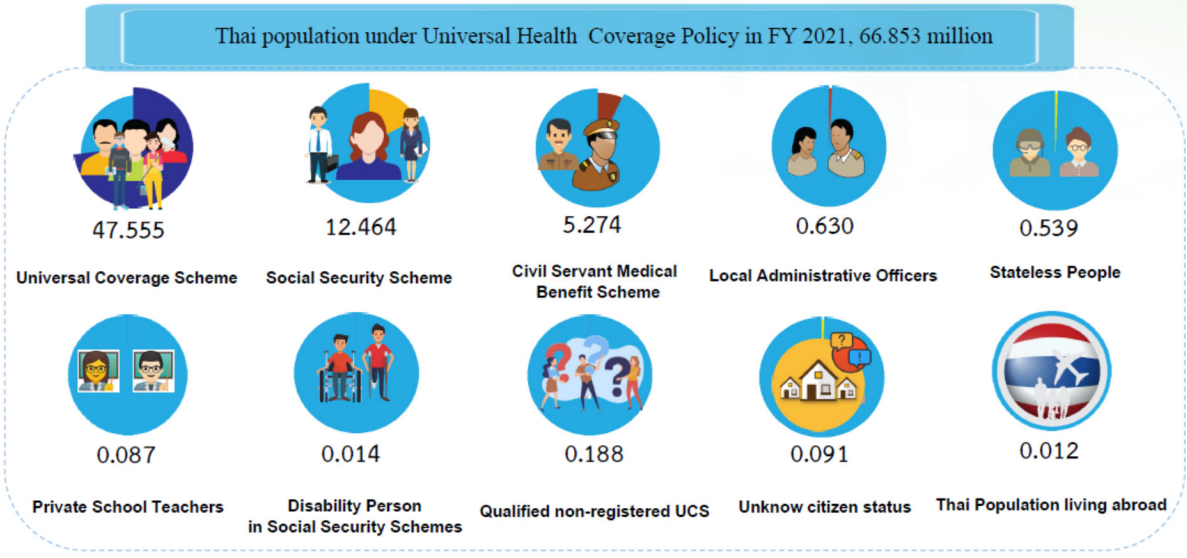
The Ministerial Cabinet's resolution on 25th March, 2015, had assigned the NHSO as the central unit to manage the National Beneficiary Registration Center (NBRC) for citizens to receive universal health coverage consisting of Civil Servant Medical Benefit Scheme (CSMBS), Social Security Scheme (SSS), Universal Coverage Scheme (UCS), and other government health insurances (private enterprise, Local Administrative Organizations, public organization, and agencies governed by specific acts).

In 2021, 66.853 million Thai citizens had rights to Universal Health Coverage of which 66.562 million had enrolled for the UHC. The **UHC of Thailand was at 99.57 percent** composed of 47.55 million beneficiaries of the UCS, 12.464 million individuals had access to SSS, 5.274 million individuals with the CMBS (the coverage for local governmental employees, teachers and disabled insurance), 0.731 million individuals registered for other medical benefits provided by the government and 0.540 million were individuals with undocumented status. There are still 0.188 million individuals, who had not registered to a contracted unit, 0.091 million individuals not residing in their registered residence (awaiting confirmation of coverage), and 0.012 million Thai citizens living abroad, or 0.43 percent.

Of the 47.743 million eligible beneficiaries of the Universal Coverage Scheme (Gold Card/ UC), 47.555 million had also registered for the benefit, or calculated as a coverage of 99.61 percent of the UC; however, there are still 0.188 million individuals, or 0.39 percent, who has not registered to a contracted unit for health services (Figure 1-11) (Tables 1-1 and 5-1 in Appendix 5).

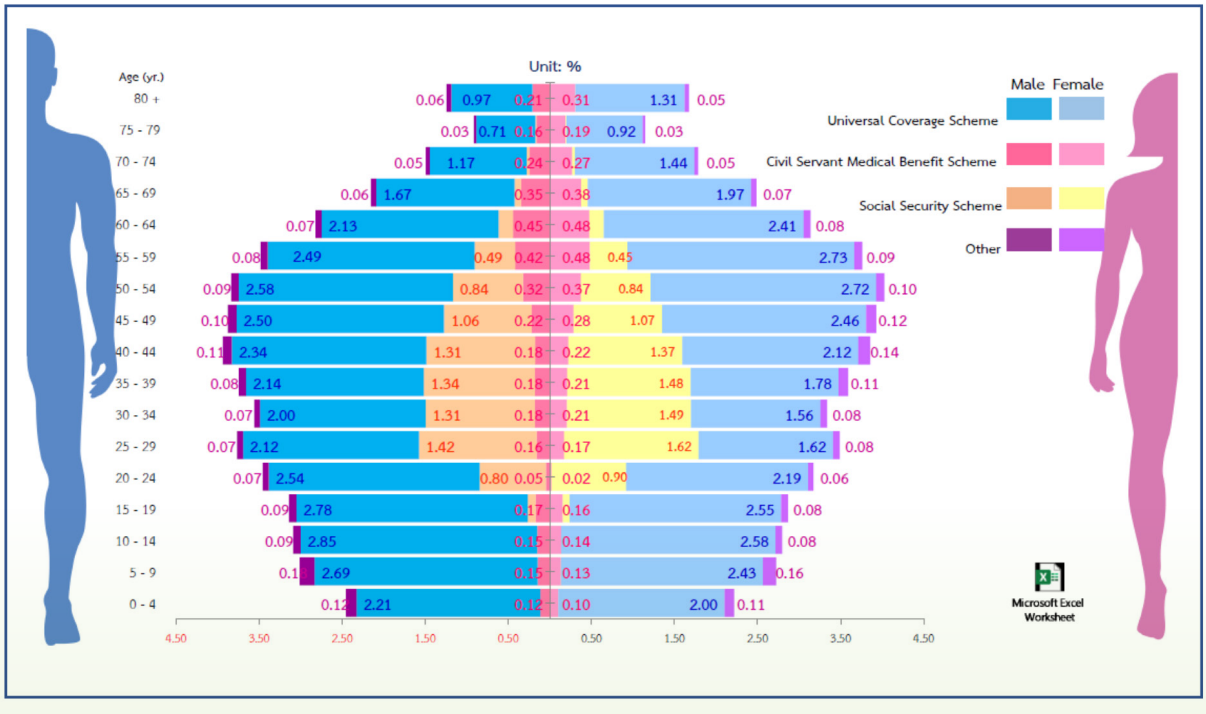
Upon examination based on age distribution, as classified by rights, it has been found that the majority of eligible persons under the UCS were children (0-19 years old) and the elderly (60 years and above), while those eligible under the SSS were working-age (25-49 years), and the eligible under CSMBS was distributed amongst all age groups, particularly, in the 40 years and over (Figure 1-12).

Figure 1–11 Number of Thai Population classified by Health security schemes in the Fiscal Year 2021)



Source: Fund Management Unit, NHSO, data as of September 30th , 2021

Figure 1–12 Proportion of Thai Population classified by gender, age group, and health security schemes in the Fiscal Year 2021



Source: Fund Management Unit, NHSO, Data as of September 30th, 2021

Table 1–1 Number of Thai populations in all Health security schemes in the Fiscal Year 2017-2021

Unit: Persons

Health security schemes	2017	2018	2019	2017	2017
1. Universal Coverage Scheme: UCS	48,109,957	47,802,669	47,522,681	47,604,743	47,555,113
2. Social Security Scheme: SSS	11,857,751	12,237,637	12,584,458	12,551,583	12,464,007
3. Civil Servant Medical Benefit Scheme: CSMBS	4,939,627	5,053,330	5,149,480	5,194,664	5,273,511
4. Local Administrative Officers: LAOs	607,577	625,316	625,823	638,563	630,414
5. Stateless People: STP	381,881	377,713	521,835	540,471	538,508
6. Private School Teachers: PVT	88,647	90,598	86,965	79,167	86,861
7. Disability Person in Social Security Schemes: DIS	28,205	18,533	16,667	15,681	13,923
8. Qualified non-registered UCS	33,100	39,351	55,922	72,459	187,816
9. Unknown citizen status	112,431	107,442	100,803	95,254	90,584
10. Thai Population living abroad: FRG	14,942	14,045	13,211	12,614	11,841
11. Foreigners: NRD	362,908	411,528	370,387	384,165	401,352
12. Foreigners with Insurance: NRH	86	80	80	80	80
13. Total Population	66,537,112	66,778,323	67,048,312	67,189,444	67,254,010
14. UHC Population: 1+2+3+4+5+6+7+8+9+10	66,046,745	66,245,228	66,563,831	66,805,199	66,852,578
15. Registered UHC Population: 1+2+3+4+5+6+7	66,013,645	66,205,796	66,507,909	66,624,872	66,562,337
16. UCS Population: 1+8	48,143,057	47,842,020	47,578,603	47,677,202	47,742,929
17. Universal Health Coverage (15/14*100)	99.95	99.94	99.92	99.73	99.57
18. Universal Coverage Scheme (1/16*100)	99.93	99.92	99.88	99.85	99.61

Source: Fund Management Unit, NHSO, Data as of September 30th , 2021

Notes: 1. In FY 2020, the calculation of Percentage of Universal Coverage Scheme coverage was changed from the previous year.

Previous formula:

$$\text{Percentage of UHC} = \frac{\text{number (no.) of individuals eligible under UCS + no. of individuals eligible under other health insurance schemes + no. of undocumented individuals x 100}}{\text{no. of individuals eligible under UCS + no. of individuals eligible under other health insurance schemes + no. of undocumented individuals – non-registered individuals}}$$

Revised formula:

$$\text{UHC} = \frac{\text{no. of individuals eligible under UCS + no. of individuals eligible under other health insurance schemes + no. of undocumented individuals x 100}}{\text{no. of individuals eligible under UCS + no. of individuals eligible under other health insurance schemes + no. of undocumented individuals – non-registered individuals + no. of individuals without household registrations + number of Thai citizens living abroad}}$$

$$\text{2 . Percentage of UCS} = \frac{\text{no. of individuals eligible under UCS x100}}{\text{no. of individuals eligible under UCS+ no. of unregistered individuals}}$$

SECTION

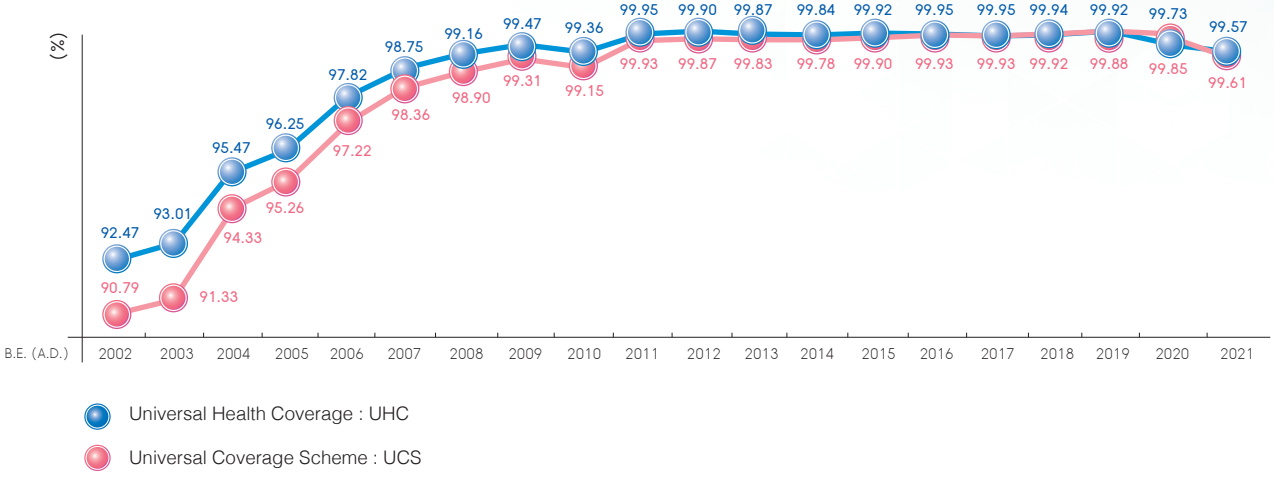
2

Overview Results of Universal Coverage Scheme

1 Universal Coverage Scheme: UCS

The Universal Coverage Scheme is the major health coverage for Thai citizens not protected by other forms of insurance under the guidelines of Universal Health Coverage 2002. 99.61 percent of individuals are protected by the Universal Health Coverage and 99.57 percent under the Universal Coverage Scheme in 2021 (Figure 2-1).

Figure 2-1 Proportion of Thai Population classified by gender, age group, and health security schemes in the Fiscal Year 2021



Source: Fund Management Unit, NHSO, Data as of September 30th ,2021

Notes: 1. In FY 2020, the calculation of Percentage of Universal Coverage Scheme coverage was changed from the previous year.

Previous formula:

$$\text{Percentage of UHC} = \frac{\text{number (no.) of individuals eligible under UCS + no. of individuals eligible under other health insurance schemes + no. of undocumented individuals x 100}}{\text{no. of individuals eligible under UCS + no. of individuals eligible under other health insurance schemes + no. of undocumented individuals – non-registered individuals}}$$

Revised formula:

$$\text{UHC} = \frac{\text{no. of individuals eligible under UCS + no. of individuals eligible under other health insurance schemes + no. of undocumented individuals x 100}}{\text{no. of individuals eligible under UCS + no. of individuals eligible under other health insurance schemes + no. of undocumented individuals – non-registered individuals + no. of individuals without household registrations + number of Thai citizens living abroad}}$$

$$\text{2. Percentage of UCS} = \frac{\text{no. of individuals eligible under UCS x100}}{\text{no. of individuals eligible under UCS+ no. of unregistered individuals}}$$

2

Benefit Package of Universal Coverage Scheme

The fiscal year 2021 had seen an Upgrade of Gold Card by adding 4 services: 1. Primary Healthcare Anywhere, 2. In-patients do not need referral forms, 3. Cancer Anywhere treatment, 4. Transfer of service units without the mandatory 15 days wait, acupuncture or acupuncture with electrical stimulation for new stroke patients, Automated Peritoneal Dialysis (APD), oral Capecitabine drug for intestinal, stomach and breast cancer treatments to be administered at home, or home chemotherapeutic drug: Sofosbuvir/ Velpatasvir Antiviral for all strains of Hepatitis C, usage of cannabis oil for cancer, Parkinson's and migraine treatments including cannabis oil extracts for treatment of epilepsy and end-stage cancer. The benefits continue with liver transplantation for decompensated and compensated cirrhosis, Human Leukocyte Antigen (HLA) allele-B*5801 screening before administration of Allopurinol to new gout patients, Tuberculosis screening by chest x-rays for all at-risk groups including laboratory techniques for tuberculosis patients and Molecular assays for drug-resistant tuberculosis. The services also include Extracorporeal Membrane Oxygenator (ECMO) for treatment of cardiac illnesses or acute respiratory distress, provision of Rechargeable cochlear implants for children undergoing cochlear implant surgery and who are under the age of 5 with 90 dB hearing and have not practice sign language. Cancer patients can undergo PET/CT scans for 1. Determining the stage of non-small cell lung cancer (NSCLC), 2. Determining early-stage and assess effects of chemotherapy during and after completion of treatment for Hodgkin's Lymphoma patients (Figure 2-2) (Table 2-1).

In addition, the NHSO had added services in confluence with the New Normal lifestyle as per the COVID-19 crisis by establishing out-of-health-centers servicing units and also in communities to decrease congestion with the service centers and promotion of Social Distancing starting with community pharmacies (next door pharmacies), medication deliveries to citizens'' homes, telehealth/telemedicine, out-of-laboratory service testing centers (blood test near homes), nursing and midwifery, physical therapy at home or in the community, chemotherapy services at home for large intestines cancer patients.

Table 2-1 Development of UCS Benefit package in the Fiscal Year 2002-2021

Year	Benefits
2002	• All Thai citizens are covered by UHC and have access to health promotion, disease prevention, treatment, medical rehabilitation and National Essential Drug List as required
2003	• Reduced waiting list for cataract lens replacement surgery
2004	• Established medical rehabilitation fund • Established UHC Customer Coordination Center
2005	• Added care for HIV/AIDS patients (Antiretrovirals, laboratory procedures, voluntary blood test counseling, free condoms)
2006	• Established the local, or community, National Health Security Fund • Established NHSO service centers within service units • Implemented Compulsory Licensing (CL) for expensive, life-saving drugs
2007	• Heart surgery queue reduction program (from 2 years to 6 months) • Added Thai Traditional Medicine • Access to care for treatment of diseases with high costs
2008	• Added Renal Replacement Therapy for end-stage chronic kidney failures • Added Methadone, an opioid derivative, for rehabilitation of addicts
2009	• Increased access to high-cost medicine (Category E2) • Shortened queue for urinary stone surgeries • Added Influenza vaccinations • Established complaint units independent of the defendant as per the Article 50 (5)
2010	• Expanded the UC benefits to undocumented persons • Increased access to orphan drugs/ Thai traditional drugs • Extended CL drugs deadline • Abolished the inpatient time limit for psychiatric patients for prolonged treatment
2011	• Screening for complications in Diabetes Mellitus and Hypertension
2012	• Added liver transplantation for under 18 years old with congenital bile duct obstruction • Added heart Transplantation • Launched UCEP • Application for changes of services up to 4 times a year
2013	• Expansion of the seasonal influenza vaccinations • Added stem cell transplantation for leukemia and lymphoma
2014	• Established National Clearing House (NCH) • Integrated a single standard cancer treatment service • Provision of additional funds to remote and risky areas including the southern region
2015	• Added 4 items to the list of E2 drugs: Trastuzumab for early-stage breast cancer patients, Peginterferon for Hepatitis C Strains 2,3 Strains 1,6 and Nilotinib for HIV-positive patients and Dasatinib for Leukemia and Lymphoma patients • Access to Antiretroviral drugs (ARV) regardless of CD4 count • Unlimited deliveries
2016	• Integrated all 3 public health insurance schemes' databases to reduce inequality • Increased HIV prevention services for high-risk groups such as MSM, TG, MSW, FSW, PWID • Long term care for dependent elderly • Care for chronic psychiatric patients in communities
2017	• Expanded cervical cancer screening service • Implemented the Universal Coverage for Emergency Patients (UCEP) from 1st April, 2017; an expansion from the 3 Emergency funds policy

Year	Benefits
2018	• Implemented Primary care cluster (PCC) program • Administration of Human papillomavirus vaccine (HPV vaccine) for Grade 5 students • Screenings for colon cancer • Screenings and added medications for Hepatitis C • Added 12 items to One Day Surgery (ODS)
2019	• Expanded E2 drug lists - Added the 5-in-1 vaccine consisting of vaccines for diphtheria, tetanus, pertussis, Hepatitis B and encephalitis (DTP-HB-Hib) - Rabies vaccine - Raltegravir (for prevention of mother-to-fetal transmission) - antiretroviral - Bevacizumab for central retinal vein occlusion • Added 7 items for prevention of diseases in pregnant women and infants 1. Check for Thalassemia in pregnant women and husbands 2. Screenings for Down Syndrome in women above 35 years of age 3. Screenings for thyroidal hormone disorders in infants 4. Added antenatal care 5. Semi-permanent contraception (intrauterine device/ contraceptive implants) for women under 20 years of age 6. Semi-permanent contraception (intrauterine device/ contraceptive implants) for women under 20 years of age in cases of pregnancy termination 7. Added cervical cancer screenings • Add 24 one-day surgeries (ODS) items • Added one Minimally Invasive Surgery (MIS) item
2563	• Added 31 one-day surgeries (ODS) items • Added three Minimally Invasive Surgery (MIS) items • Treatment cand care of 24 Rare Diseases- Inherited Metabolic Disorders of small molecules • Stem cell transplant for Thalassemic patients • Rotavirus vaccinations for 2-6 months infants • Down Syndrome screenings for pregnant under the age of 35 • Screening for cervical cancer using HPV DNA test • Fluoride varnish for children aged 4-12 years and dental sealants for children 6-12 years • Community-based care for bed -ridden patients in all age groups and under all health insurance schemes • Piloted home chemotherapy for colon cancer patients • Added Pre-Exposure Prophylaxis (PrEP) for at-risk HIV groups or those with HIV-at-risk behaviors • Added cost for non-ER patients requiring help outside of governmental hours to increase efficiency in the ER for a quality ER • Piloted Automated peritoneal dialysis (APD) for HIV/AIDS patients • Initiated the New Normal public healthcare, where services were transferred outside the service units and ensuring that individuals maintained social-distancing due to the COVID-19 pandemic; the New Normal services includes community pharmacies (near home pharmacies), drugs delivery to patients' house, telehealth/telemedicine, laboratory procedures done out of service units (blood test near home), nursing and midwifery, and physical therapy at home or community
2564	• Gold Card Upgrade services for: 1. Ill citizens can be treated at any Primary Health Care (Primary Health Care anywhere) (2021: piloted in Health Regions 7-10 of the northeastern region and Health Region 13 Bangkok, 2022: expanded nationwide) 2. Paperless referral systems for patients (piloted in Health Region 9 Nakhorn Ratchasima, and Health Region 13 Bangkok, 2021: expanded nationwide) 3. Cancer patients can be treated anywhere (Cancer Anywhere) (Nationwide) 4. Immediate transfer of service units without the 15 days wait • Increase One Day Surgery (ODS) items from 31 to 45 and from 4 Minimally Invasive Surgery (MIS) items to 9 • Expanded screenings for intestinal cancer using Fit Test for all schemes and screenings for Down Syndrome to women of all ages • Added acupuncture, or electrical acupuncture, for new stroke patients • Added Intermediate care (IMC) for new stroke patients, traumatic brain injury and spinal cord injury • Automated Peritoneal Dialysis (APD) • Added three cancer drugs: 1. Capecitabine tablets for treating cancers of the intestines, stomach and breast for home chemotherapy; 2. Oxaliplatin injection, and 3. Irinotecan HCl Injection for large intestinal cancer patients within 2 hours, who initially had to be hospitalized for 2 days

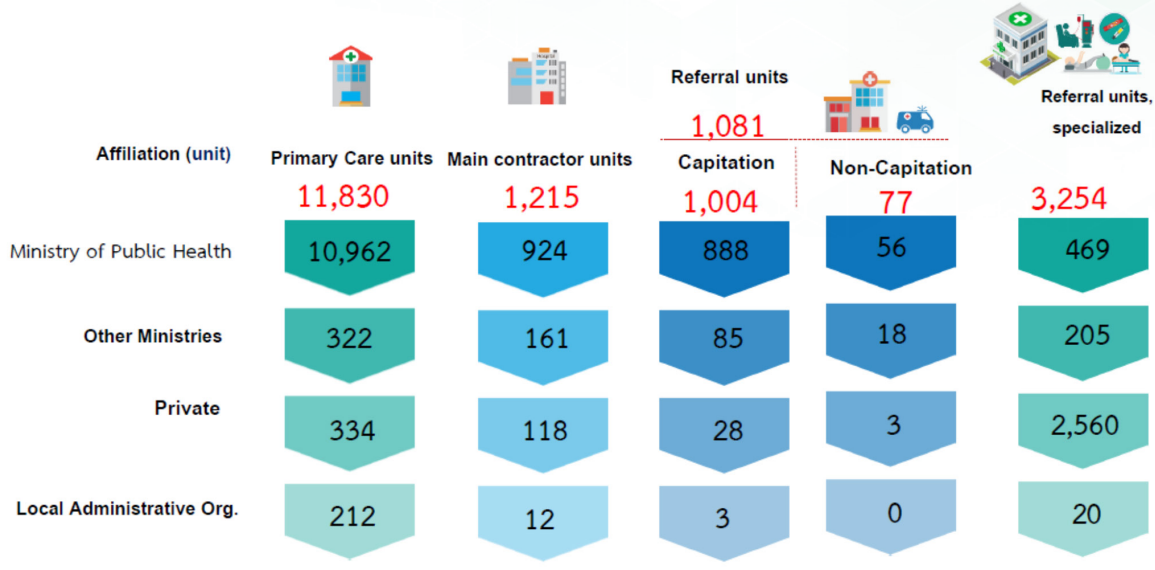
Year	Benefits
	• Fixed-dose combination Sofosbuvir/Velpatasvir, a Hepatitis C Direct Acting Antiviral (HCA DAA) for all strains of Hepatitis C • Utilization of cannabis oil for cancer, Parkinson's and migraine patients while cannabis extract for end-stage cancer patients and epileptic patients • Added liver transplant for decompensated and compensated cirrhotic patients • Added screenings for Human Leukocyte Antigen allele-B*5801 (HLA-B*5801) before prescriptions of Allopurinol in new gout patients • Added Extracorporeal Membrane Oxygenator (ECMO) for cardiac illness or acute respiratory distress • Screenings for tuberculosis using Chest X-Ray (CXR) in all at-risk groups and laboratory tests for tuberculosis while molecular assay for drug-resistant tuberculosis • Hearing screenings in 0-6 months high-risk newborns • Added rechargeable cochlear implants for under 5 years old receiving cochlear implant surgeries and can hear only at a range higher than 90 dB and have never learned sign language • Cancer testing using PET/CT scan as an alternative for 1. Non-small cell lungs cancer (NSCLC) stage evaluation, 2. Assessment of initial disease stage and assessment of response during chemotherapy and at the end of chemotherapy treatment in Hodgkin's lymphoma (HL) patients

3 UCS Healthcare Units

The Universal Coverage Scheme's healthcare providers consist of primary care units, main contractors, referral units and referral units with specialists of 15 specialties such as hemodialysis, stem cell transplant, health promotion and disease prevention unit, internal medicine, dentistry, pharmacy, Thai medicine, nursing and midwifery, physical therapy, medical rehabilitation. These units are inclusive of public and private sectors providing comprehensive healthcare services for citizens to have convenient access according to the registered services of the unit.

In the 2021 fiscal year, there were a total of 14,549 contracted units; each contracted unit can register as more than one type of service unit under the UCS and are composed of 1. 11,830 Primary Care Units, 2. 1,215 Main Contractors, 3. 1,081 Referral Units of which 1,004 units were reimbursed based on the capitation payment while 77 units were reimbursed based on the non-capitation payment system, and 4. 3,254 referral units with specialties (Figure 2-3) (Table 2-2 and Appendix Table 5-2).

Figure 2-3 Number of UCS Healthcare units in the Fiscal Year 2021



Source: *Fund Management Unit, NHSO, Data as of September 30th, 2021*

Notes:
1. *The service units can register as more than 1 type of UCS service unit*
2. *Referral units under capitation payment system are units that receive pay according to the number of patients while the referral units reimbursed via the non-capitation system are units that are compensated by methods other than the capitation system*
3. *Other affiliated ministries are Ministries of Interior, Ministry of Defense, and Ministry of Higher Education, Science, Research and Innovation Education*

Table 2-2 Number of UCS Healthcare units classified by Types of Registered and Affiliation in the Fiscal Year 2021

Units

Types of Registered	Total	MOPH, Office of Permanent Secretary	MOPH, Other Department	Other Ministry	Private	Specially Affiliation	Local Government
1. Primary care units	11,830	10,953	9	312	334	10	212
2. Main contractor units	1,215	915	9	158	118	3	12
3. Referral units	1,081	883	61	99	31	4	3
- Capitation [1]	1,004	883	5	82	28	3	3
- Non-Capitation [2]	77	-	56	17	3	1	-
4. Referral units, specialized	3,254	385	84	185	2,560	20	20
- Hemodialysis (HD)	663	241	5	64	338	5	10
- Percutaneous Coronary Intervention (PCI)	78	33	3	21	19	2	-

Units

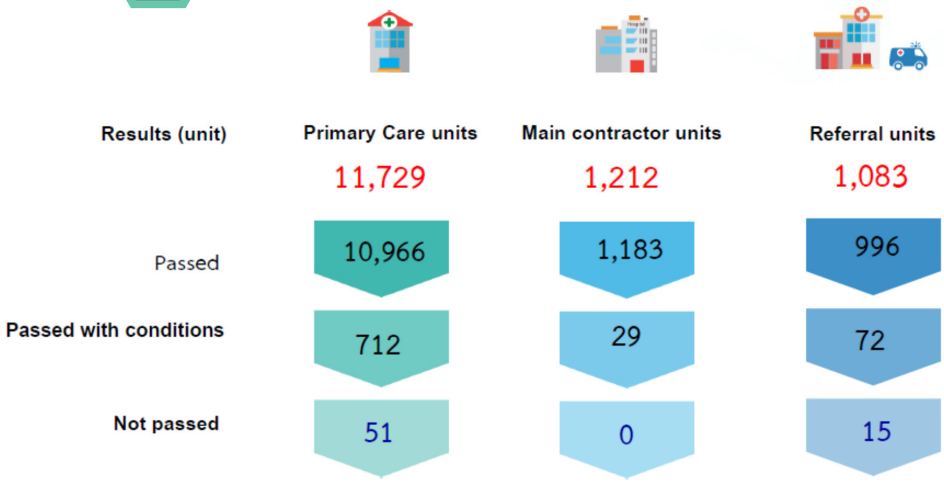
Types of Registered	Total	MOPH, Office of Permanent Secretary	MOPH, Other Department	Other Ministry	Private	Specially Affiliation	Local Govern-ment
- Cardiovascular surgery	58	26	4	16	11	1	-
- Radiotherapy cancer patients	39	13	9	11	5	1	-
- Hematopoietic stem cell transplantation (HSCT)	11	3	-	7	-	1	-
- Medical laboratory technologist	140	1	33	9	94	3	-
- Medicine	191	24	1	6	145	7	8
- Dental	55	5	1	5	43	-	1
- Pharmacy	1,482	-	-	17	1,465	-	-
- Physical therapy	27	-	-	1	26	-	-
- Thai traditional medicine	17	12	2	3	-	-	-
- Medical rehabilitation	4	-	-	-	4	-	-
- Nursing and Midwifery	28	-	-	1	27	-	-
- Promotion and Prevention	457	24	26	23	383	-	1
- Field hospitals for Covid-19 patients	4	3	-	1	-	-	-
5. No services [3]	190	62	3	16	3	3	103
Total, Duplicated units [4]	**17,570**	**13,198**	**166**	**770**	**3,046**	**40**	**350**
UCS Healthcare units [5]	**14,549**	**11,077**	**102**	**406**	**2,613**	**23**	**328**

Source: Fund Management Unit, NHSO, Data as of September 30th, 2021

Notes
1. *Capitation are referral units that are reimbursed according to the number of patients*
2. *Non-capitation are referral units that are compensated by other methods than the capitation system*
3. *No services units are public healthcare units registered with the Ministry of Public Health with no intention of services such as community public health centers, community health center, municipal public healthcare center*
4. *Total, Duplicated units are all units that have been calculated repeatedly since a unit can be registered as more than one type of service units*
5. *UC healthcare units are UC healthcare units that have not been calculated repeatedly as per the registration*

An evaluation of healthcare units registered with the UCS revealed that the primary care units, main contractors, referral units and referral units with specialties that had passed the assessment criteria (inclusive of assessment passes and assessment passes with conditions) were at 99.57 percent, 100 percent and 98.61 percent respectively (Figure 2-4) (Appendix Table 5-3).

Figure 2-4 Results of UCS Healthcare unit assessment in the Fiscal Year 2021



Source: Fund Management Unit, NHSO, Data as of September 30th, 2021

Table 2-3 Results of UCS Healthcare unit assessment classified by Types of Registered and Affiliation in the Fiscal Year 2021

Units

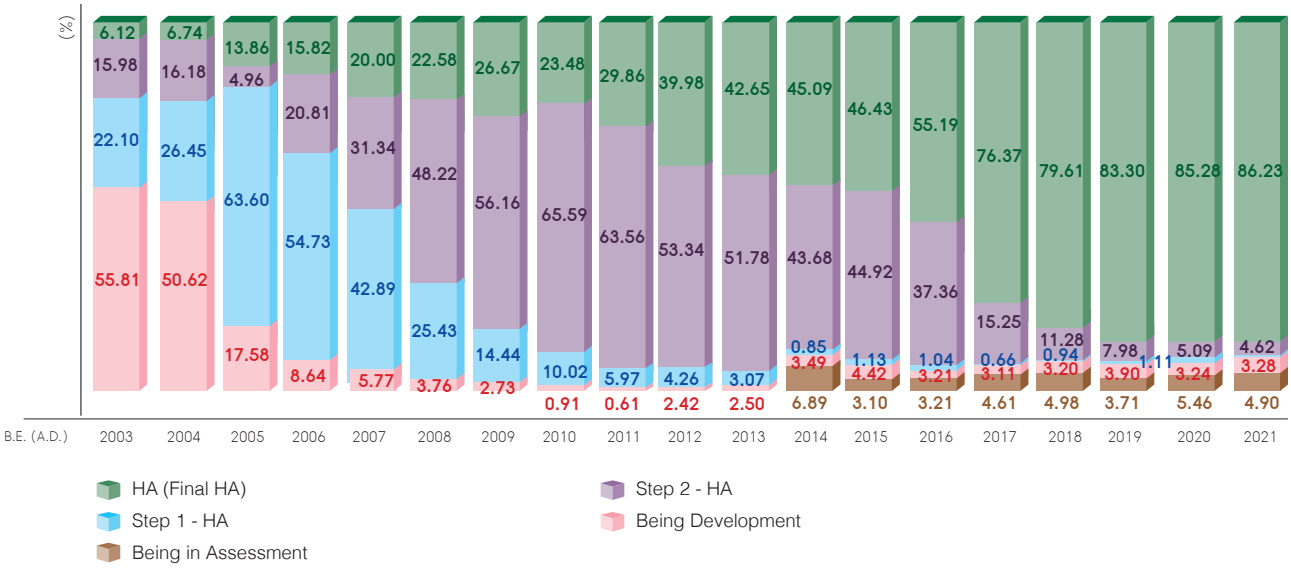
Types of Registered	Total	MOPH, Office of Permanent Secretary	MOPH, Other Department	Other Ministry	Private	Specially Affiliation	Local Govern-ment
1. Primary care units	11,729	10,937	8	249	312	10	213
- Passed	10,966	10,356	7	207	203	8	185
- Passed with conditions	712	544	1	32	109	2	24
- Not passed	51	37	0	10	0	0	4
2. Main contractor units	1,212	912	6	157	122	3	12
- Passed	1,183	903	6	143	117	3	11
- Passed with conditions	29	9	0	14	5	0	1
- Not passed	0	0	0	0	0	0	0
3. Referral units	1,083	99	3	60	881	5	35
- Passed	996	77	1	51	841	3	23
- Passed with conditions	72	16	2	4	38	0	12
- Not passed	15	6	0	5	2	2	0

Source: Fund Management Unit, NHSO, data as of March 9th, 2021

Quality Audit and Hospital Accreditation

The Referral units, under UCS, have had a quality and standard development as required by the Hospital Accreditation process: HA. In the FY 2021, 91.22 percent of referral units (987 units from 1,082 units were assessed for accreditation) received accreditation at different steps. Of these, 85.28 percent (921 units) received accreditation at HA Step, 3.24 percent (35 units) were under development and 4.90 percent (53 units) were under the accreditation process (Figure 2-5) (Appendix Table 5-4)

Figure 2-5 Proportion of UCS Hospitals classified by Level of Accreditation in the Fiscal Year 2003-2021



Source: *The Hospital Accreditation Institue, Data as of September 30th, 2021.*
Analyse by Monitoring and Evaluation Cluster, NHSO

Notes: 1. *Registration as Referral Units with National Health Security System (Capitation and Non-capitation) from the Bureau of Registration, data as of December 1st , 2019*
2. *Hospital Accreditation Certification by the Healthcare Accreditation Institute (Public Organization), data as of September 30th, 2021*

Table 2–4 Number and percentage of UCS Hospitals classified by Level of Accreditation and Affiliation in the Fiscal Year 2021

Units

Level of HA	Total	MOPH, Office of Permanent Secretary	MOPH, Other Department	Other Ministry	Private	Specially Affiliation	Local Govern-ment
1. Assessed Hospital [1]	1,082	881	61	99	36	3	2
2. HA Accreditation	987	833	52	79	20	2	1
- HA Certified (Final HA)	933	805	51	70	5	2	0
- Step 2 – HA Certified	50	25	1	9	14	0	1
- Step 1 – HA Certified	4	3	0	0	1	0	0
3. Being developed [2]	42	19	4	13	5	1	0
4. Being in assessment	53	29	5	7	11	0	1

Source: The Hospital Accreditation Institue, Data as of September 30th, 2021.
Analyse by Monitoring and Evaluation Cluster, NHSO

Notes: 1. Registration as Referral Units with National Health Security System (Capitation and Non-capitation) from the Bureau of Registration, data as of December 1st, 2019
2. Hospital Accreditation Certification by the Healthcare Accreditation Institute (Public Organization), data as of September 30th, 2021

4 National Health Security Fund

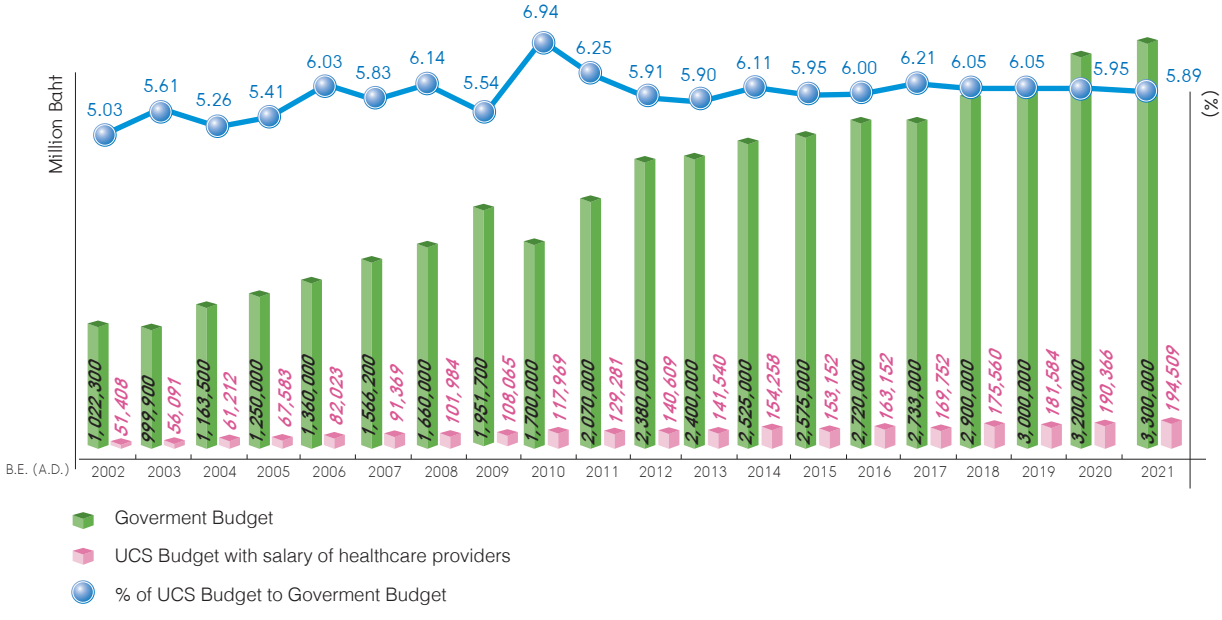
The 2021 fiscal year was allotted 194,508.79 million of the National Health Security Fund budgets, which was an increase of 4,43 million baht from 2020, or a 5.89 percent increase. However, in ratio of the National Health Security Fund budget to the total country's budget, there has been a continuous decrease in 2019 and 2020 at 6.05 percent and 5.95 percent, respectively (Figure 2-6). The NHSF is composed of:

1. Medical Services Capitation for 47.644 million beneficiaries amounting to a total of 177,198.99 million baht and at 3,719.23 baht per beneficiary divided into 1,280 baht for outpatient services, 1,440 baht for inpatient services, 455 baht for health promotion and disease prevention services and 544 baht for other services.

2. Additional budget for specific groups amounting to 17,309.80 million baht classified into 3,676.35 million baht for HIV-positive and AIDS patients, 9,720.28 million baht for chronic renal failure patients, 1,163.21 million baht for chronically ill patients, 1,490.29 million baht for impoverished/ at-risk areas, 838.80 million baht for dependency persons, and 421.64 million baht for Primary care units with family doctors.
3. The 2021 fiscal year does not include the governmental loans Rounds 1 to 4 for the purpose of mitigating the COVID-19 crisis and relevant services at 30,348.348 million baht.

(Figures 2-6, 2-7, 2-8, 2-9) (Tables 2-5 and 2-6)

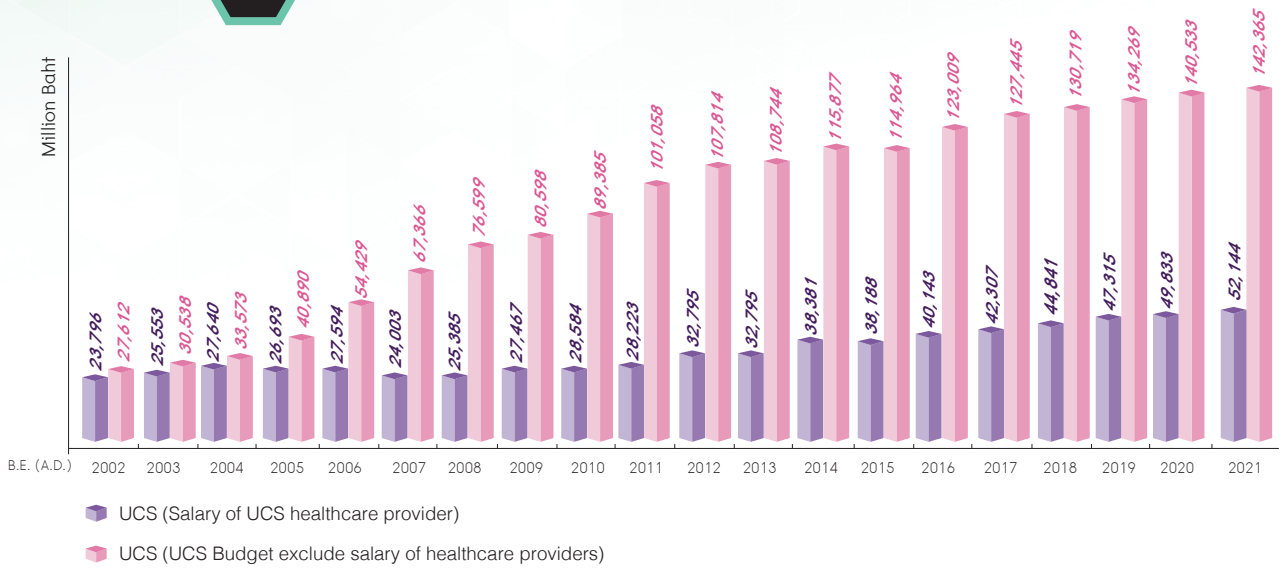
Figure 2-6 Number and percentage of UCS Budget and Government Budget in the Fiscal Year 2002-2021



Source: National Health Security Commission Guidelines for the implementation and management of the National Health Security Fund

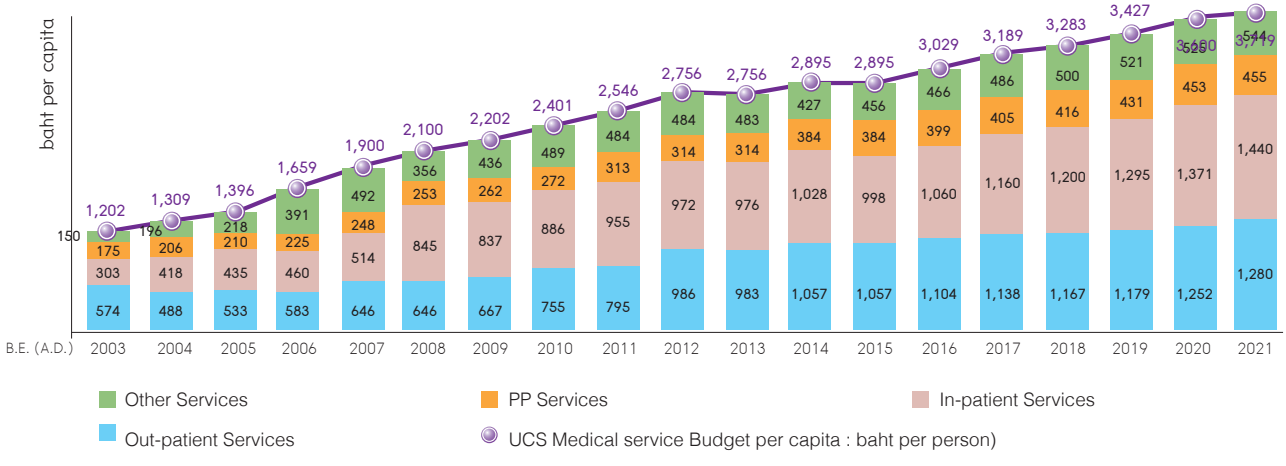
Notes:
1. *The Fund received additional appropriations in 2003-2006 in the amount of 5,473.46 million baht, 5,000 million baht, 3,845.33 million baht, 4,993.33 million baht, and 14,761.83 million baht respectively. Moreover, during 2017-2018, the cabinet approved a central reserve fund for emergency situations, or a necessity reserve, to compensate public health services of the Ministry of Public Health in the amount of 3,979.41 million baht (excluding salary 1,000 million baht), and 4,186.13 million baht (excluding medical compensation 1,000 million baht) respectively.*
2. *The FY 2020 did not include central budget: expense reserved for emergency or Corona virus-19 (COVID – 19) in the amount of 2,282.088 million baht.*
3. *The FY 2021 excluding 2021 COVID-19 Governmental Loans Act, Rounds 1-4, for management of COVID-19 pandemic and other related services at a total of 30,348.348 million baht*

Figure 2-7 Number of UCS Budget in the Fiscal Year 2002-2021



Source: National Health Security Commission Guidelines for the implementation and management of the National Health Security Fund

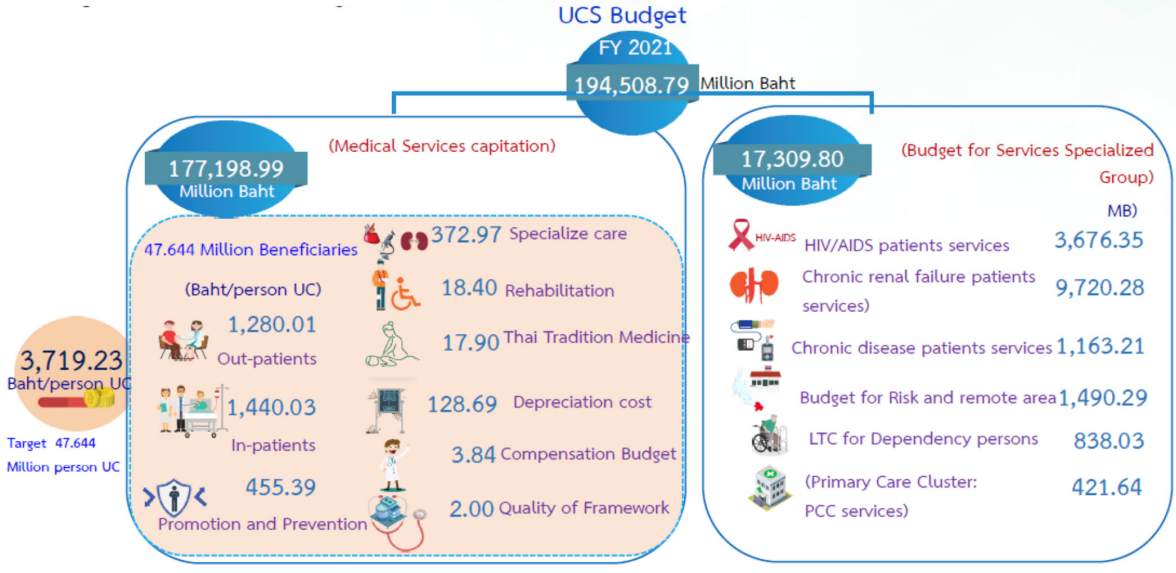
Figure 2-8 UCS Medical Service Budget per capita in the Fiscal Year 2003-2021



Source: National Health Security Commission Guidelines for the implementation and management of the National Health Security Fund

Notes: 1. Other services except for in-patient services, out-patient services, prevention, and promotion services such as specific services, rehabilitation services, Thai traditional medicine services, depreciation (investment budget), preliminary aid to providers, and additional expense according to criteria and quality of services.

Figure 2-9 Detail of UCS Budget in the Fiscal Year 2021



Source: *National Health Security Commission Guidelines for the implementation and management of the National Health Security Fund*

Notes: *Medical Services Capitation of 177,198.99 million baht inclusive of personnel salary under UC system totaled to 52,143.98 million baht for 47.644 million UC beneficiaries.*

Table 2-5 Number of UCS Budget classified by medical services categories in the Fiscal Year 2017-2021

Unit: million baht

Medical services categories	2017	2018	2019	2020	2021
1. Medical Services Capitation	155,628.60	160,205.75	166,445.23	173,750.40	177,198.99
1.1 Medical Services exclude salary of UCS healthcare providers	113,321.37	115,365.21	119,130.27	123,917.82	125,055.02
1.2 Salary of UCS healthcare providers	42,307.23	44,840.54	47,314.96	49,832.58	52,143.98
2. HIV/AIDS patients health service package	3,122.41	3,218.25	3,046.32	3,343.54	3,676.35
3. Chronic renal failure patients' health service package	7,650.71	8,165.61	8,281.80	9,375.41	9,720.28
4. Chronic disease control, DM-HT patients, psychiatric patients in the community	960.41	1,080.70	1,135.03	1,135.03	1,163.21
5. Additional Budget to improve efficiency in remote/hardship areas/Southern border areas	1,490.29	1,490.29	1,490.29	1,490.29	1,490.29
6. Long Term Care for dependent elderly	900.00	1,159.20	916.80	975.69	838.03

Unit: million baht

Medical services categories	2017	2018	2019	2020	2021
7. Additional Budget to services of primary care clusters (PCC)	-	240.00	268.64	268.64	421.64
8. MMR Vaccine compensation (2018-2019)	-	-	-	27.01	-
Total	**169,752.42**	**175,559.80**	**181,584.09**	**190,366.00**	**194,508.79**
UCS Budget exclude salary of healthcare providers	**127,445.19**	**130,719.26**	**134,269.13**	**140,533.42**	**142,364.81**
Medical Services per capita	**3,188.92**	**3,283.11**	**3,426.56**	**3,600.00**	**3,719.23**

Source: National Health Security Commission Guidelines for the implementation and management of the National Health Security Fund, Fiscal Year 2017-2021

Table 2-6 Number of UCS Budget per capita classified by Type of medical services in the Fiscal Year 2017-2021

Unit: baht/person

Type of medical services	2017	2018	2019	2020	2021
1. Outpatient services	1,137.58	1,167.41	1,179.34	1,251.68	1,280.01
2. Inpatient services	1,159.59	1,199.72	1,294.94	1,371.07	1,440.03
3. Specialize care, High-cost services	325.01	337.08	357.50	359.24	372.97
4. Health Promotion and Disease Prevention for all scheme	405.29	415.55	431.43	452.60	455.39
5. Rehabilitation Medical services	16.13	16.13	16.13	17.43	18.40
6. Thai Traditional Medicines	11.61	11.61	11.61	14.80	17.90
7. Depreciation cost for building and medical investment	128.69	128.69	128.69	128.69	128.69
8. Compensation Budget to Consumers and Providers who lose from received/provided health services	5.02	4.92	4.92	2.49	3.84
9. Additional budget for quality of care	-	2.00	2.00	2.00	2.00
Total	**3,188.92**	**3,283.11**	**3,426.56**	**3,600.00**	**3,719.23**

Source: National Health Security Commission Guidelines for the implementation and management of the National Health Security Fund, Fiscal Year 2017-2021

Note: The 4th service type covers all Thai citizens

Disbursement of UCS Budget

In the FY 2021, the disbursement including obligation of the UCS service units from the National Health Security Fund was 144,252.95 million baht, or 101.33 percent (total budget of 142,364.82 million baht excluding public sector's personnel salaries) (Figure 2-10)

Figure 2-10 UCS Budget disbursement in the Fiscal Year 2021

Detail of UCS Budget	UCS Budget MB	Disbursement include obligation MB	Balance MB	% of Disbursement include obligation
Medical Services capitation	125,055.02	123,616.39	1,438.63	98.85
HIV/AIDS patients	3,676.35	4,735.74	-1,059.39	128.82
Chronic renal Failure patients	9,720.28	11,884.03	-2,163.75	122.26
Chronic disease patients	1,163.21	1,131.60	31.61	97.28
Budget for Risk & remote area	1,490.29	1,490.29	0.00	100.00
LTC for Dependency persons	838.03	1,117.70	-279.68	133.37
Primary Care Cluster: PCC services	421.64	277.20	144.44	65.74
Total	142,364.82	144,252.95	-1,888.14	101.33

Source: 1. *National Health Security Commission Guidelines for the implementation and management of the National Health Security Fund in the Fiscal Year 2021*
2. *Financial Report of UCS Budget in the Fiscal Year 2021, NHSO, Data as of November 30th, 2021*

Notes: 1. *Medical Services Capitation budget of 177,198.99 million baht includes UC service providers' salary of 52,143.98 million baht*
2. *Exclusive of COVID-19 Governmental Loans Act, rounds 1-4, for the FY 2021 to manage the COVID-19 pandemic and other related service sat 30,348.35 million baht*
3. *Expenses over budget allocated of 1,888.14 million baht was approved from the high (low) income account*
4. *For the FY 2020-2021 (March 1st , 2020 – September 30th , 2021), 33,650.436 million baht was allocated for COVID-19 management as follows: 1. The FY 2020 was allocated a central budget for emergency payouts, or necessary payments regarding Corona Virus 2019 (COVID-19), of 2,282.088 million baht, 2. The NHSO committee had approved 1,020 million baht from the high (low) income account, and 3. The FY 2021 had been assigned a total of 30,348.348 million baht from the COVID-19 Governmental Loans Act, Rounds 1-4; the NHSO had reimbursed the providers a total of 54,479.670 million baht with 20,829.234 million baht remaining (the NHSO was approved additional funds from the Governmental Loans Act, Round 4, to reimburse the service providers November 16th, 2021).*

5 Targets and Outputs according to the budget allocated

The targets and outputs of medical services and public healthcare for UCS beneficiaries as per the budget allocated in the 2021 fiscal year are detailed in Table 2-7 and Appendix Table 5-5

Table 2–7 Targets and Outputs according to the budget allocated categorized by service items in the Fiscal Year 2021

Service items: unit source (note)	Targets	Outputs	% of outputs to targets
1. Services under medical capitation			
1.1 Targeted Population			
- Registered UHC Population: persons [1]	66,114,000	66,562,337	100.68
- Registered UC Scheme Population: persons [1]	47,644,000	47,555,113	99.81
1.2 Out-patients Services			
- OP Visit: visits [2]	174,299,104	161,711,964 (1)	92.78
- Utilization Rate: visits/person/year	3.658	3.437	93.96

Service items: unit source (note)	Targets	Outputs	% of outputs to targets
1.3 In-patients Services			
- IP Admission: admissions [2]	6,644,553	5,754,638 (1)	86.61
- Utilization Rate: admissions/person/year	0.139	0.122	87.77
- Diagnosis for CA colon; Colonoscopy, Colonoscopy with biopsy of colon, Colonoscopy with polypectomy: visits [3]		58,498 visits, (2) 48,014 individuals	
- Home Chemotherapy for CA colon patients: visits [3]		595 visits 93 individuals	
- One day surgery; ODS: visits [4]		22,654 visits 13,108 individuals	
- Minimally Invasive Surgery; MIS: visits [4]		8,556 visits 8,221 individuals	
- Extracorporeal Shock Wave Lithotripsy in urolithiasis patients: visits [5]		17,229 visits 10,255 individuals	
1.4 Specialized Care/High-cost Services			
1.4.1 Accident and Emergency/Referral			
1) Out-patients referral out of registered provinces or Referred to University hospitals within provinces: visits [3]	420,277	338,976 visits	80.66
2) Referred cases with transportation cost: visits	269,818	248,255 visits 220,660 individuals	92.01
1.4.2 Confidence in Quality-of-Care improvement			
1) STEMI Fast Track, Thrombolytic therapy for ST-elevated myocardial infarction patients: persons [5]	4,954	3,644 individuals 3,74 visits	73.56
2) Stroke Fast Track, Thrombolytic therapy for Cerebral infarction patients: persons [5]	7,810	6,808 individuals 6,833 visits	87.17
3) Chemotherapy or Hormones or Radiation treatment in Cancer patients: persons [5]	96,111	83,659 individuals 655,870 visits	87.04
4) PET/CT Scan for Non-Small Cell Lung Cancer and Hodgkin Lymphoma patients: visits [1] (3)		38 visits	
5) Cataract lens replacement Surgery: visits [5]	120,000	93,945 visits (1) 86,565 individuals	78.29
6) Orthodontics and Speech rehabilitation for cleft lip and cleft palate patients: persons [1]	1,493	999 individuals (1) (Ortho 256 / Speech 743)	66.91
7) Health services after hours in cases non-emergency or general illness patients: visits [1]	222,340	222,570 visits 166,095 individuals	100.10
1.4.3 Reducing the financial risk of healthcare units			
1) Instrument and artificial organs in treatment: pieces [4]	2,350,075	3,241,224 items	137.92
2) Hyperbaric Oxygen Therapy: persons [5] (4)	11	18 individuals 20 visits	163.64

Service items: unit source (note)	Targets	Outputs	% of outputs to targets
3) Corneal transplantation, including supply, storage, and treatment: eyes [3]	591	517 eyes	87.48
4) Transplantation			
- Liver transplant and Immunosuppressive drug: persons [1] (5)	358	354 (35 transplants, 319 immunosup-pressa)	98.88
- Heart transplant and Immunosuppressive drug: persons [1] (5)	117	112 (8 transplants 104 immunosup-pressants)	95.73
- Hematopoietic stem cell transplantation (HSCT): persons [1]	110	107 (6) (12 children 95 adults)	97.27
1.4.4 Services required closed monitoring			
1) Methadone Maintenance Therapy (MMT): persons [5] (7)	12,122	8,716 persons 70,129 times	71.90
2) Essential, High-costs medicines and Orphan drugs			
- 27 Essential, High-costs medicines, E(2) of the National List of essential medicine: persons [1] (8)	49,586	52,065 (27,875 new persons, 24,190 old persons)	105.00
- 16 Orphan drugs and Antidotes: persons [1]	7,426	6,276	84.51
1.4.5 Disease Management or Vertical Programs			
1) Blood transfusion and iron-chelating therapy for Transfusion Dependent Thalassemia patients: persons [6]	12,734	12,014 persons (9) 72,977 times	94.35
2) Tuberculosis patients Care: persons [7] (10)	78,043	81,719 persons 319,125 times	104.71
3) Active Case finding of TB in prisoners and household contacts by Chest X-Ray [7] (11)	350,000	291,146 persons (205,274 persons, 85,872 TB patient contact)	83.18
4) Palliative Care: persons [5]	20,135	45,502 persons (12)	225.98
5) Care and treatment for Rare disease patients: persons [3] (13)	354	283 persons 410 times	79.94
1.5 Health Promotion and Disease Prevention Services			
- Influenza Vaccines for targeted population: persons [8]	6,200,000	4,995,582	80.57
- Rotavirus Vaccines for babies 2, 4 and 6 months: persons [5]	545,169	605,184	111.01
1.6 Rehabilitation Services			
1) Registered disables: persons [1]	1,262,148	1,309,552	103.76

Service items: unit source (note)	Targets	Outputs	% of outputs to targets
2) Assisted instrument for disables: persons [5]	33,624	24,842	73.88
3) Rehabilitation services: visits	3,552,509	3,097,918	87.20
- Services for disables: visits [5]		544,430	
- Services for needed elderly: visits [5]		1,235,527	
- Services for needed patients: visits [5]		1,257,357	
- Services for dependency and bedridden patients: visits [5]		2,160	
- Stroke, Traumatic brain injury, Spinal cord injury Patients with intermediate care [3] (14)		58,444	
4) Orientation and Mobility: O&M for Disabled: persons [5]	2,070	376 (1)	18.16
1.7 Thai Traditional Medicine Services			
- Traditional Thai herbal massage: visits [5]	8,635,553	3,911,754 (1)	45.30
- Postpartum care: persons [5]	45,178	60,493	133.90
- Herbal medicine prescriptions of the National List of Essential Medicine: visits [5]	9,260,239	9,089,167	98.15
- Acupuncture for new post-Strokes: persons [3] (15)	19,150	2,055 persons,(1) 12,177 times	10.73
1.8 Liability compensation for patients and healthcare providers			
- Liability compensation for patient: persons [9]	1,022	845	82.68
- Liability compensation for healthcare providers: persons [9]	487	677	139.01
2. Services for specialized groups			
2.1 Antiretroviral Therapy for HIV/AIDS patients: persons [10]	271,704	289,116	106.41
2.2 HIV/AIDS prevention for at-risk population: persons [11]	72,500	80,382	110.87
2.3 Renal Replacement Therapy for Chronic renal failure: persons [12]	63,815	69,208	108.45
- Continuous Ambulatory Peritoneal Dialysis: CAPD	31,790	34,027	107.04
- Automated Peritoneal Dialysis: APD	100	182	182.00
- Hemodialysis: HD	22,949	24,847	108.27
- Hemodialysis with patient's self-pay: HD self-pay	6,569	7,449	113.40
- Kidney Transplantation: KT	224	110	49.11
- Kidney Transplantation Immunosuppressive Drug: KTI	2,183	2,593	118.78
2.4 Control, Prevention and Treatment Chronic Illnesses			
- Secondary prevention for diabetic and hypertension patients: persons [5] (16)	3,699,100	4,001,003	108.16
2.5 Community care according to individual care plan for chronic psychiatric patients: persons	12,000	10,341	86.18
2.6 Compensation for remote and hardship areas and Southern border provinces: healthcare units [1]	207	207	100.00
- Remote and hardship areas	163	163	100.00
- Southern border provinces	44	44	100.00

Service items: unit [source (note)]	Targets	Outputs	% of outputs to targets
2.7 Long Term Care according to individual care plan for dependency persons in all schemes: persons [1] (17)	139,671	186,284	133.37
2.8 Services of Primary Health Care by Primary care cluster and new normal services: visits [3]	2,680,000	2,928,676 (18)	109.28

Source: 1. *Fund Management Unit, NHSO, data as of September 30th, 2021*
2. *Bureau of Planning and Budget Administration, NHSO, data as of September 30th, 2021*
3. *Fund Management Unit, NHSO, Analyze by Monitoring and Evaluation Cluster, NHSO, data as September 30th, 2021*
4. *E-Claim Review and Monitoring Web Report, Fund Management Unit, NHSO, data as of September 30th, 2021*
5. *Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021*
6. *Report for National Perinatal Registry Portal System, Primary Care Commissioning Cluster, NHSO, data as of September 30th, 2021*
7. *TB Web Report, Fund Management Unit, NHSO, data as of September 30th, 2021*
8. *NHSO Influenza Vaccination Summary, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021*
9. *People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th, 2021*
10. *National AIDS Program, Fund Management Unit, NHSO, data as of September 30th, 2021*
11. *National AIDS Program Plus, Fund Management Unit, NHSO, data as of September 30th, 2021*
12. *Chronic Kidney Disease: CKD Reports, Fund Management Unit, NHSO, data as of September 30th, 2021*

Notes
1. *Performance was lower than target due to COVID-19 crisis as the NHSO, MoPH and service providers encouraging Social Distancing including the New Normal lifestyle had provided services out of service units and instead in communities to prevent congestion in the service units.*
2. *A total of 581,588 screenings were done for colon cancer and 58,498 colon cancer tests were conducted on 48,014 individuals of which the methodologies used were 1. 35,966 colonoscopies/ 32,712 individuals, 2. 9,538 colonoscopies with biopsy / 8,737 individuals, and 3. 12,994 colonoscopies with polypectomy/ 9,512 individuals.*
3. *The newly added benefit of non-small cell lung cancer stage evaluation including early-stage monitoring and evaluation of response during and after chemotherapy for Hodgkin's Lymphoma patients.*
4. *Compensatory surgical costs for organ donors and recipients (from pre-operation, operation and post-operation) and covers costs of immunosuppressants for post-transplantation surgery*
5. *Three Hematopoietic stem cell transplantation (HSCT) procedures for 107 individuals in FY 2021 are:*
   1) *22 cases of allogeneic patients matched to related donor (allogeneic MRD), who are siblings with matching Human Leukocyte Antigen (HLA-matching) with the patient.*
   2) *8 cases of allogeneic MUD (match unrelated donor) referring to Stem cell transplantation from non-siblings but HLA-matching*
   3) *77 cases of autologous referring to Auto stem cell transplantation*
6. *Cost of Methadone as rehabilitation treatment for opioid addicts*
7. *The newly added benefit in 2021 of Essential Medication E (2) Sofosbuvir 400 mg + Velpatasvir 100 mg as a Direct Acting Antiretrovirals (HCV DAAs) group for all Hep. C strains*
8. *Severe Thalassemic patients had received blood transplantation and/or continuous iron chelation: 12,014 individuals had received 72,977 blood transfusions, 9,102 received 52,298 medication and 1,971 had received Deferasirox 11,189 times*
9. *Coverage for Tuberculosis patients' including drugs, screening for at-risk groups and activities to promote continuous ingestion of medicines*
10. *Findings of active cases TB patients among high-risk group (prisoner and TB contacted person) by Chest X-ray in FY 2021*
11. *Capitation payment for the period of care to vocational team, with families and other networks to care for dependent elderly (bedridden elderly)*
12. *Care for the 24 Rare Diseases – inherited small molecules metabolic disorders*

13. *The newly added benefit of Intermediate care (IMC) for stroke, traumatic brain injury, and spinal cord injury in- and out-patients through rehabilitation, physical therapy, therapeutic activities and speech practice, after critical and upon symptoms being stable, for no longer than 6 months*
14. *The newly added benefit of Intermediate care (IMC) for new stroke patients through acupuncture, or electrical acupuncture, after critical and upon symptoms being stable, for no longer than 6 months*
15. *Screening for Diabetic patients for levels of Hb Microalbuminuria, Micro albuminuria, retina and detailed annual examination of the foot while hypertensive patients received tests for Fasting Plasma Glucose, lipid profile and urinalysis, at a minimum of once a year*
16. *Service sets for dependent elderly (bedridden elderly), who has been evaluated according to the Barthel ADL in regards to daily life performances, receiving 11 or more than 11 points as conducted by family doctors and LAOs*
17. *Performances exceeded target due to the COVID-19 crisis as the NHSO, MoPH and service providers encouraging Social Distancing including the New Normal lifestyle had provided services out of service units and instead in communities to prevent congestion in the service units; the services consisted of community pharmacies (pharmacies near home), drugs/utilities deliveries to patients at home, telehealth/telemedicine, out-pf-laboratory tests (blood tests near home), nursing and midwifery, and physical therapy at home or communities*

6 Results of Universal Coverage Scheme

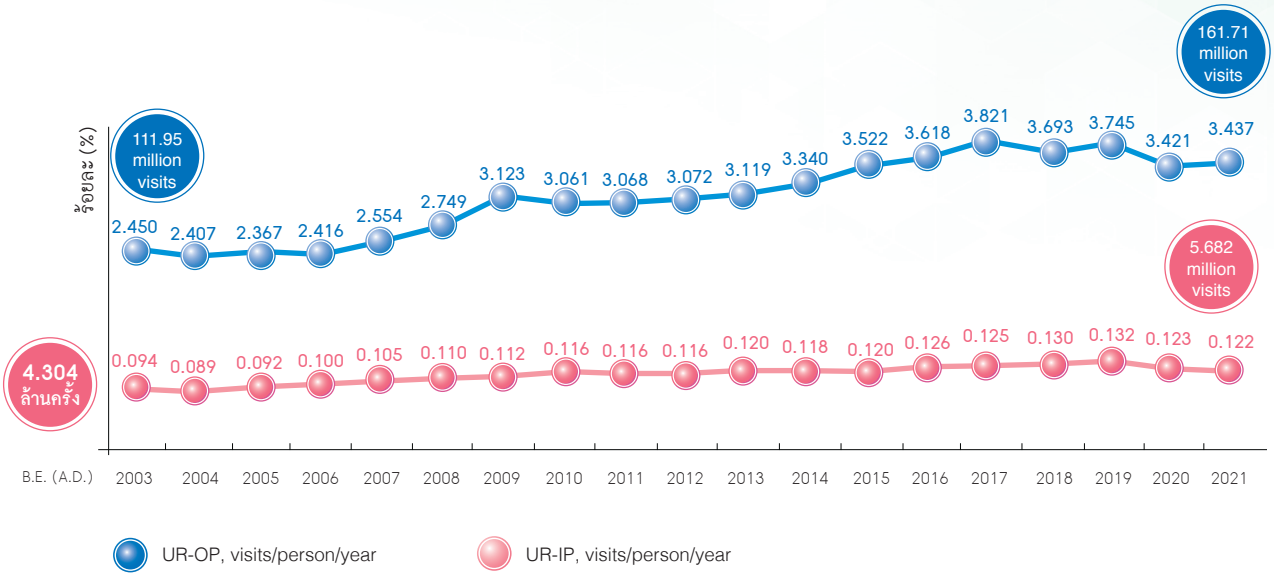
6.1 Health Service Utilization under medical capitation

6.1.0 Outpatient and Inpatient Services

The outpatient visits had increased from 111.95 million visits in 2003 to 161.71 million visits in 2021 fiscal year or tabulated as 3.437 visits per person per year, which is an increase from 2.450 visits per person per year in 2003.

Similarly, in-patient's utilization increased from 4.304 million admissions in 2003 to 5.682 million admissions in 2021 while the rate increased from 0.094 admissions per individual per year in 2003 to 0.121 admissions per individual per year (Figure 2-11) (Table 2-8).

Figure 2-11 Number of Visits and Utilization rate of Outpatients and Inpatients under the UC scheme in the Fiscal Year 2003-2021



Source: *Data of outpatient and inpatient Services, UC Scheme, Monitoring and Evaluation Cluster, NHSO. Data as of September 30th, 2021, Analyze by Policy Advocacy Unit, NHSO. By 1) Data for OP services, from OP 43 files, analyze on November 22rd, 2021, and 2) Data for IP services from IP E-claim, analyze on December 6th, 2021*

Notes: 1. *UCS out-patient service utilization rate* = $\frac{\text{Reported year's total visit of UCS out-patients}}{\text{Average number of UCS citizens in the 12 months of reported year}}$

2. *UCS in-patient service utilization rate* = $\frac{\text{Reported year's total admissions of UCS in-patients}}{\text{Average number of UCS citizens in the 12 months of reported year}}$

Table 2-8 Number of Visits and Utilization rate of Outpatients and Inpatients under Universal Coverage Scheme in the Year 2003-2021

Fiscal Year	OP Services (visits)	UR-OP (visits/person/year)	IP Services (visits)	UR-IP (visits/person/year)	UC Population (persons)
2003	111,947,496	2.450	4,304,010	0.094	45,691,203
2004	112,494,014	2.407	4,162,644	0.089	46,732,232
2005	111,642,613	2.367	4,337,518	0.092	47,163,799
2006	114,765,934	2.416	4,729,443	0.100	47,508,791
2007	119,294,050	2.554	4,883,736	0.105	46,713,341
2008	128,758,863	2.749	5,168,685	0.110	46,837,374
2009	147,602,998	3.123	5,292,133	0.112	47,264,407
2010	146,020,982	3.061	5,551,084	0.116	47,710,902
2011	146,302,145	3.068	5,529,990	0.116	47,685,565
2012	148,807,629	3.072	5,620,440	0.116	48,441,999
2013	151,864,201	3.119	5,822,403	0.120	48,682,727
2014	161,716,305	3.340	5,735,874	0.118	48,411,833

Fiscal Year	OP Services (visits)	UR-OP (visits/ person/year)	IP Services (visits)	UR-IP (visits/person/year)	UC Population (persons)
2015	170,341,833	3.522	5,779,678	0.120	48,362,555
2016	174,627,554	3.618	6,063,473	0.126	48,268,385
2017	184,280,767	3.821	6,033,371	0.125	48,226,078
2018	177,274,523	3.693	6,218,540	0.130	48,004,070
2019	178,447,406	3.745	6,299,512	0.132	47,649,465
2020	162,565,329 3	3.421 3	5,853,006	0.123	47,521,215
2021	161,711,964 4	3.437 4	5,754,638	0.122	47,048,213

Source: Data of outpatient and inpatient Services, UC Scheme, Monitoring and Evaluation Cluster, NHSO. Data as of September 30th , 2021, Analyze by Policy Advocacy Unit, NHSO. By 1) Data for OP services, from OP 43 files, analyze on November 22nd , 2021, and 2) Data for IP services from IP E-claim, analyze on December 6th , 2021

Notes: 1. *UCS out-patient service utilization rate* = $\frac{\text{Reported year's total visit of UCS out-patients}}{\text{Average number of UCS citizens in the 12 months of reported year}}$

2. *UCS in-patient service utilization rate* = $\frac{\text{Reported year's total admissions of UCS in-patients}}{\text{Average number of UCS citizens in the 12 months of reported year}}$

3. *FY 2020 was recalculated using the full year's database and analyzed on September 8th, 2021*

4. *Performances lower than target due to the COVID-19 crisis as the NHSO, MoPH and service providers encouraging Social Distancing including the New Normal lifestyle had provided services out of service units and instead in communities to prevent congestion in the service units; the services consisted of community pharmacies (pharmacies near home), drugs/utilities deliveries to patients at home, telehealth/telemedicine, out-of-laboratory tests (blood tests near home), nursing and midwifery, and physical therapy at home or communities*

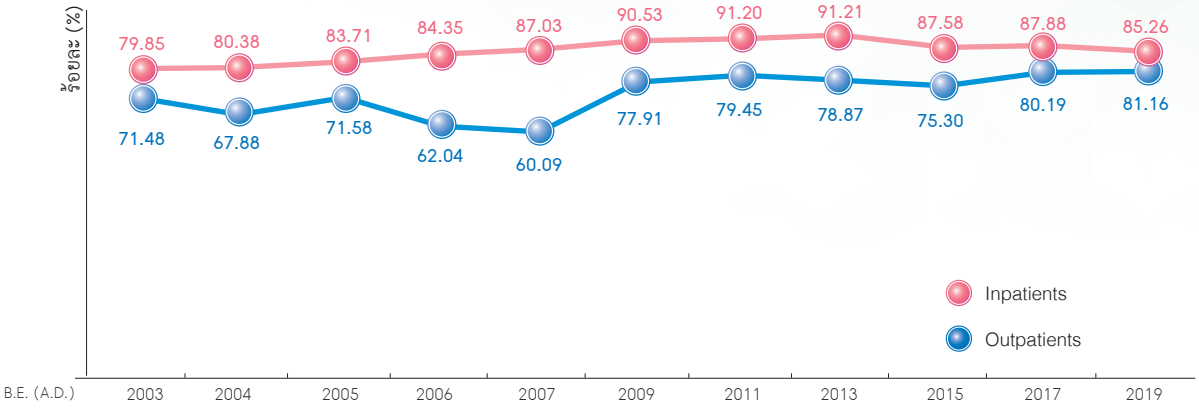
Compliance Rate

Citing from Health and Welfare Survey 2019 report of the National Statistical Office focusing on healthcare behavior of UCS beneficiaries, it has been discovered that 58.33% of out-patients elicited health services from a public hospital, 12.94% had elicited services from a private healthcare setting while 28.57% had taken care of themselves; additionally, 88.60% in-patients elicited healthcare from public settings and 11.40% elicited services from private healthcare setting (Table 2-9).

In regards to the Compliance Rate of eliciting health services from service units in 2019, it has been found that 81.16% were **out-patients** while 85.26% were **in-patients** (Figure 2-12).

However, the main reasons for not exercising the rights to UCS by out-patients were long-waiting time followed by inconvenience to visit during business hours and finally, low confidence in drugs quality; simultaneously, for **in-patient services**, the causes were long waiting time followed by benefits not covered by the benefit scheme, and accident and emergency (Table 2-10).

Figure 2–12 Compliance Rate of Outpatients services and Inpatients services under the UC scheme in the Year 2003–2019



Source: *Health and Welfare Survey in the Year 2003-2019, National Statistical Office, as analyzed by Dr. Supon Limwattanonta*

Notes: *1. As of 2007, the National Statistical Office has conducted the Health and Welfare Survey every two years.*

2. Out-patients: calculated based on respondents having had illness one month prior to the survey and in-patients: calculated based on respondents having had illness one year prior to the survey and had utilized the National Health Insurance at point of health services

Table 2–9 Percentage of reasons for not applying for UCS Benefit when accessing Healthcare units of OP services, IP services, and PP services in the Years 2017 and 2019

Unit: Percentage

Reasons for not applying for UCS Benefit	2017			2019		
	OP	IP	PP	OP	IP	PP
1. Long waiting time	41.87	34.80	29.62	44.49	25.04	41.64
2. Benefit package not covered services	4.79	12.46	28.39	7.45	17.65	29.48
3. Accident-Emergency	1.93	20.08	-	1.97	17.44	-
4. Received services outside the registered area	2.49	5.37	6.26	2.60	9.06	4.99
5. Too far/Inconvenience to travel	3.98	4.65	5.82	5.27	6.70	3.65
6. Inaccurate diagnosis/untreatable	7.44	7.98	4.31	6.06	5.69	2.51
7. Low confidence in the quality of drugs	9.59	4.46	7.89	9.64	2.66	5.50
8. Inconvenience to visit during working Time	14.41	-	9.49	10.48	-	5.71
9. Mild illness	10.47	-	-	8.63	-	-
10. Impolite Healthcare providers	0.45	1.07	-	0.77	0.54	0.91
11. Discriminated against	0.81	-	0.86	-	1.73	2.90
12. No travel expenses	-	-	-	0.04	-	0.04
13. Others	1.78	9.13	7.35	2.60	13.49	2.67
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: *Health and Welfare Survey in the Year 2017 and 2019, National Statistical Office, as analyzed by Bureau of Health Information and Outcome Evaluation, NHSO*

Notes: *Calculated from patients citing reasons for not using UCS services*

Table 2-10 Percentage of Health care-seeking behavior of Outpatients services, Inpatients services, and Promotion and Prevention services under the UC scheme in the Years 2017 and 2019

Unit: Percentage

Seeking behavior	2017			2019		
	OP	IP	PP	OP	IP	PP
1. No treatment	6.19	-	-	7.95	-	-
2. Drug stores, Modern medicine	21.59	-	0.19	20.19	-	-
3. Thai Traditional Doctor	0.30	-	-	0.10	-	-
4. Traditional medicine	0.74	-	-	0.33	-	-
5. Sub-District hospitals	19.25	-	32.85	21.40	-	36.97
6. Community/District hospitals	16.15	33.61	13.83	13.83	30.03	13.42
7. Regional hospitals /Provincial hospitals	16.15	43.37	9.80	18.26	49.13	10.01
8. non-MOPH hospitals	4.72	9.55	2.77	4.51	8.41	1.64
9. Medical schools	0.81	4.07	0.75	0.33	1.04	0.23
10. Private clinics	10.24	-	3.19	9.46	-	2.26
11. Private hospitals	3.53	9.37	3.07	3.48	11.40	2.99
12. Mobile units care			32.30			30.22
13. Others	-	0.03	1.24	0.17	-	2.26
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Health and Welfare Survey in the Year 2017 and 2019, National Statistical Office, as analyzed by Bureau of Health Information and Outcome Evaluation, NHSO

Notes: 1. Out-patients: calculated based on respondents having had illness one month prior to the survey.
2. In-patients: calculated based on respondents having had illness one year prior to the survey.
3. Health Promotion and Disease Prevention: calculated based on respondents having received health promotion 12 months prior to survey

6.1.1 Outpatient Services

Ranking/Disease Groups presented by UC Outpatients as tabulated from the number of outpatients visits according to the Principal Diagnosis (PDx) exclusive of health services as per the ICD-10 code Z and Thai medicine, the 2021 fiscal year shows a total of 87.715 million outpatient visits, or 54.24 percent, of the total 161.711 million visits for treatment of the top 20 diseases. The top 3 visits were made for Essential Primary Hypertension (I10) at 25.470 million visits, non-insulin-dependent diabetes mellitus (E11) at 13.838 million visits and Disorders of lipoprotein metabolism and other lipidaemia (E78) at 11.237 million visits (Table 2-11).

Table 2-11 Top 20 Diseases of UCS outpatient visits in the Fiscal Year 2021

No.	ICD10: principal Dx	OP-visit (visits)
1	I10: Essential (primary) hypertension	25,469,919
2	E11: Non-insulin-dependent diabetes mellitus	13,837,927
3	E78: Disorders of lipoprotein metabolism and other lipidaemias	11,236,674
4	N18: Chronic renal failure	5,467,592
5	J00: Acute nasopharyngitis [common cold]	5,130,524
6	M79: Other soft tissue disorders, not elsewhere classified	4,158,215
7	K30: Dyspepsia	3,212,344
8	M62: Other disorders of muscle	2,728,276
9	K02: Dental caries	2,721,998
10	R42: Dizziness and giddiness	2,204,923
11	K05: Gingivitis and periodontal diseases	1,498,664
12	R73: Elevated blood glucose level	1,333,023
13	K04: Diseases of pulp and periapical tissues	1,321,107
14	F20: Schizophrenia	1,150,602
15	M54: Dorsalgia	1,118,566
16	M17: Gonarthrosis [arthrosis of knee]	1,076,068
17	M10: Gout	1,071,157
18	J45: Asthma	1,015,085
19	I25: Chronic ischaemic heart disease	992,791
20	B24: Unspecified human immunodeficiency virus [HIV] disease	969,865
Top 20 Diseases		**87,715,320**
Total		**161,711,964**

Source: Data for OP services, from OP 43 files, Data as of September 30th, 2021, as analyzed by Monitoring and Evaluation Cluster, NHSO, on January 4th, 2022

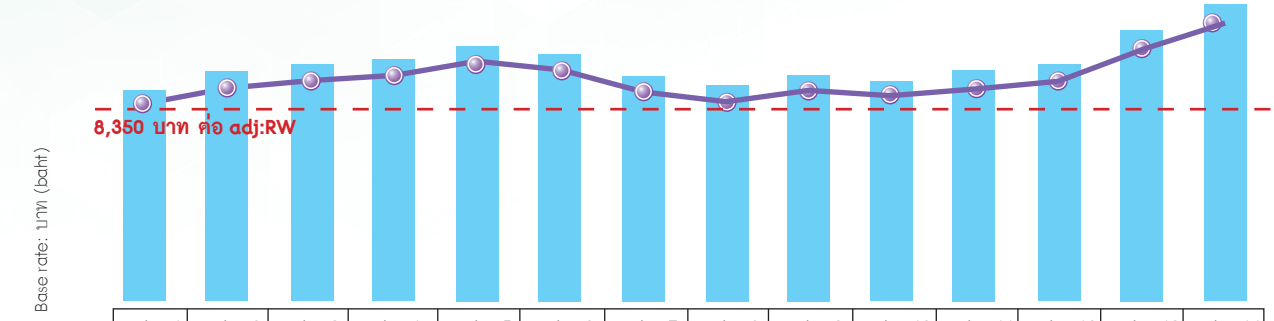
Notes: 1. Calculated from number of outpatient visits by Principal Diagnosis (PDx) excluding ICD-10: Z00-Z99 and U50-U77

2. Identified diagnosis/disease according to ICD-10-TM, refer to public health statistic, Ministry of Public Health.

6.1.2 Inpatient Services

The fiscal year of 2021 has seen the NHSO allocating additional funds for inpatients health services at a base rate of 8,350 baht per Adjusted Relative Weight (adj.RW) as per the conditions as stipulated by the subcommittee responsible for establishing operating rules and fund management under the UHC committee's direction in regards to instances where there are leftover funds. The leftover funds will be disbursed by the NHSO to health units according to the health services provided and it has been reported that the nation-wide's adj.RW was at 10,662 baht, which 127.69 percent higher than the nominal payout (Figure 2-13).

Figure 2-13 Base rate per Adjust Relative weight within Health region compare with minimum base rate 8,350 baht per adj.RW in the Fiscal Year 2021



	region 1	region 2	region 3	region 4	region 5	region 6	region 7	region 8	region 9	region 10	region 11	region 12	region 13	region 14
Base rate:	9,731	10,565	10,853	11,129	11,722	11,330	10,359	9,894	10,436	10,167	10,634	10,936	12,481	13,714
(%)	116.54	126.52	129.98	133.28	140.39	135.69	124.06	118.49	124.98	121.76	127.36	130.97	149.48	164.24

Source: Fund Management Unit, NHSO, as of September 30th , 2021

Ranking/Disease Groups presented by UC Inpatients are Z29: Need for other prophylactic measures, J12: Viral pneumonia, not elsewhere classified, Z38: Liveborn infants according to place of birth, A09: Diarrhea and gastroenteritis of presumed infectious origin, and J18: Pneumonia, organism unspecified, respectively. Nevertheless, the first two conditions were because of COVID-19 but the condition could not be registered as Principal Diagnosis (PDx) using ICD-10 COVID-19; it has been found that SDx-ICD10: U07.1 was COVID-19 positive for all cases of the first condition while 212,432 of 228,227 individuals tested positive from the aforementioned viral pneumonia (Table 2-12).

Table 2-12 Top 20 Diseases of UCS inpatient admissions classified by gender and age groups in the Fiscal Year 2021

No.	ICD10: principal Dx	IP-visit (visits)	Male	Female
1	Z29: Need for other prophylactic measures	267,985	142,032	125,953
2	J12: Viral pneumonia, not elsewhere classified	228,227	105,228	122,999
3	Z38: Liveborn infants according to place of birth	224,655	111,864	112,791
4	A09: Diarrhea and gastroenteritis of presumed infectious origin	192,191	85,847	106,344
5	J18: Pneumonia, organism unspecified	145,304	80,939	64,365
6	N18: Chronic renal failure	121,403	51,225	70,178
7	O80: Single spontaneous delivery	108,149	0	108,149
8	I50: Heart failure	107,602	49,243	58,359
9	D56: Thalassemia	102,519	46,005	56,514
10	H25: Senile cataract	97,614	41,805	55,809
11	I63: Cerebral infarction	97,072	52,902	44,170
12	E11: Non-insulin-dependent diabetes mellitus	93,083	38,291	54,792
13	J44: Other chronic obstructive pulmonary disease	92,302	73,616	18,686
14	N39: Other disorders of urinary system	83,607	31,715	51,892

No.	ICD10: principal Dx	IP-visit (visits)	Male	Female
15	J20: Acute bronchitis	68,240	36,819	31,421
16	P59: Neonatal jaundice from other and unspecified causes	68,185	35,987	32,198
17	K35: Acute appendicitis	62,625	30,507	32,118
18	S06: Intracranial injury	60,152	40,679	19,473
19	J02: Acute pharyngitis	59,866	31,030	28,836
20	I21: Acute myocardial infarction	57,045	33,783	23,262
Top 20 Diseases		**2,337,826**	**1,119,517**	**1,218,309**
Total		**5,754,631**	**2,814,088**	**2,940,543**

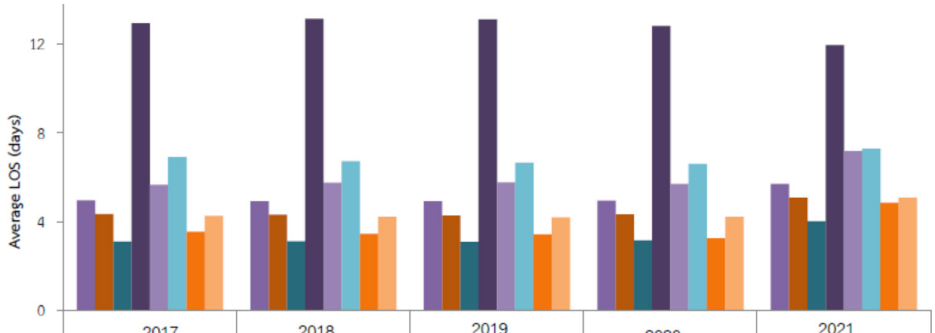
Source: Data IP services from IP E-claim, Data as of September 30th, 2021, as analyzed by Monitoring and Evaluation Cluster, NHSO, January 4th, 2022

Note: 1. Calculated from inpatient admissions by Principal Diagnosis (PDx)

2. Identified diagnosis/disease according to ICD-10-TM, refer to public health statistic, Ministry of Public Health.

Length of stay is an indicator of a health unit's management as it reflects hospitals'' bed turnover rate and quality of care. The Average Length of Stay (LOS) for 2017-2019 was rather stable but the highest was seen in MoPH affiliated hospitals. However, in 2021, there was marked increase in LOS specifically in non-MoPH hospitals and private hospitals whereas the MoPH affiliated hospitals had a decrease in LOS (Figure 2-14).

Figure 2–14 Average length of stay classified by level of healthcare units and hospital type in the Fiscal Year 2017-2021



	2017	2018	2019	2020	2021
Regional hospital (34)	4.95	4.90	4.90	4.93	5.68
Provincial hospital (85)	4.32	4.30	4.26	4.31	5.07
District hospital (764)	3.08	3.10	3.07	3.14	4.01
MoPH hospital (56)	12.93	13.11	13.10	12.80	11.94
non-MoPH hospital (84)	5.65	5.74	5.76	5.69	7.17
Medical school (16)	6.90	6.71	6.64	6.59	7.26
Private hospital (60)	3.53	3.44	3.41	3.23	4.84
Total (1,099)	4.24	4.21	4.17	4.21	5.07

Source: Data IP services from IP E-claim, Data as of September 30th, 2021. Analyzed by Monitoring and Evaluation Cluster, NHSO, as of December 28th, 2021

Notes: 1. The Average Length of Stay was inclusive of in-patients staying for more than 6 hours in the hospital

2. Included well baby delivered at hospital (code Z380)

3. Data analysis was based on hospital level in the FY 2019 and through retrospective data processing

While the appropriateness of inpatients' admissions by services units were measured in Proportion to sum of admissions as per the Relative Weight (RW) of different levels of healthcare units and hospital types of which admissions with <0.5 RW was found in community hospitals being the highest followed by private hospitals and general hospitals at 48.31 percent, 33.75 percent and 32.87 percent, respectively. As for proportion of LOS with >=3 RW was in medical schools followed by regional hospitals and non-MoPH hospitals at 44.93percent, 35.05 percent, and 28.20 percent (Figure 2-15).

Figure 2-15 Proportion of sum of admission and sum of Length of Stay classified by Range of RW and level of healthcare units / hospital type in the Fiscal Year 2021

Source: *Data IP services from IP E-claim, Data as of September 30th, 2021. Analyzed by Monitoring and Evaluation Cluster, NHSO, as of December 28th, 2021*

Notes: *1. Included well baby delivered at hospital (code Z380)*

2. Data analysis was based on hospital level in the FY 2019 and through retrospective data processing

Upon consideration of financial resources usage catering to inpatients services of various hospitals and service units, the focus is on medical compensation based on the Sum of Adj. RW of which the heist was found in district hospitals' UC inpatients' services followed by provincial hospitals and regional hospitals at 42.95 percent, 23.67 percent and 22.48 percent, respectively. While the proportion of medical resources utilized for treatment as reflected by the Sum of Adj.RW adjusted was the greatest at regional hospitals at 33.82 percent, general hospitals at 25.45 percent, and district hospitals at 23.78 percent (Table 2-13; source: Fund Management Unit, NHSO, as of September 30th , 2021).

Table 2-13 Number of Admission, Sum of Adj. RW, and CMI-Adj. RW classified by level of healthcare units / hospital type in the Fiscal Year 2021

Hospital type	Units	IP-visit (visits)	%	Sum Adj.RW	%	CMI
Regional Hospital	34	1,241,635	22.48	2,517,611	33.82	2.03
Provincial Hospital	85	1,307,172	23.67	1,894,853	25.45	1.45
District Hospital	764	2,372,406	42.95	1,770,337	23.78	0.75
MoPH Hospital	56	142,044	2.57	289,711	3.89	2.04
Non-MoPH Hospital	84	169,723	3.07	284,704	3.82	1.68
Medical schools	16	182,815	3.31	468,698	6.30	2.56
Private Hospital	60	107,370	1.94	218,652	2.94	2.04
Total	**1,099**	**5,531,731**	**100.00**	**7,449,848**	**100.00**	**1.35**

Source: Data IP services from IP E-claim, data as of September 2021. Analyzed by Monitoring and Evaluation Cluster, NHSO, as of December 28th, 2021

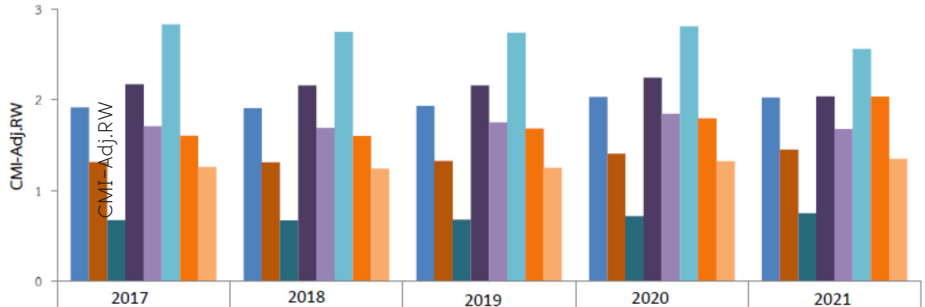
Notes: 1. Included well baby delivered at hospital (code Z380)

2. Data analysis was based on hospital level in the FY 2019 and through retrospective data processing

The index reflecting the efficiency and health services performances provided by each service level and affiliation is the **Case Mix Index (CMI)**, or Adjusted Relative Weight (Adj.RW) in allotted period of time. The CMI values indicates diversity of patients that is comparable with the CMI of similar healthcare settings to evaluate a hospital facility and improvements to be made to healthcare facility as per the required standard.

The CMI index of the MoPH had set the CMI value of each unit to be no less than 1.6 for regional level (A), 1.2 for large general hospital level (S), 1.0 for small general hospital level (M1),0.8 for community hospital network level (M2), and 0.6 for community hospital level. The fiscal 2021 year has seen a constant performance with a tendency of betterment in CMI for all USC services except for MoPH affiliated hospitals, non-MoPH hospitals and medical schools when compared to 2020 (Figure 2-16).

Figure 2–16 Case Mix Index Adjusted Relative Weight classified by level of healthcare units/ hospital type in the Fiscal Year 2017-2021



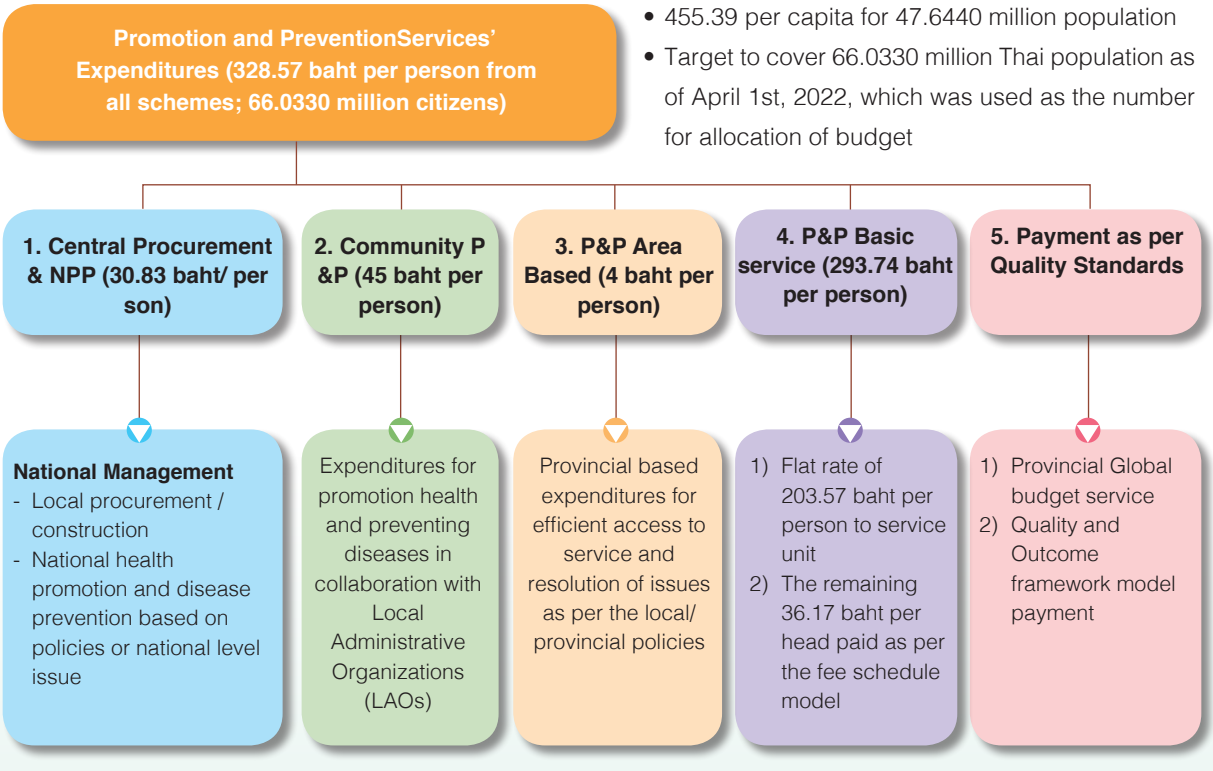
	2017	2018	2019	2020	2021
Regional Hospital (34)	1.92	1.91	1.93	2.03	2.03
Provincial Hospital (85)	1.31	1.31	1.33	1.41	1.45
District Hospital (764)	0.67	0.67	0.68	0.71	0.75
MoPH Hospital (56)	2.17	2.16	2.16	2.25	2.04
Non-MoPH Hospital (84)	1.71	1.69	1.75	1.85	1.68
Medical School (16)	2.84	2.75	2.74	2.81	2.56
Private Hospital (60)	1.61	1.60	1.68	1.80	2.04
Total (1,099)	1.26	1.24	1.25	1.32	1.35

Source: Data IP services from IP E-claim, data as of September 30th, 2021. Analyzed by Monitoring and Evaluation Cluster, NHSO, as of December 28th, 2021

Notes: 1. Included well baby delivered at hospital (code Z380)
2. Data analysis was based on hospital level in the FY 2019 and through retrospective data processing

6.1.3 Promotion and Prevention Services

Figure 2–17 Budget Promotion and Prevention Services per persons all schemes in the Fiscal Year 2021



1) PP Fee Schedule

Table 2-14 Performances of Health Promotion and Disease prevention disbursement under all schemes classified by Health region in Fiscal Year 2020-2021

Unit: visits

PP Fee Schedule	Fiscal Year 2020			Fiscal Year 2021		
	Targets	Outputs	%	Targets	Outputs	%
1. Antenatal care: ANC	1,860,522	1,760,273	94.61	2,087,554	2,362,483	113.17
2. Dental in pregnancy	211,760	80,531	38.03	150,000	43,660	29.11
3. Thalassemia testing in pregnancy and couple	106,400	93,524	87.90	111,076	85,250	76.75
4. Screening for down syndrome in pregnancy	200,034	154,773	77.37	206,000	523,166	253.96
5. Thyroid Stimulating Hormone test in newborn	622,303	435,985	70.06	613,316	350,805	57.20
6. Semi-permanent contraception in women < 20 years of age	41,636	34,171	82.07	33,340	20,568	61.69
7. Semi-permanent contraception in women >=20 years of age, in cases Induced abortion	24,075	3,465	14.39	15,001	2,959	19.73
8. Induced abortion	23,196	4,924	21.23	12,000	5,294	44.12
9. Screening CA Cervix	2,257,345	1,922,575	85.17	1,609,297	822,301	51.10
10. Dental for Fluoride coating in children 4-12 years of age	2,005,740	3,382,535	168.64	994,400	2,141,569	215.36
11. Dental Sealant in children 6-12 years of age	1,046,110	1,234,668	118.02	3,113,790	488,057	15.67

Source: E-Claim Review and Monitoring Web Report, Fund Management Unit, NHSO, Data as of September 30th, 2021

The Health Promotion and Disease Prevention disbursements performances when compared between 2020 and 2021, it has been learnt that there were quite a few items that had performed poorly in fiscal year such dental care for pregnant women (29.11 percent), dental sealant in children 6-12 years of age (15.67 percent, semipermanent contraception in females under 20 years old (61.69 percent), screening for cervical cancer (51.10 percent). The main factor leading to the subpar performance was the COVID-19 pandemic crisis where most service units had to allocate hospitals' resources for COVID-19 patients and prevent the spread of COVID-19 to patients visiting the facilities, therefore, the health promotion and disease prevention was not a priority (Table 2-14).

2) Participation of Local Administrative Organization

To attain health promotion and disease prevention as stipulated in the National Health Security Act, Article 47, the Local Administrative Organizations (LAOs) contributes to the local National Health Security Fund and Bangkok's National Health Security Fund for beneficiaries to enjoy a coverage of 45

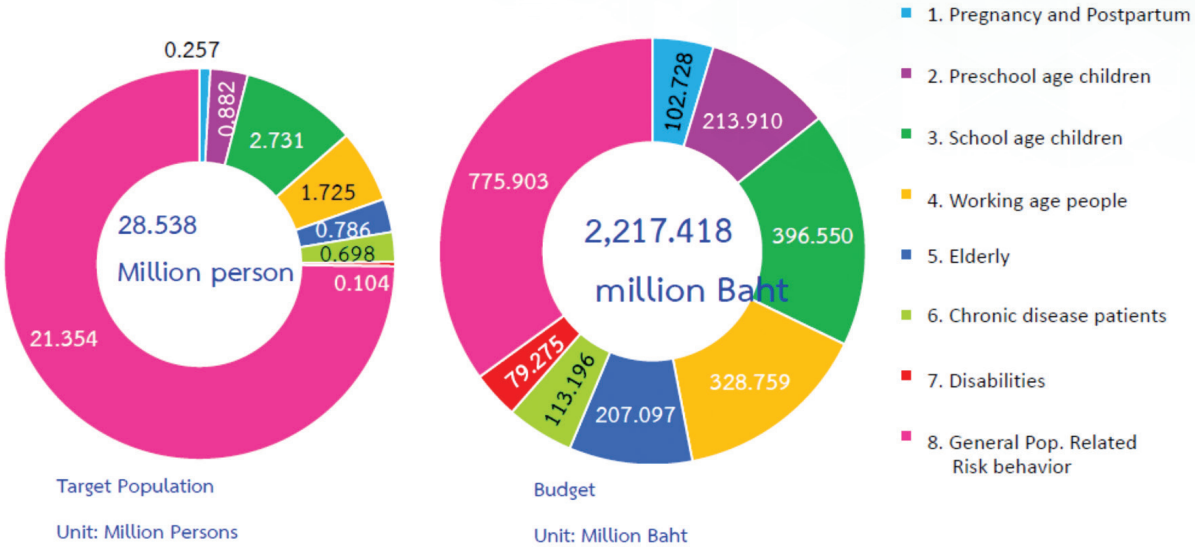
In FY 2020, 7,741 LAOs in Thailand, or 99.58 percent, including sub- district, municipal, city administrations organizations (including Bangkok and Pattaya) contributed 3,589 million baht to the Community Health Fund (CHF) of which the National Health Security Fund contributed 2,311 million baht (64.39 percent) while LAOs gave 1,233 million baht (34.35 percent) and communities including other sources provided a total of 45 million baht (1.25 percent).

There was a 104.7 percent disbursement (for LAOS with higher disbursements than amount received will utilize the balance accumulated from the former year) to the health promotion and prevention for the at-risk population such as school-age children, working-age people, the elderly, disabled, chronic disease patients including to increase teamwork between networks such as the vocational network, public sector and the mass media (Figure 2-18). However, to further increase efficiency and performance, the offices had amended the official announcements of the local National Health Security Find 2018 to increase caregivers in localities including coordinating with the Department of Local Administration, Ministry of Interior, allowing an increase in disbursements (Figure 2-19) and with the COVID-19 pandemic, there was a third amendment to the local National Health Security Fund as on 3rd May, 2020, to provide cashflow to LAOS for managing the crisis (Table 2-15).

In addition, the Provincial Administrative Organizations (PAOs) was encouraged to establish the Provincial Rehabilitation Fund to revitalize respective provinces, LAOs, service units, service areas, MoPH facilities, other facilities including for the disabled group, the elderly or other organizations. The project was test-run in 2009 in Amnart Charoen and Ubol Ratchathani provinces of which the proportions of contributions of NHSO: LAOs was 100:40. The two organizations had cooperatively provided efficient and comprehensive coverage for local citizens. In 2010, the project was expanded to Nongbualumphu province with a proportion of 100:100 as stipulated in the UCS announcement: Criteria for Operation and Management of Nongbualumphu's and other Pilot provinces' Rehabilitation Funds.

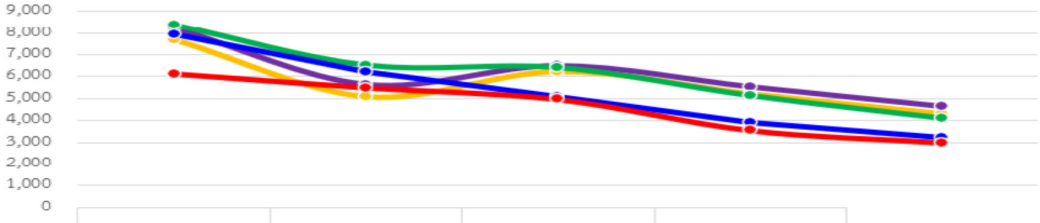
The 2021 fiscal year had improved upon the lessons learnt and issues from all three pilot provinces as evidenced by the collaboration between the PAOs, Ministry of Interior, to assemble a committee overseeing the management criteria of the fund as in the Article 47 and presented to the UCS committee in the 6th meeting in 2021 on 13th June, 2022; the UCS had approved the criteria and an announcement was made on Operation and Rehabilitation of Necessary Provincial Health Fund, 2021. Consequently, there was an amendment made to the 2019's publication: "Universal Coverage Scheme Announcement on Provincial Operational and Rehabilitation Fund 2019" effective on 1st October, 2019. Hence, in 2021, there were a total of 52 PAOs (68.42 percent) that had participated in the rehabilitation fund of 254 million baht: UCS contributed 119 million baht (46.85 percent) while PAOs provisioned 135 million baht (53.15 percent). 89.02 percent of the funds was disbursed for the revitalization of beneficiaries (the disabled, the elderly, rehabilitation patients, subacute patients and dependent patients) to attain a better quality of life.

Figure 2-18 Number of Target groups and Budget implemented health promotion and disease prevention in local sector in the Fiscal Year 2021



Source: Community Care Commissioning Cluster, NHSO, Data as of September 30th, 2021

Figure 2-19 Balance on hand of Local Health Security Fund classified by Quarterly-Yearly in the Fiscal Year 2017-2021



	Budget in Year + Balance	Balance in Q1	Balance in Q2	Balance in Q3	Balance in Data table
2017	7,701.95	5,079.00	6,231.23	5,213.13	4,289.30
2018	8,230.93	5,636.06	6,496.68	5,533.33	4,640.46
2019	8,371.04	6,518.56	6,413.99	5,139.57	4,110.17
2020	7,938.89	6,218.24	5,085.41	3,883.05	3,217.28
2021	6,134.25	5,498.92	4,963.69	3,542.73	2,978.52

Source: Community Care Commissioning Cluster, NHSO, Data as of September 30th, 2021w

Table 2-15 COVID-19 Prevention Projects by Local Health Security Fund in the Fiscal Year 2020-2021

Health Region	Total Local Health Security Fund	Fiscal Year 2020			Fiscal Year 2021		
		Implemented Local Fund	COVID-19 Project	Budget: Million Baht	Implemented Local Fund	COVID-19 Project	Budget: Million Baht
1. Chiang Mai	811	555	2,595	62.726	680	3,987	91.317
2. Phitsanulok	464	317	1,088	46.629	353	1,644	50.742
3. Nakhon Sawan	452	281	869	26.582	323	1,047	36.909
4. Saraburi	647	394	1,157	161.384	401	1,178	161.503
5. Ratchaburi	674	406	1,169	83.547	467	1,630	103.159
6. Rayong	572	410	1,434	144.876	452	1,877	203.143
7. Khon Kaen	718	406	1,486	42.64	558	2,606	69.129
8. Udon Thani	716	461	1,610	60.519	552	2,148	80.669
9. Nakhon Ratchasima	855	588	3,096	87.355	717	4,745	133.834
10. Ubon Ratchathani	658	467	1,895	49.354	545	3,017	67.136
11. Surat Thani	559	475	2,685	153.624	472	2,353	117.818
12. Songkhla	616	521	1,717	99.828	282	766	33.613
Total	**7,742**	**5,281**	**20,802**	**1019.064**	**5,802**	**26,998**	**1148.972**

Source: Community Care Commissioning Cluster, NHSO, Data as of September 30th, 2021

3) Quality and Outcome Frameworks: QOF

QOF is an implementation of the policy to uplift quality of services delivered from the collaboration between the MoPH, NHSO and affiliated units focusing on the outcomes rather than the processes. Additionally, the data used has been retrieved from existing health information system, an effort to not burden the information system management unit. These indicators reflect the quality of care at all levels of service networks including diseases that are problematic for the MoPH such as diseases with high burden, high risks, and high costs. The data utilized was not only consistent with the issues but also the context of each area. Therefore, the selection of indicators to reflect the quality of health services' performance and to incentivize service units for providing quality services was financially sourced from 3 departments: (i) Prevention and Promotion Budget paid in the amount of 9.00 baht per person for 66.033 million Thai citizens, and (ii) Out-patient budget in the amount of 9.00 baht per person for 47.644 million UC beneficiaries and (iii) Service Budget dispensed, according to quality of service criteria, of 2.00 baht per person for 47.644 million UC beneficiaries.

As per the quality frameworks evaluation, it has discovered that the screening for diabetes mellitus, hypertension and cervical cancer was at a subpar level; this may be due to the COVID-19 situation that limited proactive service provision (Table 2-16)

Table 2-16 Indicator for Quality and Outcome Framework in the Year 2018-2021

Indicator for Quality and Outcome Framework	2018	2019	2020	2021
1. Percentage of Screening DM under all schemes population 35-74 years of age (Target >=90%)	50.58 (UCS: 56.16)	56.57 (UCS: 62.90)	59.26 (UCS: 66.72)	56.32 (UCS: 64.34)
2. Percentage of Screening HT under all schemes population 35-74 years of age (Target >=90%)	51.26 (UCS: 56.72)	55.74 (UCS: 62.30)	58.48 (UCS: 66.29)	55.28 (UCS: 63.68)
3. Percentage of ANC under all schemes received first antenatal within 12 weeks (Target >=60%)	52.83 (UCS: 53.20)	54.60 (UCS: 55.32)	60.65 (UCS: 62.15)	61.14 (UCS: 63.24)
4. Percentage of Pap Smear/Pap test for cervical cancer within 5 years in women 30-60 years of age under all schemes (Target >=80%)	36.30 (UCS: 41.72)	40.07 (UCS: 45.77)	40.65 (UCS: 46.20)	39.54 (UCS: 44.92)
5. Percentage of Rational Drug Use: RDU in antibiotics for Acute Diarrhea outpatients (Target <=40%)	24.07	15.98	14.38	14.32
6. Percentage of Rational Drug Use: RDU in antibiotics for Respiratory Infection outpatients (Target <=40%)	20.57	14.54	12.44	11.44
7. Admission rate in Ambulatory Care Sensitive Condition: ACSC under UC scheme in Epilepsy, COPD, Asthma, Diabetes Mellitus, and Hypertension patients compared with the previous year (Target: admission rate less than the previous year)	+31.77	+11.15	+16.68	-71.79

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of November 30th, 2021

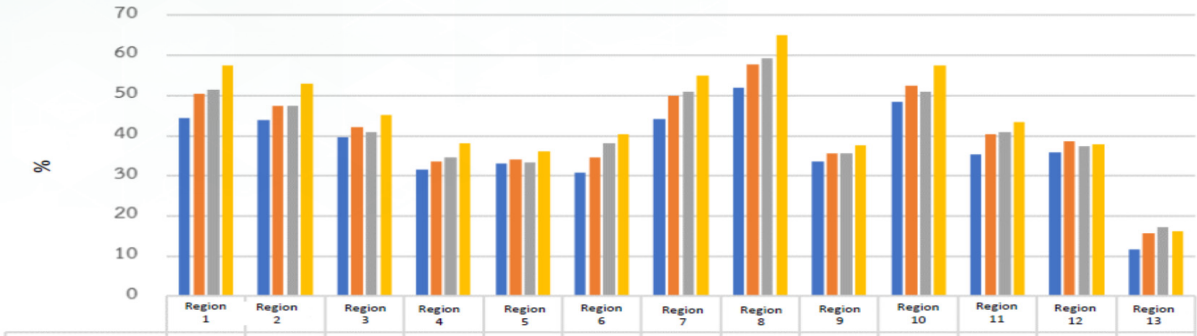
Notes: 1. The annual QOF of the FY 2021 used the outputs from the 3rd and the 4th trimesters of the FY 2020 and the 1st and the 2nd trimesters of the FY 2020 (April 1st 2020 – March 31st, 2021)

2. The 6th indicator is the difference between admission rate per 100,100 population of ACSC under UCS in epilepsy, COPD, asthma, diabetes mellitus and hypertension of the reporting year when compared with the previous year of which the result is in the positive (+) indicating an increase while results in the negative (-) indicates a decrease. For the 2017-2020 years, there has been an increase and did not decrease as targeted while in 2021, there was a decrease due to the social distancing policy from the VOCID-19 situation

4) Quality and Outcome Frameworks: QOF classified by Health region

Although the performance as per the quality criteria had dropped in some items while bettered in some items, there was a considerable regional difference such as the percentage of Pap Smear conducted every 5 years for 30-60years old females had increased in all regions, particularly, Health region 8 at 65 percent ahead of Health regions 10, 1 and 7 at 57.51, 57.41 and 54.99 percentages, respectively. Bangkok, however, had the lowest amount of Pap Smears conducted at 16.2 percent (Figure 2-20). The low numbers of Pap Smears in Bangkok can indicate that Bangkok citizens do not have access to such a service, however, this data does not include those from unregistered UCS units, particularly, the private hospitals, urban service plan development and health data linking. This has become a challenge for the development of a health service system by the relevant offices and networks in promoting health and preventing diseases for Bangkok citizens.

Figure 2-20 Percentage of Pap Smear/Pap test for cervical cancer within 5 years in women 30-60 years of age under all schemes classified by Health region in the Year 2018-2021

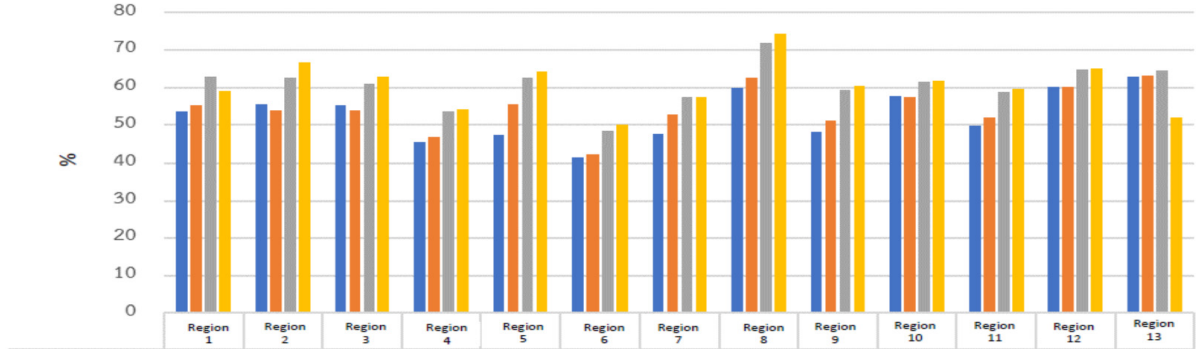


	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	Region 13
2018	44.46	43.82	39.56	31.68	33.11	30.79	44.04	52.07	33.61	48.49	35.37	35.86	11.72
2019	50.46	47.45	42.19	33.53	34.10	34.67	50.02	57.85	35.50	52.43	40.41	38.50	15.65
2020	51.38	47.34	41.00	34.57	33.44	38.11	50.98	59.16	35.49	50.97	40.80	37.33	17.25
2021	57.51	53.08	45.18	38.08	36.11	40.43	54.99	65.00	37.66	57.41	43.38	37.77	16.16

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021.Analyzed as of December 15th, 2021

Notes: The annual QOF of the FY 2021 used the outputs from the 3rd and the 4th trimesters of the FY 2020 and the 1st and the 2nd trimesters of the FY 2020 (April 1st 2020 – March 31st, 2021) In regards to the first antenatal care, Health Region 6 had lowest number of women applying for antenatal care within the first 12 weeks at 50.16 percent while Health Region 8 had the highest hat 74.37 percent (Figure 2-21).

Figure 2-21 Percentage of ANC under all schemes received first antenatal within 12 weeks under all schemes classified by Health region in the Year 2018-2021

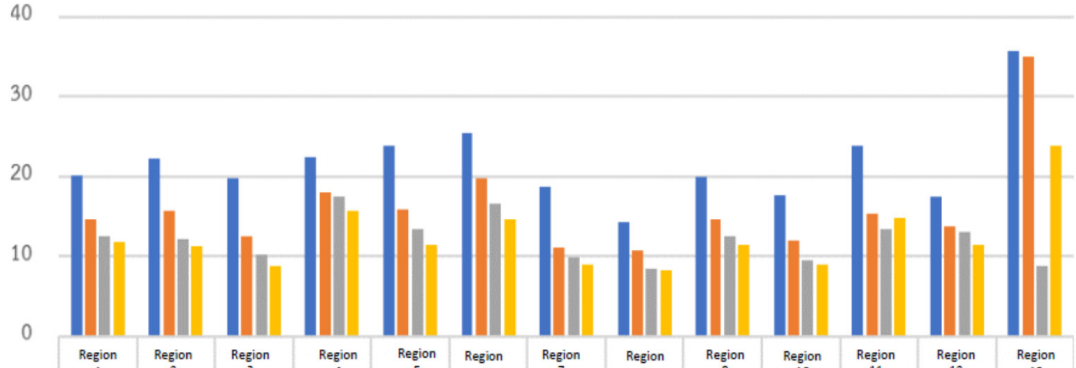


	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	Region 13
2018	53.63	55.68	55.37	45.47	47.23	41.66	47.66	59.95	48.06	57.87	49.85	60.23	63.02
2019	55.25	53.94	53.83	46.95	55.49	42.38	52.88	62.71	51.24	57.59	52.13	60.19	63.32
2020	62.81	62.63	61.12	53.69	62.68	48.44	57.50	71.94	59.37	61.57	58.86	64.87	64.48
2021	59.09	66.75	62.85	54.16	64.33	50.16	57.38	74.37	60.55	61.76	59.76	65.05	52.04

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, Data as of September 30th, 2021. Analyzed as of December 15th, 2021

There has been a lower prescription of antibiotics for infectious respiratory diseases and acute diarrhea in majority of health regions. The heath region with the lowest antibiotic prescription for respiratory infections was Health region 8 (8.23 percent), Health region 3 (8.79 percent), Health region 10, 8.94 percent), Health region 7 (8.99 percent) whereas Bangkok had the highest administration at 23.87 percent (Figure 2-22). As for the Health region with the lowest antibiotic administrations for acute diarrhea was Health region 7 at 10.81 percent, Health region 3 at 11.24 percent, Health region 8 at 12.43 percent and Health region 5 at 12.83 percent while Bangkok with the highest prescriptions at 26.31 percent (Figure 2-23).

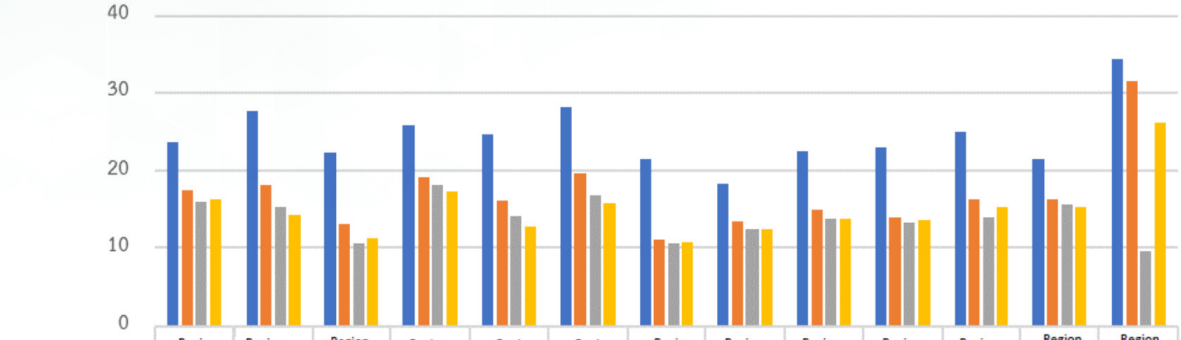
Figure 2-22 Percentage of Rational Drug Use: RDU in antibiotics for Respiratory Infection outpatients under UC scheme classified by Health region in the Year 2018-2021



	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	Region 13
2018	20.14	22.33	19.86	22.38	23.83	25.53	18.67	14.23	20.06	17.71	23.84	17.50	35.68
2019	14.60	15.74	12.57	17.96	15.88	19.73	11.15	10.78	14.61	11.96	15.33	13.77	35.08
2020	12.51	12.16	10.22	17.48	13.36	16.65	9.90	8.42	12.58	9.51	13.42	13.05	8.86
2021	11.75	11.31	8.79	15.69	11.44	14.59	8.99	8.23	11.52	8.94	14.91	11.46	23.87

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, Data as of September 30th, 2021. Analyzed as of December 15th, 2021

Figure 2-23 Percentage of Rational Drug Use: RDU in antibiotics for Acute Diarrhea outpatients under UC scheme classified by Health region in the Year 2018-2021



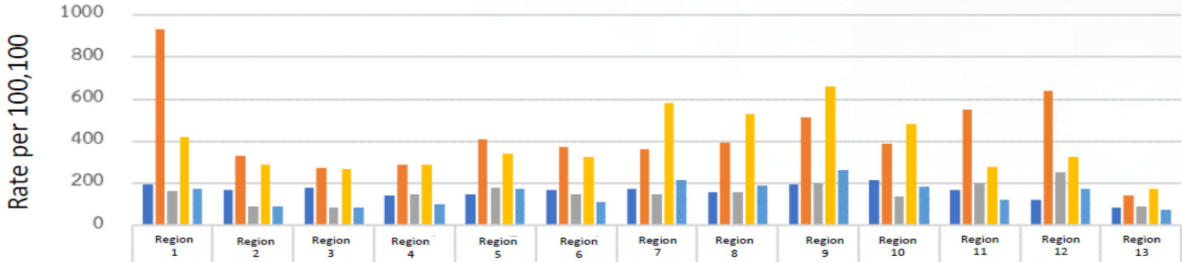
	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	Region 13
2018	23.86	27.60	22.49	26.05	24.82	28.21	21.61	18.36	22.66	23.05	25.13	21.64	34.50
2019	17.47	18.21	13.10	19.27	16.19	19.76	11.03	13.55	14.94	14.03	16.28	16.39	31.57
2020	15.95	15.34	10.55	18.25	14.16	16.90	10.59	12.37	13.88	13.29	14.03	15.63	9.65
2021	16.38	14.24	11.24	17.42	12.83	15.79	10.81	12.43	13.82	13.67	15.37	15.36	26.31

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 15th, 2021

And for Ambulatory Care Sensitivity Conditions (ACSC) per 100,000 population under UCS suffering from epilepsy, COPD, asthma, diabetes mellitus and hypertension, there has been a decrease in admissions in the 2021 fiscal year when compared to 2020 most likely as repercussions from the COVID-19 pandemic that had spread nationwide. Eventually, each health region had developed specific systems catering to specific problematic conditions such as Health region 12 had developed a value-based health care for asthma and COPD (Figures 2-24 and 2-25).

Chronic Obstructive Pulmonary Diseases and Diabetes Mellitus had higher admissions rates than other diseases in all health regions; COPD is still the major health issue in Health regions 1, 12 and 11 as evidenced by their higher admission rates while diabetes mellitus' admission rates were higher in the north-eastern and norther regions.

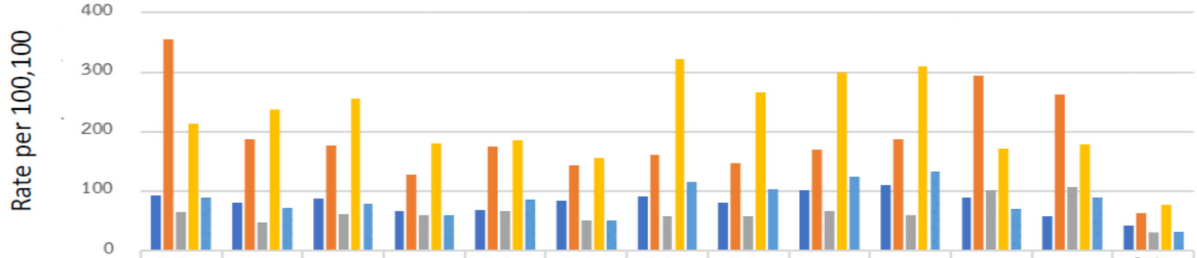
Figure 2-24 Admission rate in Ambulatory Care Sensitive Condition: ACSC under UC scheme in Epilepsy, COPD, Asthma, Diabetes Mellitus, and Hypertension patients under UC scheme classified by Health region in the Year 2020



	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	Region 13
epilepsy	193.68	170.91	179.51	142.41	145.32	167.09	176.41	160.08	194.26	213.89	168.76	119.56	87.44
COPD	932.56	332.76	271.79	291.49	407.52	373.90	362.08	391.83	513.02	386.02	552.48	637.46	142.69
Asthma	162.33	88.52	87.76	149.00	178.12	147.39	148.18	159.44	197.59	135.04	200.77	250.29	89.14
DM	417.37	287.59	268.51	291.39	343.17	328.10	583.87	529.89	660.64	480.68	280.76	323.34	175.69
HT	172.87	91.47	87.53	103.42	176.38	111.27	216.93	190.50	262.14	187.02	121.19	176.05	76.63

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 15th, 2021

Figure 2-25 Admission rate in Ambulatory Care Sensitive Condition: ACSC under UC scheme in Epilepsy, COPD, Asthma, Diabetes Mellitus, and Hypertension patients under UC scheme classified by Health region in the Year 2021



	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	Region 13
Epilepsy	93.50	81.25	87.78	67.57	69.97	85.23	91.14	80.73	101.55	111.17	89.94	58.65	42.75
COPD	355.40	186.92	176.81	128.35	174.91	144.96	162.72	148.99	171.05	188.31	294.96	263.21	63.57
Asthma	65.90	48.77	62.90	60.78	68.27	52.55	58.64	58.54	67.13	60.04	102.17	107.62	30.92
DM	213.28	237.29	256.44	180.25	185.55	157.42	321.98	267.44	298.69	309.52	171.66	179.74	76.99
HT	89.56	73.08	79.82	61.02	86.22	51.50	115.73	103.16	123.46	132.89	70.41	89.84	32.65

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 15th, 2021

In 2022, the UCS had geared towards promoting good health and preventing diseases including primary healthcare services, particularly, in urban areas and Bangkok to establish a solid service system and for citizens to have convenient and trustworthy access. To execute such missions, the UCS had registered private service units as referrals units specifically for health promotion and disease prevention, expanded services to nursing and midwifery, pharmacies, and utilized digital platforms for database, including developed a financial compensation system for service units.

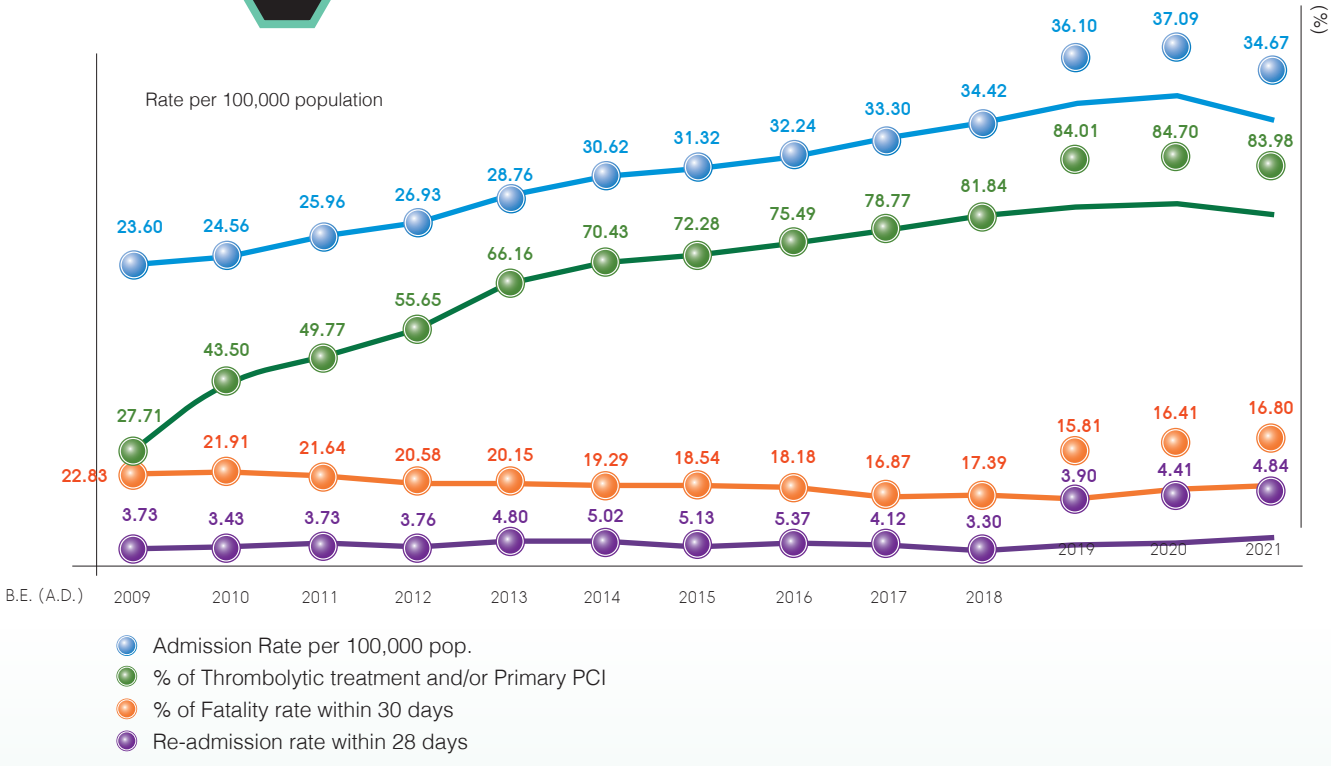
6.1.4 Specialized services and High-cost services

1) ST-elevated Myocardial Infraction (STEMI)

STEMI is a significant cause of death, therefore, the NHSO employs a financial mechanism to increase access to standard care by paying for antithrombotic medications and Percutaneous Coronary Intervention (PCI).

The admission rate of STEMI in the 15 years and older age group under the UCS has increased from 23.60 per 100,000 population in 2009 to 36.93 per 100,000 population in 2020 but decreased in 2021to 34.67 per 100,000 population whilst the number of patients receiving antithrombotic and/or PCI have increased from 27.7 percent in 2009 to 83.98 percent in 2021. The percentage of case fatality rate within 30 days of admission decreased from 22.83 percent in 2009 to 16.80 percent in 2021 while re-admissions within 28 days remained within a range of 3.43 - 5.37% (Figure 2-26)

Figure 2-26 Service for ST-elevated Myocardial Infarction (STEMI) patients under the UC scheme in the Fiscal Year 2009-2021



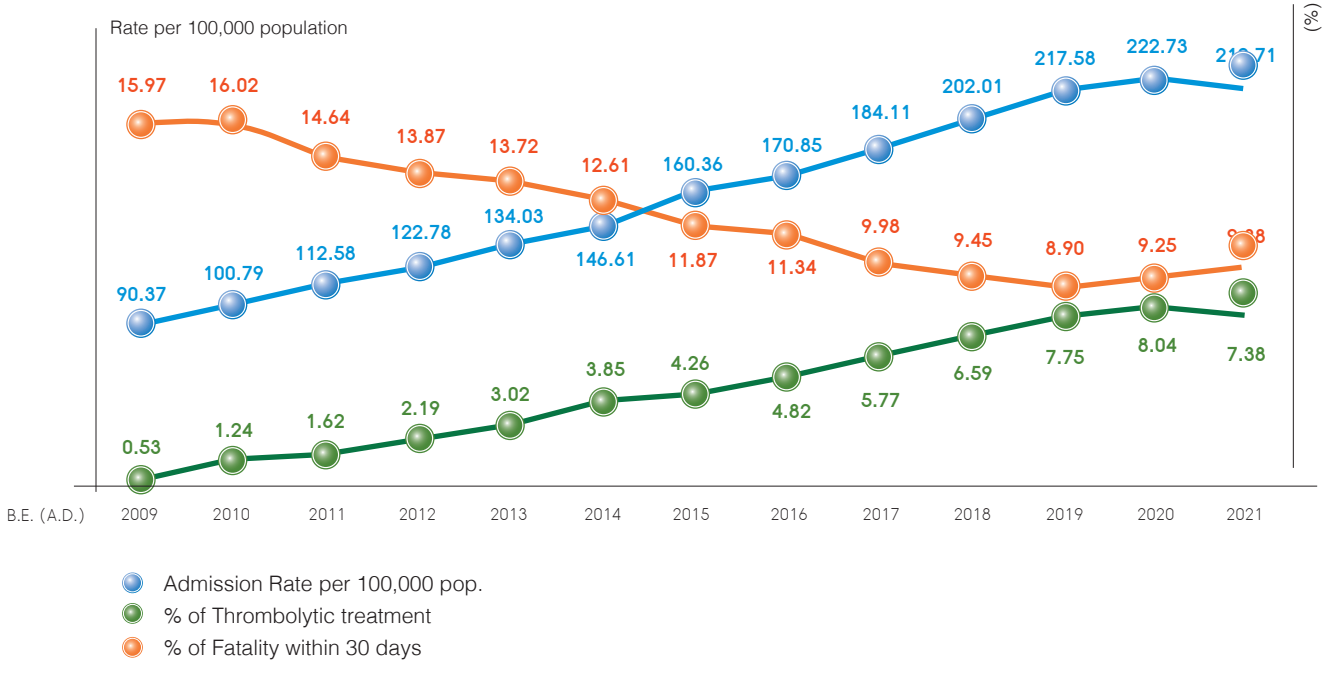
Source: NHSO Health Service Indicator Report: H0301, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 15th, 2021

2) Cerebral Infarction

Cerebral Infarction is a condition that annually increases the risk of paralysis and death. Hence, the NHSO had provided additional financial support through shouldering payments for antithrombotic medications.

The admission rates because of cerebral infarction in 15 years or older age group have increased from 90.37 per 100,000 population in 2009 to 219.71 in 2021. The percentage of patients that received antithrombotic has increased from 0.53 percent in 2009 to 8.04 percent in 2020 while 7.83 percent in 2021 (a drop from 2020). The case fatality rate within 30 days of admission decreased from 15.97 percent in 2009 to 9.38 percent in 2021 (a slight increase from 2020) (Figure 2-27).

Figure 2-27 Service for Cerebral Infarction patients under the UC scheme in the Fiscal Year 2009-2021



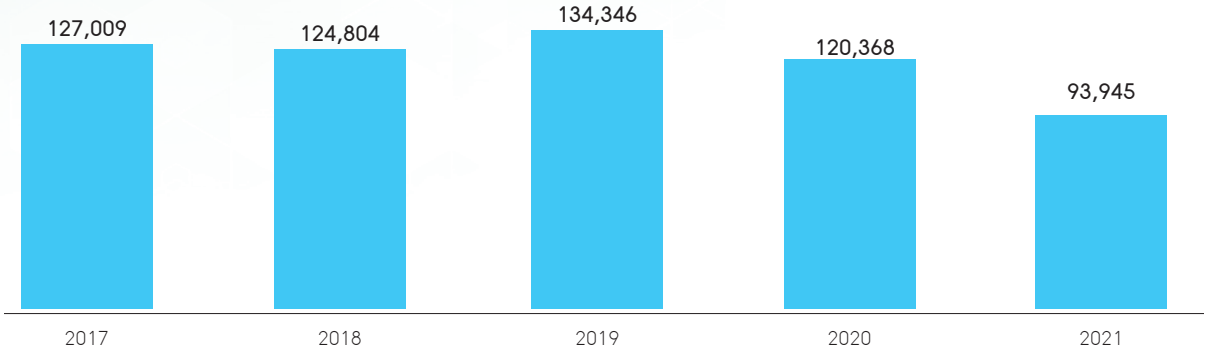
Source: NHSO Health Service Indicator Report: H0301, Monitoring and Evaluation Cluster, NHSO, Data as of September 30th, 2021. Analyzed as of December 15th, 2021

3) Cataract

Cataract is the most common cause of blindness in Thai citizens, hence, the NHSO financially supplements cataract surgeries and intraocular lens expenditures to allow beneficiaries to receive quality and standard treatment.

In the 2021 fiscal year, 93,826 eyes (equivalent to 86,464 beneficiaries) of UC beneficiaries were diagnosed with Senile Cataract, which is a drop when compared to the average number of cataract surgeries from 2017-2019 at 121,913 eyes (Figure 2-28). This is as a result of the COVID-19 pandemic forcing service units to delay and decrease the number of non-emergency services including cataract surgeries.

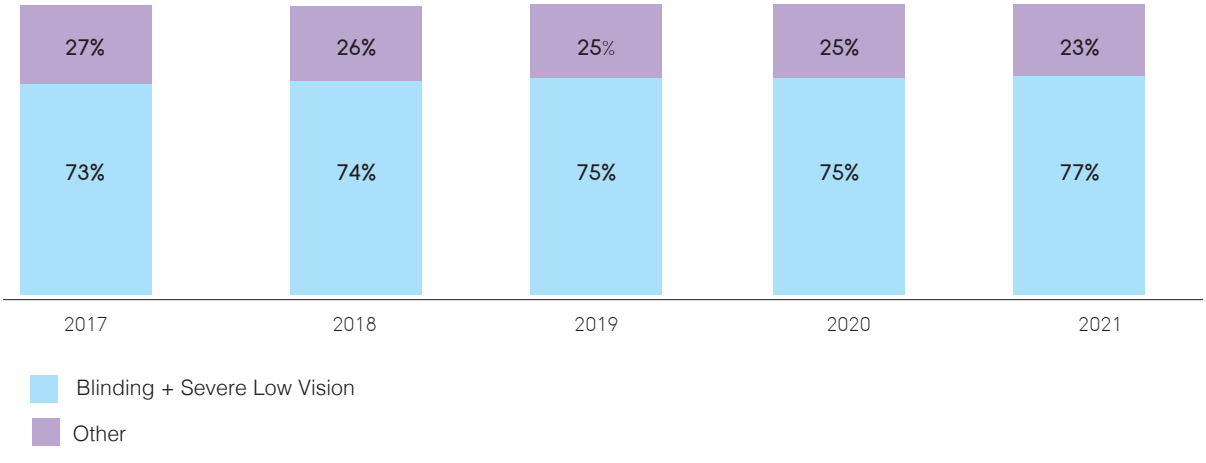
Figure 2-28 Cataract surgery on senile cataract patients under the UC scheme in the Fiscal Year 2017-2021



Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 15th, 2021

However, the NHSO and relevant networks held strong to the policy of providing surgeries for Blinding Cataract patients and severe low vision patients together making up 77 percent of the total catarct surgeries; this was slight increase from the former 70 percent in 2017 and 75 percent in 2020 (Figure 2-29). However, there might be proportional differences in health regions (Figure 2-30).

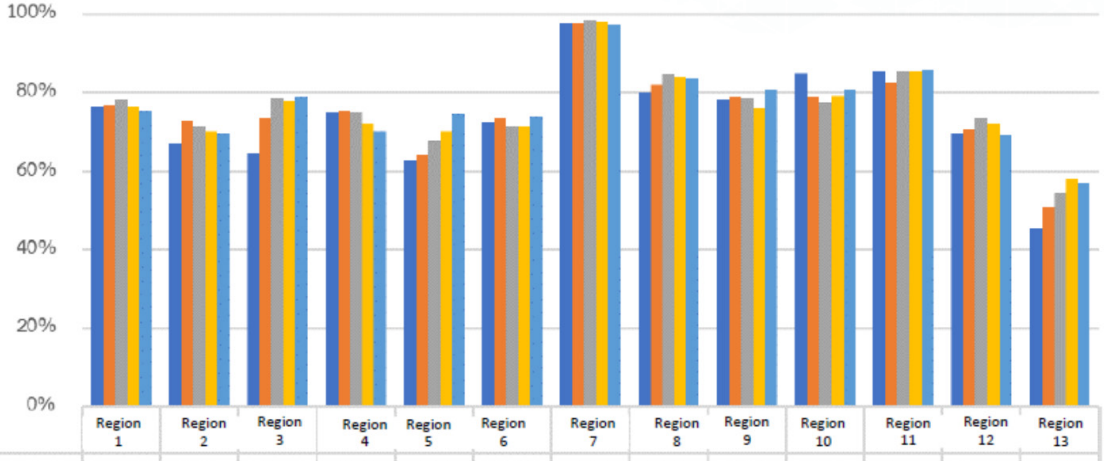
Figure 2-29 Proportion of Cataract surgery, compare to Blinding cataract and Severe low vision and Other vision patients in the Fiscal Year 2017-2021



Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, Data as of September 30th, 2021. Analyzed as of December 15th, 2021

95 percent of the catarct surgeries conducted are performed within public healthcare settings (87 percent under the supervision of the MoPH). When compared to the total nationwide number, there has been a 76.7 percent increase of surgeries from 2015; this is an evidence to an increased capabilities of public healthcare settings in performing cataract surgeries.

Figure 2-30 Percentage of Cataract surgery on Blinding cataract and Severe low vision patients classified by Health region in the Fiscal Year 2017-2021



	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	Region 13
2017	77%	67%	65%	75%	63%	72%	98%	80%	78%	85%	86%	70%	45%
2018	77%	73%	74%	75%	64%	74%	98%	82%	79%	79%	83%	71%	51%
2019	78%	71%	79%	75%	68%	71%	98%	85%	78%	77%	85%	74%	54%
2020	77%	70%	78%	72%	70%	71%	98%	84%	76%	79%	86%	72%	58%
2021	75%	70%	79%	70%	75%	74%	97%	84%	81%	81%	86%	69%	57%

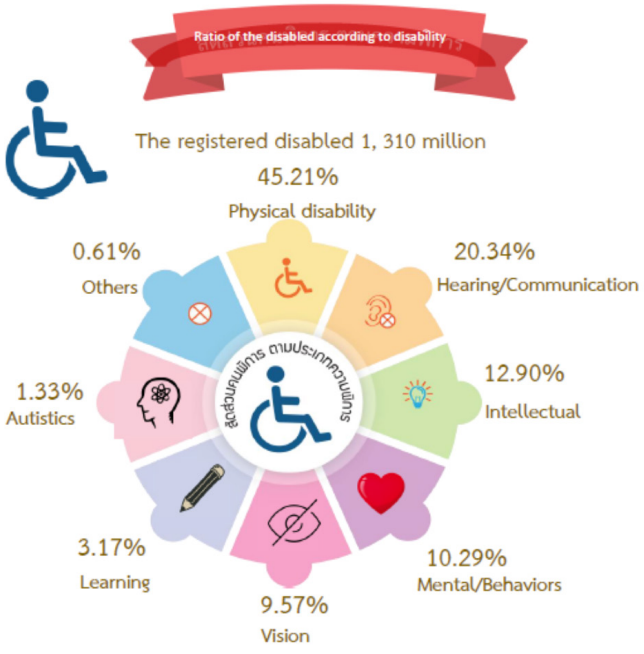
Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 15th, 2021.

6.1.5 Rehabilitation Services

The fiscal 2021 year had allocated 18.40 baht per UC beneficiary for a total of 47.644 million beneficiaries for medical rehabilitation services and had added intermediate care (IMC) for stroke, brain injury and spinal cord injury patients.

There is a continuous increase in disabled individuals registering with the UC and the system had 1.31 million disabled individuals registered classified as follows: 45.21 percent were individuals with movement disability, 20.34 percent were individuals with hearing impairment and 12.90 percent were intellectually impaired individuals (Figure 2-31).

Figure 2-31 Proportion of Disabled under UC scheme classified by Type of disability in the Fiscal Year 2021



Source: *Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021*

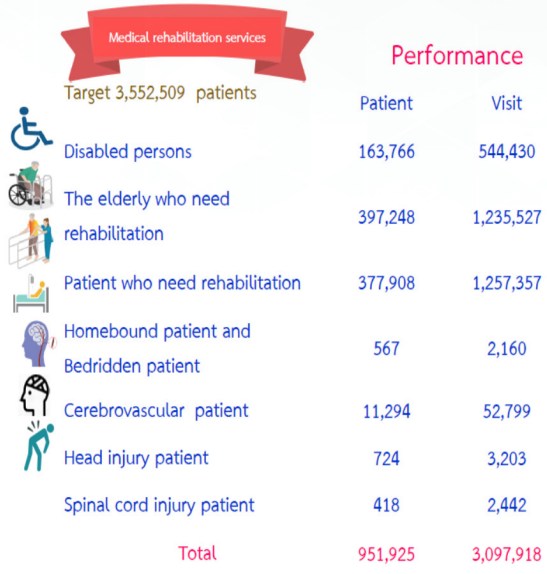
Note: *Disabled individual may have more than one type of disability*

A total of 24,842 disabled individuals received 30,769 assistive devices comprising of 5,559 individuals receiving 7,093 prosthetics arms-legs, 5,540 individuals received 5,616 hearing devices, 243 blind individuals received white cane, or the probing cane, while 13,889 individuals received 17,817 other assistive devices (Figure 2-32) (Table 2-17 and Appendix Table 5-6).

A total of 951,925 individuals received 3,097,918 medical rehabilitation visits divided into 1. 163,766 disabled individuals received 544,430 visits, 2. 397,248 elderly required medical rehabilitation at 1,235,527 times, 3. 377,908 patients required medical rehabilitation at 1,257,357 times, and 4. 567 bed-ridden domiciles received 2,160 medical rehabilitation services. The 2021 fiscal year had seen an addition of Intermediate Care (IMC) for stroke, and brain and spinal cord injury (Figure 2-32) (Tables 2-18 and 2-19, Appendix Tables 5-7 and 5-8).

However, with the COVID-19 pandemic in 2021, the funds form 2021 fiscal year utilized for assistive devices and medical rehabilitation for the disabled had decreased when compared to the former year.

Figure 2-32 Assistive devices support to disabled and Rehabilitation services classified by type of rehabilitees in the Fiscal Year 2021



Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO. data as of September 30th, 2021. Analyzed as of February 6th, 2022 (Data of Health region 13 Bangkok is not included)

Table 2-17 Assistive devices support to disabled classified by Type of devices in the Fiscal Year 2017-2021

Type of Assistive devices support	2017 persons/pieces	2018 persons/pieces	2019 persons/pieces	2020 persons/pieces	2021 persons/pieces
1. Movement supported	6,440/8,451	6,356/8,202	6,486/8,203	6,282/8,134	5,559/7,093
2. Hearing supported	8,353/8,496	8,302/8,366	7,897/7,989	8,080/8,162	5,540/5,616
3. Blinding supported	659/659	392/392	276/276	240/240	243/243
4. Other disabled supported	14,853/17,924	13,789/16,667	13,660/15,861	14,020/18,086	13,889/17,817
Total persons	**29,874**	**28,360**	**27,890**	**28,166**	**24,842**
Total pieces	**35,530**	**33,627**	**32,329**	**34,622**	**30,769**

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of February 6th, 2022 (Data of Health region 13 Bangkok is not included)

Note: Disabled individual may have more than one type of disability

Table 2-18 Rehabilitation services classified by Type of rehabilitees in the Fiscal Year 2017-2021

Type of rehabilitees	2017 persons/pieces	2018 persons/pieces	2019 persons/pieces	2020 persons/pieces	2021 persons/pieces
1. Disabled	184,359/ 731,847	197,950/ 809,853	193,683/ 792,677	185,328/ 677,145	163,766/ 544,430
2. Elderly who needs rehabilitation	414,340/ 1,531,030	480,430/ 1,788,875	486,798/ 1,826,828	437,108/ 1,540,558	397,248/ 1,235,527
3. Patients who need rehabilitation	310,422/ 1,099,270	340,339/ 1,246,949	369,825/ 1,383,664	391,477/ 1,410,315	377,908/ 1,257,357
4. Paralysis	3,203/ 10,557	920/ 4,759	851/ 4,172	693/ 3,157	567/ 2,160
5. Intermediate Care for Stroke, Brain and Spinal cord injury	-	-	-	-	12,436/ 58,444
Total persons	**912,324**	**1,019,639**	**1,051,157**	**1,014,606**	**939,489**
Total visits	**3,372,704**	**3,850,436**	**4,007,341**	**3,631,175**	**3,039,474**

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of February 6th, 2022 (Data of Health region 13 Bangkok is not included)

Table 2-19 Rehabilitation services classified by Type of rehabilitates in the Fiscal Year 2017-2021

Type of rehabilitates	2017 persons/pieces	2018 persons/pieces	2019 persons/pieces	2020 persons/pieces	2021 persons/pieces
1. Physical therapy	638,364/ 2,420,860	682,591/ 2,667,593	693,336/ 2,722,279	628,857/ 2,302,010	559,974/ 1,868,502
2. Psychotherapy	188,605/ 502,734	221,783/ 652,477	248,825/ 725,713	283,031/ 808,176	272,767/ 745,156
3. Behavior therapy	40,953/ 107,864	57,306/ 151,233	83,013/ 219,123	88,513/ 229,369	105,724/ 261,701
4. Activity therapy	44,888/ 184,070	49,150/ 200,035	48,021/ 199,691	47,650/ 171,223	39,213/ 127,242
5. Hearing rehabilitation	24,239/ 33,669	24,163/ 33,897	22,975/ 33,087	24,221/ 34,450	19,405/ 25,877
6. Early Intervention	25,829/ 61,496	22,681/ 49,218	24,326/ 54,236	25,184/ 51,535	20,997/ 41,279
7. Visual rehabilitation	20,306/ 33,404	41,858/ 67,620	19,515/ 25,881	6,538/ 12,705	6,098/ 10,912
8. Speech rehabilitation	8,112/ 28,016	8,285/ 27,691	8,185/ 26,675	7,729/ 21,162	6,902/ 16,802
9. Phenol Block	448/ 591	470/ 672	494/ 656	418/ 545	308/ 447
Total persons	**912,324**	**1,019,639**	**1,051,157**	**1,014,606**	**951,925**
Total visits	**3,372,704**	**3,850,436**	**4,007,341**	**3,631,175**	**3,097,918**

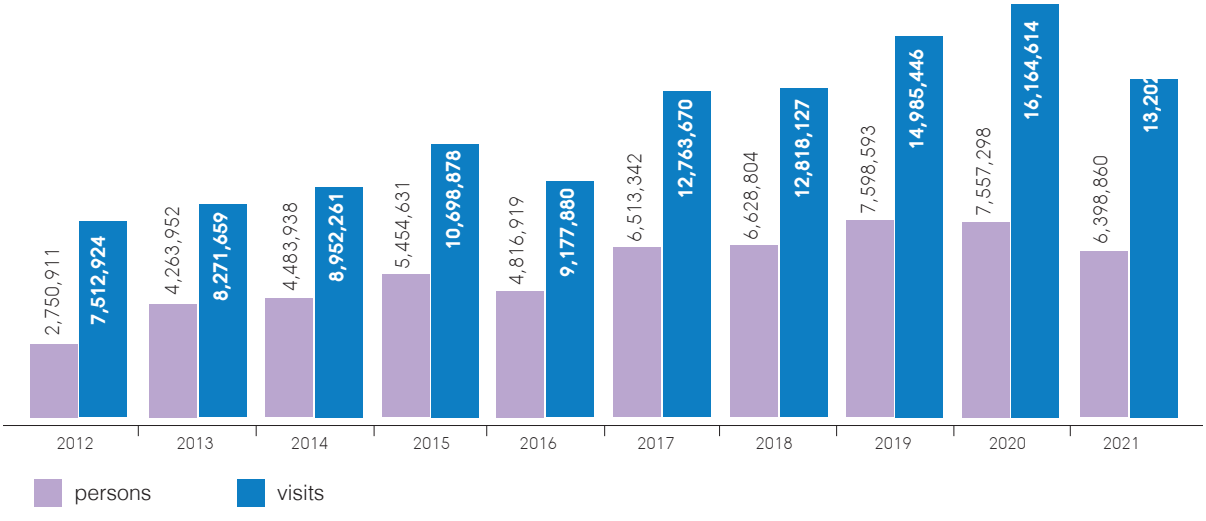
Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO. data as of September 30th, 202. Analyzed as of February 6th, 2022 (Data of Health region 13 Bangkok is not included)

6.1.6 Traditional Medicine services

In the 2021 fiscal year, 7.90 baht per beneficiary was earmarked for 47.644 million individuals for Thai traditional medical services and acupuncture for new stroke patients; however, since COVID-19 pandemic, there was a decline in Thai traditional services when compared to the year before. A total of 6.399 million individuals had rendered Thai traditional medical services at 13,202 million times consisting of 1.942 million individuals rendered 3.912 million massages-hot compresses- herbal steams, 60,493 mothers had engaged in postpartum care at 189,358 times, 4.394 million individuals administered 9.089 million Thai traditional medical from the Essential Drug List and with the new addition of acupuncture for new stroke patients, 2,055 new strokes patients had received 12,177 acupuncture treatments (Figures 2-33 and 2-34) (Table 2-20 and Appendix Table 5-9).

Similar to other benefits, Thai traditional medical services also experienced a decline due to the COVID-19 pandemic when compared to the former year.

Figure 2-33 Thai Traditional Medicine services classified by Type of services in the Fiscal Year 2012-2021



Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of March 3rd, 2022.

Notes: 1. Thai traditional medicine: massages, compressions, herbal steams, postpartum care, and herbal medicine (specific in Essential Drugs List) and acupuncture for new stroke patients

2. In the FY 2021, the NHSO had added acupuncture, or electric acupuncture, for new stroke patients

Figure 2-34 Thai Traditional Medicine services classified by Type of services in the Fiscal Year 2021

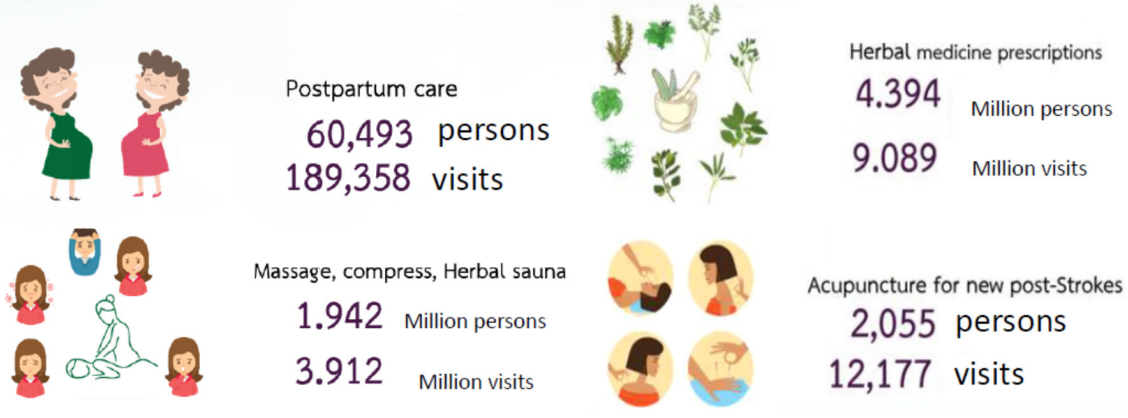


Table 2-20 Thai Traditional Medicine services classified by Type of services in the Fiscal Year 2017-2021

Thai Traditional Medicine	2017 persons/pieces	2018 persons/pieces	2019 persons/pieces	2020 persons/pieces	2021 persons/pieces
1. Massage, compress, herbal saunas	1,883,692/ 4,801,846	1,780,025/ 4,482,707	2,112,346/ 5,292,137	1,879,801/ 4,356,592	1,942,487/ 3,911,754
2. Postpartum care	44,902/ 158,382	45,328/ 174,333	60,833/ 223,957	67,017/ 212,988	60,493/ 189,358
3. Herbal medicine prescriptions	4,584,748/ 7,803,442	4,803,451/ 8,161,087	5,425,414/ 9,469,352	5,610,480/ 11,595,034	4,393,825/ 9,089,167
4. Acupuncture for new post-Strokes	-	-	-	-	2,055/ 12,177
Total persons	**6,513,342**	**6,628,804**	**7,598,593**	**7,557,298**	**6,398,860**
Total visits	**12,763,670**	**12,818,127**	**14,985,446**	**16,164,614**	**13,202,456**

Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of March 3rd, 2022.

6.1.7 Compensation for Patients and Healthcare Providers

In regards to compensation to beneficiaries after having suffered damages from the health service units as specified in Article 41 of the National Health Security Act. In the 2021 fiscal year, 1,026 beneficiaries had made complaints of whom 845 had received 208.259 million baht in compensation classified as follows: 421 deaths/decrepit (49.82 percent) at 154.425 million baht, 104 organ damage/ disability (12.31 percent) at 23.089 million baht and 320 injured/chronic illnesses (37.87 percent) at 22.310 million baht including appeal cases at 8.434 million baht (Table 2-21).

As for **preliminary financial assistance to health providers in cases of damages after services** as declared in the governmental gazette on 28th March, 2018; there were a total of 760 complaints of which 677 complaints were compensated a total of 9.873 million baht (Table 2-22).

Table 2-21 Harmed patients and Liability compensation in the Fiscal Year 2017-2021

Compensation for patients	2017	2018	2019	2020	2021
1. Lodging petition: cases	1,108	1,158	1,188	1,079	1,026
2. Receiving compensation: cases	907	927	970	903	845
- Death/complete disability: cases	461	415	466	438	421
- organ loss/partial disability: cases	99	110	126	119	104
- injury/continuing illness: cases	347	402	378	346	320
3. Compensation: Million Baht	222.027	202.156	228.014	213.957	208.259

Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th, 2021.

Table 2-22 Harmed healthcare providers and Liability compensation in the Fiscal Year 2018-2021

Compensation for healthcare providers	2017	2018	2019	2020
1. Lodging petition: cases	511	538	590	760
2. Receiving compensation: cases	427	464	528	677
- Death/complete disability: cases	3	3	2	4
- Organ loss/partial disability: cases	-	3	1	-
- Injury/continuing illness: cases	424	458	525	673
3. Compensation: Million Baht	6.305	7.005	6.254	9.873

Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th, 2021.

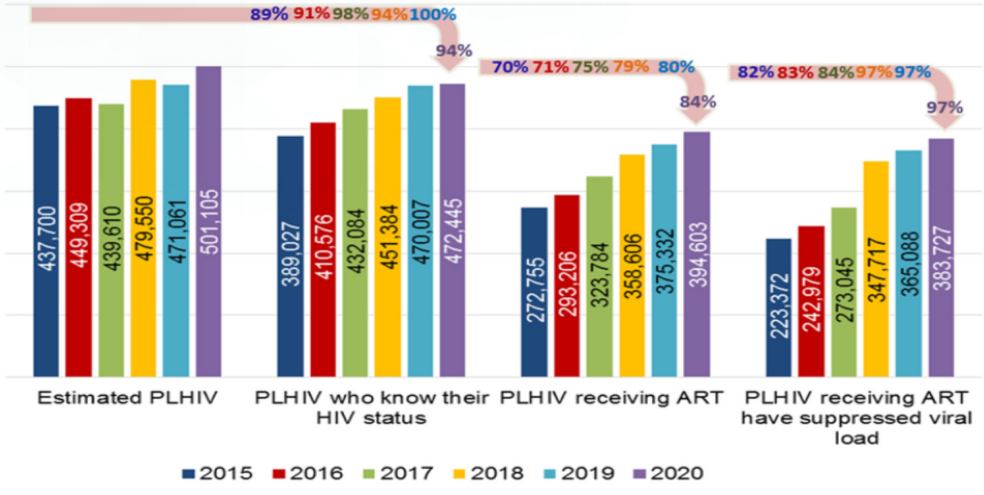
6.2 Health Service Utilization for Specialized groups

6.2.1 Antiretroviral Therapy in HIV/AIDS Patients

As the cabinet had approved a political declaration on HIV and AIDS in 2021 during the United Nations General Assembly High-Level Meeting calling on all countries to join hands in eradicating AIDS within B.E. 2573 (A.D. 2030) with a 95-95-95 target: 95 percent of citizens have been screened for HIV, 95 percent have been prescribed with antivirals, and 95 percent are able to suppress the viral load in blood.

Thailand's performance in 2020 was at 94-84-97, or 94 percent of HIV positive individuals had received screenings and results, 84 percent were prescribed with antivirals, and 97 percent were able to suppress their viral load (Figure 2-35) as referred from the National AIDS Management Centre (NAMc), Ministry of Public Health, in 2020.

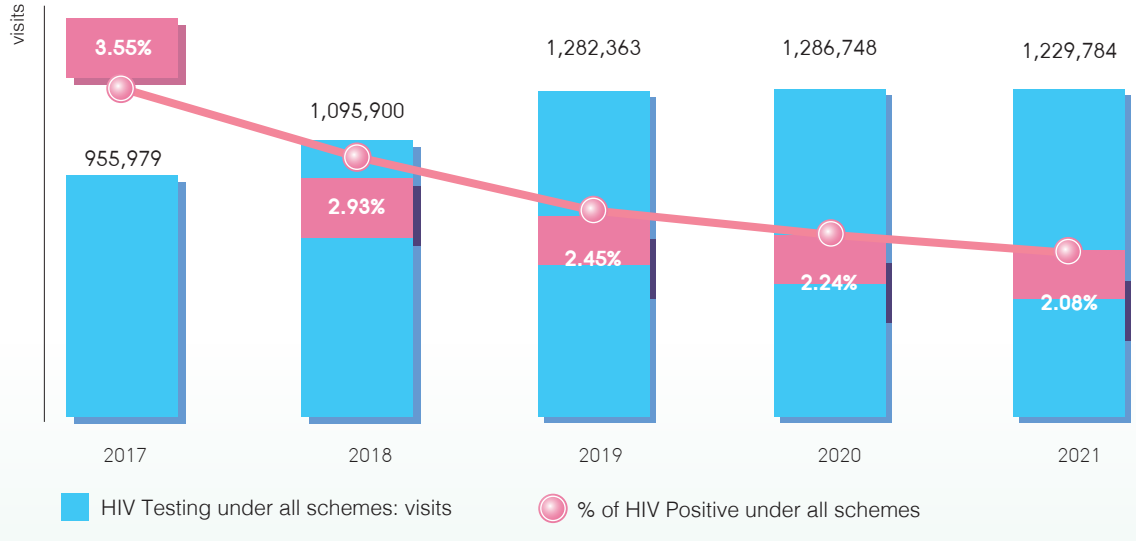
Figure 2-35 Thailand Achievement in the Year 2015-2020 for Ending AIDS to Goals 95-95-95 targets in the Year 2030



Source: National AIDS Management Center, Department of Disease Control, MOPH, data in the Year 2015-2020, published on April 30th, 2021.

The NHSO, as the organization responsible for such achievements, had provisioned Pre-Exposure Prophylaxis (PrEP) for at-risk groups, or groups emitting signs of being HIV positive in the 2021 fiscal year. The NHSO had pushed for the "New Normal - New HIV Testing": HIV Free Screening, Fast Treatment to Recovery as an awareness campaign encouraging citizens to be aware of self-HIV status faster in order to begin treatment and plan for their futures. All Thai citizens with a 13-digits identification card can participate in HIV Voluntary counseling and testing (VCT) free, twice a year. 1,229,784 HIV screenings were accomplished of which 25,631 were positive, or 2.08 percent, signifying a decreasing trend in HIV positive patients (Table 2-36).

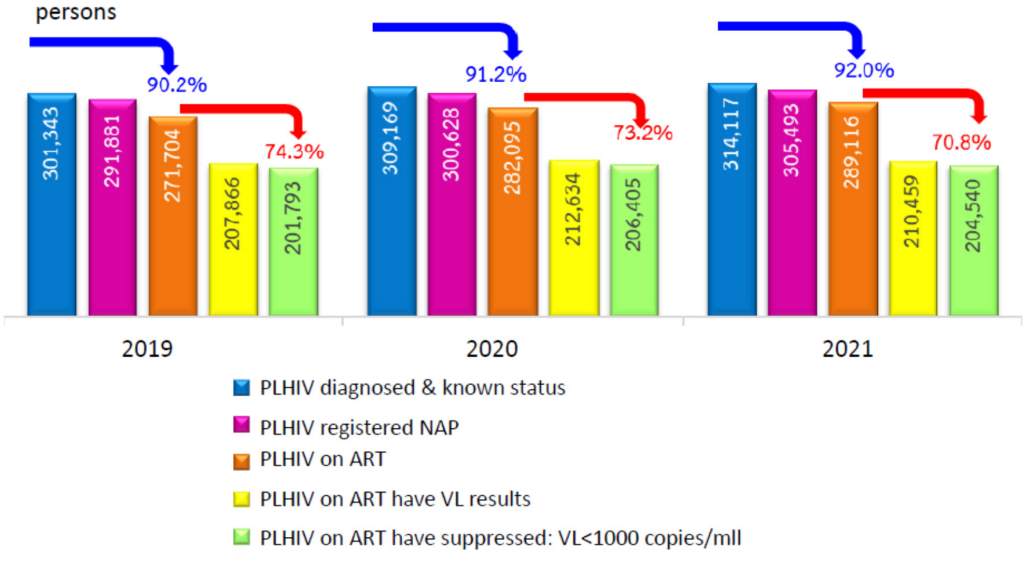
Figure 2-36 HIV Testing and diagnosed results HIV is positive under all schemes in the Fiscal Year 2017-2021



Source: National AIDS Program: NAP Report Program, Fund Management Unit, NHSO, data as of September 30th, 2021. Analyzed as of February 17th, 2022.

As per the National AIDS Program (NAP), it has been found that there are 314,117 UC HIV-positive and AIDS patients of whom 305,493 had registered with the NAP system; 289,116 HIV-positive individuals had received antivirals (excluding deaths), or 92 percent of everyone who is aware of their status; and 204,540, or 70.8 percent, of HIV-positive patients receiving were able to suppress the viral load (Viral load <1000 copies/ml, suppressed) *Figure 2-37) (Table 2-23 and Appendix Table 5-10).

Figure 2-37 Services for People Living with HIV & AIDS under the UC scheme in the Fiscal Year 2019-2021



Source: National AIDS Program: NAP Report Program, Fund Management Unit, NHSO, data as of September 30th, 2021. Analyzed as of November 1st, 2021.

Notes: 1. Estimated PLHIV, National AIDS Management Centre (NAMc), Ministry of Public Health, 2020. Publicized as of April 30th , 2021, and had estimated HIV/AIDS beneficiaries of NHSO receiving ART when compared to patients receiving ART from other schemes.

2. VL suppressed: HIV/AIDS patients receiving ART for 12 months and with a VL<1,000 copies/ml

3. Undetectable: HIV/AIDS patients receiving ART for 12 months and with a VL<50 copies/ml

Table 2-23 Services for People Living with HIV & AIDS under the UC scheme in the Fiscal Year 2017-2021

Unit: persons

Service package of PLHA under UCS	2017	2018	2019	2020	2021
1. PLHIV Diagnosed & known status	285,786	293,564	301,343	309,169	314,117
2. PLHIV Registered NAP	275,452	283,773	291,881	300,628	305,493
3.1 PLHIV on ART	251,476	262,274	271,704	282,095	289,116
- % of PLHIV on ART to PLHIV with Diagnosed & known status	88%	89%	90%	91%	92%

Unit: persons

Service package of PLHA under UCS	2017	2018	2019	2020	2021
3.2 PLHIV on ART in current period exclude un-continuous ART and Loss to follow up	224,342	233,336	237,278	245,660	252,029
4. PLHIV with VL tested	196,023	204,643	207,866	212,634	210,459
5. PLHIV with VL< 1000 copies/ml: VL Suppression	189,378	198,000	201,793	206,405	204,540
- % of PLHIV with VL Suppression to PLHIV on ART	75%	75%	74%	73%	71%
6. PLHIV with VL< 50 copies/ml: VL Undetectable	181,022	188,855	193,641	195,998	194,611
- % of PLHIV with VL Undetectable to PLHIV on ART	72%	72%	71%	69%	67%

Source: National AIDS Program: NAP Report Program, Fund Management Unit, NHSO, data as of September 30th, 2021,Analyzed as of November 1st, 2021.

Notes: 1. Estimated PLHIV, National AIDS Management Centre (NAMc), Ministry of Public Health, 2020, as publicized on 30th April, 2021, and had estimated HIV/AIDS beneficiaries of NHSO receiving ART when compared to patients receiving ART from other schemes

2. VL suppressed: HIV/AIDS patients receiving ART for 12 months and with a VL<1,000 copies/ml

3. Undetectable: HIV/AIDS patients receiving ART for 12 months and with a VL<50 copies/ml

6.2.2 HIV Prevention in High-risk group

HIV Prevention in High-risk groups covers male homosexuals (men sex men: MSM), transgenders (TG), females and males sex workers (FSW/MSW), and intravenous drug users (individuals who inject drug into their blood vessels: PWID) for whom there has been a proactive search, providing education and encouragement to be screened (Reached & Recruited). A total of 84,598 individuals were reached and recruited; the number is divided as follows: 62,766 MSM, 4,751 TGs, 14,126 FSW, 2,196 MSW and 759 PWID. While 80,328 individuals were tested for HIV of which 59,242 were MSM, 4,459 were TGs, 13,807 were FSW, 2,092 were MSW, and 728 PWID (110.87 percent, or 72,500 individuals, were allocated funds) (Table 2-24 and Appendix Table 5-11)

Table 2-24 HIV Prevention in High-risk groups classified by Health region in the Fiscal Year 2021

Unit: persons

HIV Prevention in High-risk groups	2017	2018	2019	2020	2021
1. Reached & Recruited	57,665	57,589	59,850	86,955	84,598
- MSM	28,827	41,183			62,766
- TG					4,751
- FSW	27,309	13,963			14,126
- MSW	0	809			2,196
- PWID	1,529	1,634			759
2. HIV Testing	NA	50,488	51,817	74,228	80,328
- MSM		34,183			59,242
- TG					4,459
- FSW		13,867			13,807
- MSW		806			2,092
- PWID		1,632			728

Source: National AIDS Program: NAP Report Program, Fund Management Unit, NHSO, data as of September 30th, 2021.

Notes: 1. High-risk groups are Men sex with men (MSM), Transgender (TG), Female/Male sex worker (FSW/MSW), People who inject drugs (PWID)

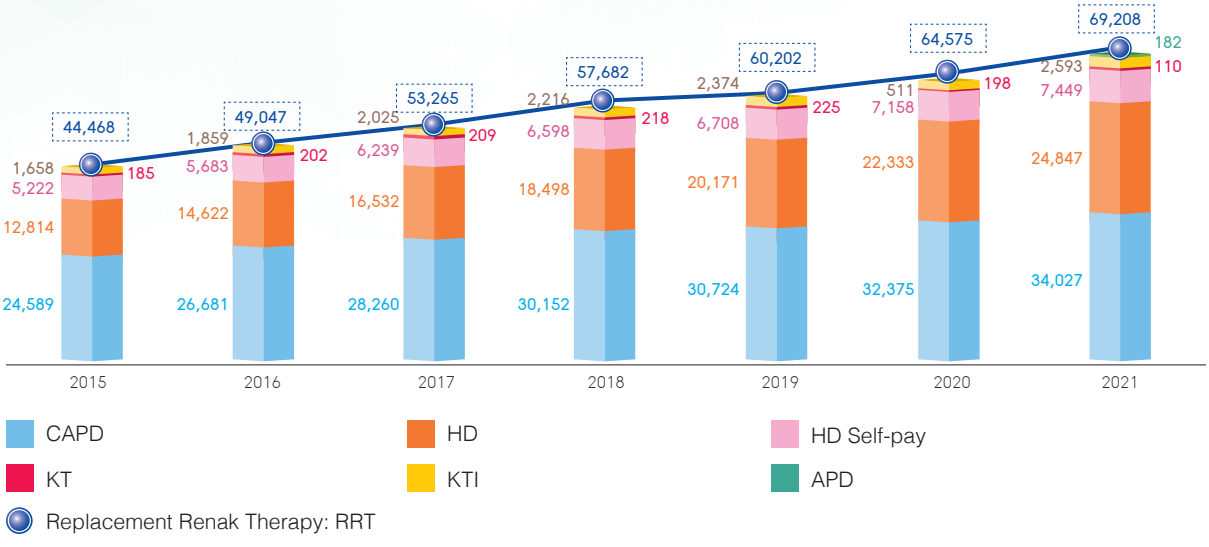
2. Prevention of HIV in high-risk groups, 2017-2019, from the proactive search of vulnerable groups to be Reached & Recruited) while for 2020-2021 calculated from the number of HIV Testing

6.2.3 Renal Replacement Therapy in Chronic Kidney Disease Patients

For individuals suffering from chronic kidney diseases, it is a necessity to receive renal replacement therapy whilst waiting for a transplant; however, such therapy places undue financial hardships on household leading to bankruptcy. Therefore, the UCS has been executing the Peritoneal dialysis' First policy since 2008 with other sectors allowing chronic kidney diseases patients to have employment, a good social life, thus, a better quality of life without having to get admitted.

In the 2021 fiscal year, automated peritoneal dialysis had been added to the list as an alternative for patient exhibitions medical symptoms to have a better lifestyle. 69,208 patients had received renal replacement r therapy of which 34,027 had received Continuous Ambulatory Peritoneal Dialysis (CAPD), 24,847 had received hemodialysis (HD), while 7,449 patients, who did not wish to receive CAPD, were administered Erythropoietin (EPO) whose expenditure was compensated by the NHSO, 110 individuals had received kidney transplantations in 2021, 2,593 old and new patients were prescribed immunosuppressive drugs for kidney transplantations (KT), and 182 had undergone Automated Peritoneal Dialysis (APD) (Figure 2-38) (Table 2-25 and Appendix Table 5-12).

Figure 2-38 Renal Replacement Therapy in Chronic Kidney Disease Patients in the Fiscal Year 2015-2021



Source: Chronic Kidney Disease: CKD Reports, Fund Management Unit, NHSO, data as of September 30th, 2021. Analyzed as of February 1st , 2022.

Notes:
1. *Chronic kidney failure patients can change treatment plan within the same fiscal year*
2. *Number of patients using service excludes patients who have died to reduce repeated counts.*
3. *Hemodialysis (HD) is a dialysis service for end-stage renal failure patients as per the criteria set by the NHSO's fund subsidizing for vascular access, hemodialysis cost, erythropoietin, and administration fees*
4. *For HD self-pay, the NHSO's fund only subsidize the cost of erythropoietin for renal replacement therapy patients using hemodialysis but not continuous ambulatory peritoneal dialysis (CAPD) and did not meet the committee's approval for end-stage renal disease treatment access on a district level*
5. *Automated Peritoneal dialysis is a newly added benefit in 2021*

Table 2-25 Renal Replacement Therapy in Chronic Renal Failure Patients in the Fiscal Year 2017-2021

Unit: persons

Renal Replacement Therapy	2017	2018	2019	2020	2021
1. Continuous Ambulatory Peritoneal Dialysis: CAPD	28,260	30,152	30,724	32,375	34,027
Old cases from the previous year	20,450	21,693	22,235	22,995	23,816
New cases in the current year					
- New cases	7,413	7,984	8,049	8,926	9,748
- Shift from another method	397	475	440	454	463
Dropout cases in the current year					
- Dead cases	5,261	6,591	6,346	7,150	7,745
- Shift to another method	1,293	1,315	1,369	1,399	1,925
- Loss to follow up cases	13	11	14	10	14
2. Hemodialysis: HD	16,532	18,498	20,171	22,333	24,847
Old cases bring from the previous year	12,861	14,644	16,247	17,996	19,855

Unit: persons

Renal Replacement Therapy	2017	2018	2019	2020	2021
New cases in the current year					
- New cases	1,692	1,836	1,845	2,143	2,325
- Shift from another method	1,979	2,018	2,079	2,194	2,667
Dropout cases in the current year					
- Dead cases	1,801	2,141	2,062	2,355	2,927
- Shift to another method	87	110	113	123	93
3. Hemodialysis with patient's Self Pay: HD Self-pay	6,239	6,598	6,708	7,158	7,449
Old cases bring from the previous year	4,380	4,858	5,001	5,329	5,602
New cases in the current year					
- New cases	1,819	1,716	1,680	1,800	1,816
- Shift from another method	40	24	27	29	31
Dropout cases in the current year					
- Dead cases	807	989	769	918	1,137
- Shift to another method	574	608	610	638	707
4. Kidney Transplantation: KT	209	218	225	198	110
New cases in the current year	209	218	225	198	110
Dead cases in the current year	13	25	20	19	34
5. Kidney Transplantation Immuno-suppressive Drug: KTI	2,025	2,216	2,374	2,511	2,593
Old cases bring from the previous year	1,791	1,952	2,103	2,279	2,416
New cases in the current year	234	264	271	232	177
Dropout cases in the current year					
- Dead cases	40	81	47	57	73
- Shift to another method	33	32	48	38	51
6. Automated Peritoneal Dialysis: APD	-	-	-	-	182
Total	**53,265**	**57,682**	**60,202**	**64,575**	**69,208**

Source: Chronic Kidney Disease: CKD Reports, Fund Management Unit, NHSO, data as of September 30th, 2021. Analyzed as of February 1st, 2022.

Notes:
1. *Chronic kidney failure patients can change treatment plan within the same fiscal year*
2. *Number of patients using service excludes patients who have died to reduce repeated counts.*
3. *Hemodialysis (HD) is a dialysis service for end-stage renal failure patients as per the criteria set by the NHSO's fund subsidizing for vascular access, hemodialysis cost, erythropoietin, and administration fees.*
4. *For HD self-pay, the NHSO's fund only subsidize the cost of erythropoietin for renal replacement therapy patients using hemodialysis but not continuous ambulatory peritoneal dialysis (CAPD) and did not meet the committee's approval for end-stage renal disease treatment access on a district level*
5. *Automated Peritoneal dialysis is a newly added benefit in 2021*

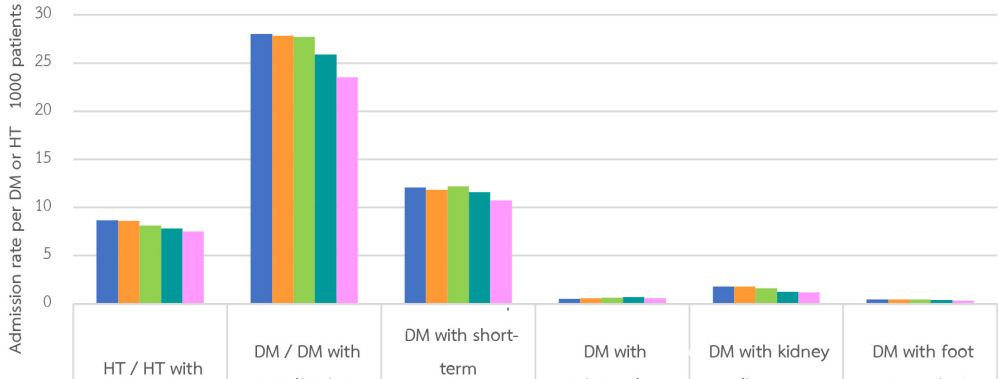
6.2.4 Secondary Prevention in Diabetes and Hypertension Patients

Diabetes Mellitus and hypertension are preventable diseases as a result of lifestyle and behavior of individuals and treatment after onset of diseases may not alleviate the long-term financial liabilities of patients, families and society; therefore, prevention must be execution concomitantly. The NHSO had earmarked additional budget, apart from capitation, for medications, risks/complications screening and self- management for patients to control and delay the severity of both the diseases including elevate the standard of care for diabetes and hypertension. The fiscal 2021 year had made possible for 4 million patients (108.16 percent of target 3.699 million individuals) suffering from diabetes mellitus and hypertension but have not had complications as yet. Of the 4 million, 1.918 million diabetic and hypertensive diabetics had been tested for HbA1c, Lipid profile, Micro-albuminuria, retina, and details foot inspections; these inspections happen at least once a year with the end of goal of controlling blood sugar at a healthy level (HbA1c < 75). 2.083 million hypertensive patients were inspected for Fasting Plasma Glucose, lipid profile, urinalysis, also at least once a year, for management of blood pressure to be lower than 140/90 mmHg (Source: Strategy and Policy Driving Division, and Monitoring and Evaluation for Payment Department, NHSO, as on 30th September, 2021).

20.68 percent of diabetic patients (733,000 patients from 3.545 million individuals) had excellently managed their blood sugar levels to below or equal to 7mg% while 25.96 percent of hypertensive patients were able to keep their last 2 blood pressure values under or equal to 140/90 mmHg.

In the 2021 fiscal year, 7.54 patients per 1,000 registered patients were admitted for hypertension, or hypertension with complications; 23.52 patients per 1,000 patients were admitted for diabetes mellitus, or diabetes with complications. This was a significant decrease due to the COVID-19 crisis enforcing social-distancing amongst people (Figure 2-39).

Figure 2-39 Admission rate of Diabetic with complication or Hypertension with complication per DM or HT patients 1000 persons in registered healthcare units in the Fiscal Year 2017-2021



	HT / HT with complication	DM / DM with complication	DM with short-term complication	DM with retinopathy	DM with kidney disease	DM with foot amputation
2017	8.68	28.00	12.09	0.54	1.80	0.49
2018	8.59	27.85	11.83	0.61	1.79	0.47
2019	8.13	27.70	12.23	0.66	1.63	0.44
2020	7.81	25.88	11.59	0.69	1.28	0.43
2021	7.54	23.52	10.75	0.62	1.19	0.37

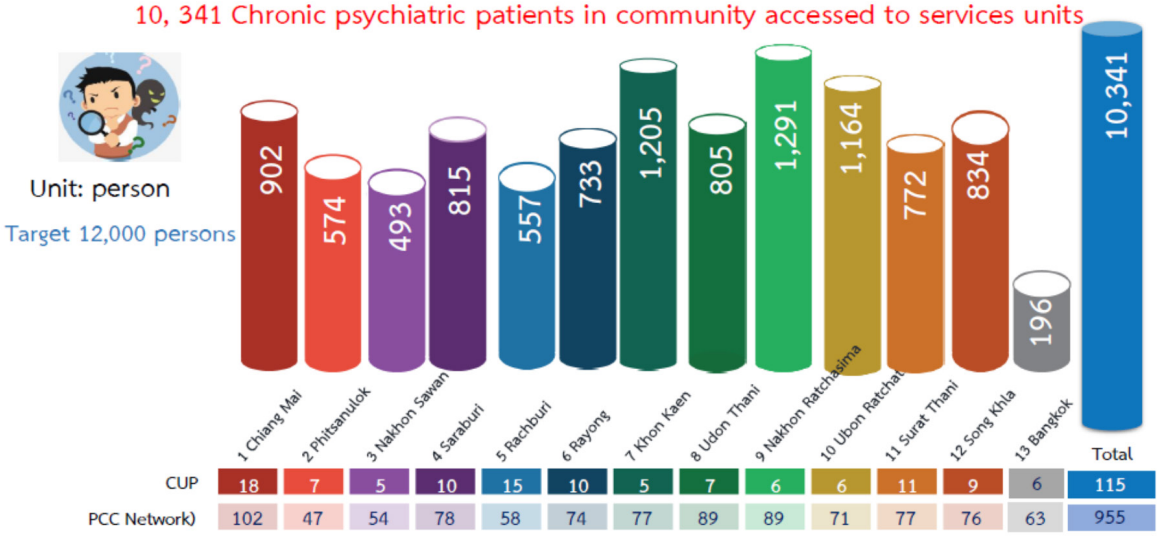
Source: Report for Monitoring and Evaluation for Payment: H0401, Monitoring and Evaluation Cluster, NHSO, data as of September 30th 2021. Analyzed as of March 3rd, 2022.

6.2.5 Service care for Chronic Psychiatric/ Schizophrenia patients in a community

For chronic psychiatric patients in communities to be monitored, rehabilitated and continuously cared for to attain a good quality of life with the end goal of living normally in the society, there has been a registration system established for the Individual Care Plan and a network had been created on all levels: community, regular units including host/caregivers (Psychiatric hospitals or regional hospitals or general hospitals with psychiatrists). In the 2021 fiscal year, funds had been allocated to 115 host/caregivers units consisting of psychiatric hospitals, regional hospitals, provincial hospitals ready to provide such services; there funds also assigned to networks such as contracted units and primary care units. These networks coordinated with communities to monitor, rehabilitate and care for chronic psychiatric patients as per the Care Planned in various aspects as follows: 1. Psychiatry, 2. Drug administration, 3. Caregiver/ relative/family, 4. Alcohol/drug usage, 5. Daily tasks accomplishments, 6. Employment status, 7. Familial relationships, 8. Living environment, 9. Communication, and 10. Basic learning skills.

The fiscal 2021 year had seen 11,825 chronic patients registering of whom 10,341 had been continuously monitored in the community as per their individual care plan (Figure 2-40) (Appendix Table 5-13).

Figure 2-40 Service care for Chronic Psychiatric/ Schizophrenia patients in community in the Fiscal Year 2021



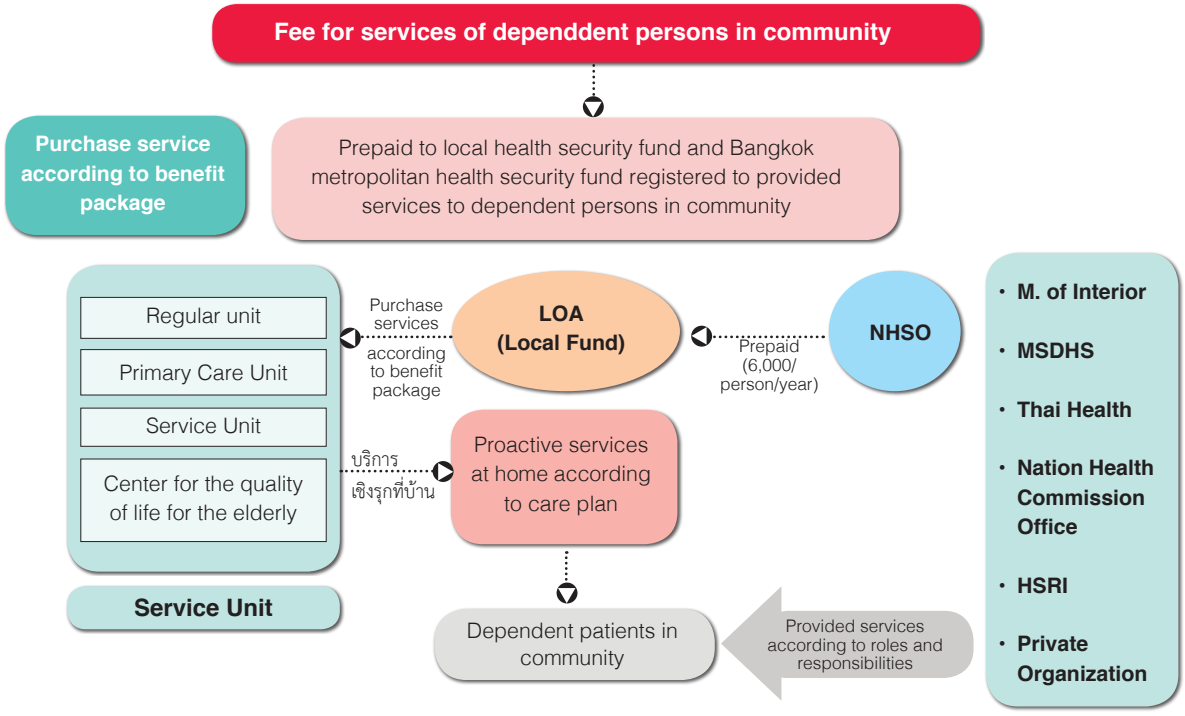
Source: Fund Management Unit, NHSO, data as of September 30th, 2021. Analyzed as of October 14th, 2021.

Note: 10,341 patients had been continuously monitored in the community as per their individual care plan of the registered 11,825

6.2.6 Long term care for dependent persons in community

The budget dispersed for long term care for dependent persons in community is excluded from the capitation payment and in the fiscal year of 2021, a total of 838.026 million baht was earmarked for such services for citizens of all schemes. The goal for such care is for the dependent elderly (whose evaluation according to the Barthel ADL in regards to daily life performances is 11) to enjoy long term care at home or within the community made possible through the cooperation between all sectors namely households, communities, service units/ service centers/ elderly development centers in integration with the LAOs (Figure 2-41).

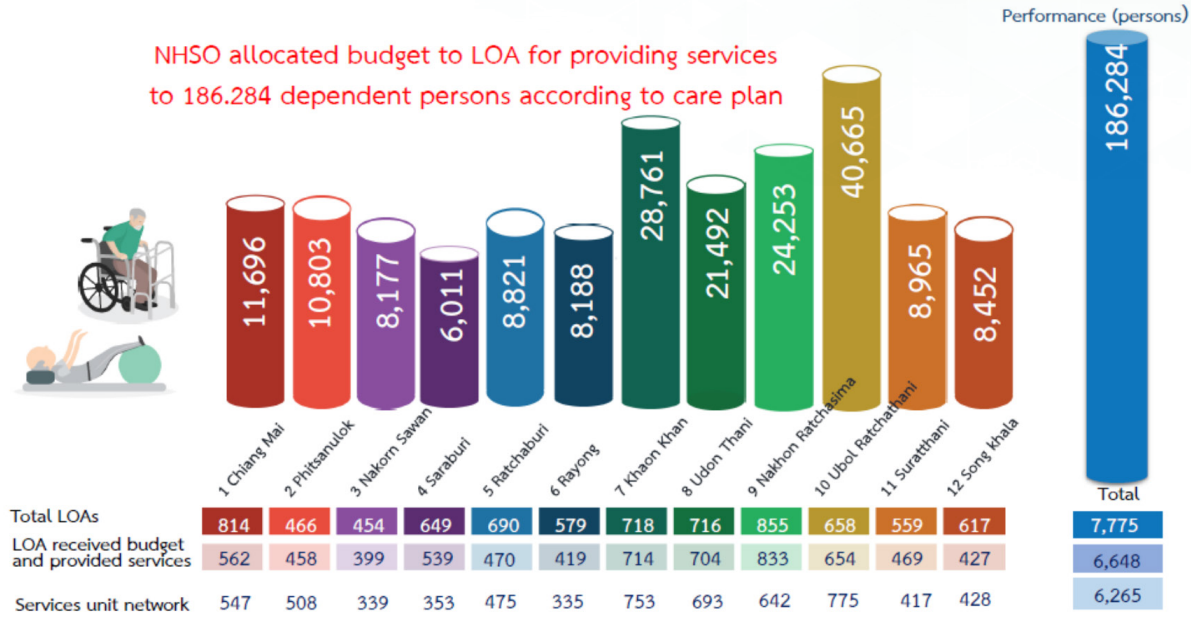
Figure 2-41 Long term care for dependent persons in community in the Fiscal Year 2021



For the 2021 fiscal year, the NHSO had financially sponsored the 6,648 Long Term Care centers (LTC) from the local National health security fund assigned for the total 7,740 LTCs, or 85.89 percent, and 6,265 local service centers (contract units, primary care, community health centers, elderly health development centers) had provided care plan to 186,284 dependent elderlies from all schemes, of all ages and individual care plans.

Of the 96,295 dependent elderly who had been ADL evaluated, 95,619 (99.30 percent) had been cared for over 9 months; 23.50 had better ADL as per the target of the working capital indicator of not lower than 20 percent while those with the same ADL was at 56.48 percent and those with a lower ADL was at 20.02 percent (Figure 2-42) (Appendix Table 5-14)

Figure 2-42 Long Term Care for dependent persons under all schemes in community classified by Health region in the Fiscal Year 2021



Source: Community Care Commissioning Cluster, NHSO, data as of September 30th 2021. Analyzed as of October 18th 2021

6.2.7 Primary Health Care

The 2021 fiscal year has assigned 268.64 million baht for the development of primary health care with family physicians in correct proportion to care for population to accomplish the vision of providing citizens with access to both community and service centers; the family physicians and team will cater to the outpatient as a family doctor. The forecasted target for outpatient family doctor visits was 2,680,000 times, however, the actual visits were 2,928,676 times, or 109.28 percent.

(1) Family physician services in Primary Care clusters (PCC): Bangkok (NHSO Health Region 13) has family physicians for primary care clusters that have passed the registration criteria but for the health region out of Bangkok (Health Regions 1-12), there has been a revision of registration criteria and the establishment of family clinics of which the assessment and registration is conducted under the supervision of the Office of the Primary Care Cluster, Ministry of Public Health, for the 2021 year.

1) **In Bangkok,** 33,468 visits had been catered to within the service units or domiciles-visits of which 2,726 were made by the medical unit, 30,742 by the dental unit and 1,992 by the pharmacies.

2) **In Health Region 1-12,** 2,396,678 visits had been catered to within the service units or domiciles-visits; each visit was tabulated in consistency with the PCC quality assessment criteria for the disbursement of service fee as per the quality serviced. (Source : Primary care clusters group and health promotion and disease prevention group; information as on 30th June, 2021, analyzed on 7th September, 2021)

(2) Management of services to decrease congestion within the UC service centers

In order to adhere to the implementation of the New normal lifestyle and to support the Social distancing policy, the NHSO with its affiliates including networks had adjusted their service operations to increase efficiency in healthcare, decrease congestion within hospitals, shorten waiting queue, decrease travelling expenses to hospitals including the risk of contracting COVID-19 through:

1) **Medication pick-up at drugstore near home** *As per the policy of the Minister of Public Health* regarding the decrease of congestion whilst waiting for drugs within the hospitals, patients suffering from diabetes, hypertension, asthma and psychiatric could voluntarily receive their medication from pharmacies must be the same medication that they would have received from the hospital. The service was conducted free of charge and in three models: 1. The hospital would have arranged medication for each and delivered to the drugstore, 2. The hospital had already prepared a set of medication for the patient, and 3. The pharmacies would arrange the medication.

   For the 2021 fiscal year, 141 hospitals (56 General hospital, 33 regional hospitals, 20 community hospitals, 15 psychiatric affiliated hospitals, 8 Bangkok medical service department's hospitals, 5 Department of medical service's hospitals, and 4 university hospitals) had participated of which 103 hospitals had opted for the first model, 21 had opted for the second model while 17 opted for the third model. 1,125 pharmacies had joined the program and *76,836 visits to the pharmacies had been made 28,673 patients* (Source: prescription drug dispensing database, NHSO monitoring and evaluation group, as of September 30th , 2021, and analyzed of October 6th , 2021).

2) **Drug delivery/ postal medicine** In operation since April, 2021, the NHSO with the Thailand Post Company Limited (THP) inc collaboration with the UC's MoPH-affiliated units including medical schools had learned that 287 hospitals had participate in the postal delivery of patients' medication (the NHSO was liable for the postage fee of 50 baht / package). In 2021, the number of patients that received postal medication was 247,283 at 326,451 times (Source: E-Claim Review and Monitoring Web Report, NHSO Fund service, as of September 30th , 2021, analyzed of December 12th , 2021).

3) **Telehealth/Telemedicine** was initiated in 2021 as per the standards depicted by the council, or the Ministry of Public Health, for old patients whose conditions are stable and controllable. A total of 35 hospitals (15 in Bangkok) had joined the program and 47,019 outpatients had utilized the service 73,338 times (Source: E-Claim Review and Monitoring Web Report, NHSO Fund service, as of September 30th , 2021).

4) **Out-of-service-units laboratory testing services:** also pioneered in 2021 for ease and reduction in waiting time during blood tests visits including to decrease over-crowdedness in hospitals and to also support the telehealth/telemedicine program, laboratory tests were conducted out of service units for old, chronic patients; the expenses were liable by the NHSO at 80 baht per time and 28 hospitals had participated. Citizen could receive blood tests and send samples for testing at out-of-service-units laboratories that had passed the quality inspection and had been registered with the Department of Medical Science, Ministry of Public Health (https://sites.google.com/view/stdbloodsample/home). A total of 20,347 tests were completed for 16,829 individuals while samples were sent to 15 host service units. (Source: NHSO Fund management as of September 30th , 2021)

5) **Physical Therapy service** had begun in 2021 in 27 therapeutic clinics that had registered as joint units and 114 individuals had elicited 1,146 therapies within 10 therapeutic clinics (Source: NHSO Fund management as of September 30th , 2021).

6) **Nursing and Midwifery services** initiated in 2021 and 28 nursing and midwifery clinics had passed the assessment to be registered a joint units allowing provision of services namely basic nursing services as per individual care plan, health services for patients at home, administering medication according to treatment plan such as inserting urinary catheters, gastric catheters, injections, and wound dressing/ suturing. 20 patients had utilized such services 412 times in 2 nursing and midwifery clinics (Source: NHSO Fund management as of September 30th , 2021).

6.2.8 Compensation for Remote and Hardship Areas and Southern Border Provinces

The NHSO had sponsored the expenses for 169 service units in remote and hardship areas including the Southern border provinces at an amount of 1,490.288 million baht of which the criteria payment for 163 service units in remote and hardship areas was at 866.013 million baht and the second criteria being 44 service units in the Southern province at 624.275 million baht while 38 service units received payments from both criteria (Table 2-26).

Table 2-26 Remote and hardship areas and Southern border provinces that received compensation to improve efficiency classified by Health region in the Fiscal Year 2021

Unit: units

Health Region	Remote/ Hardship regions	Southern border provinces	Health Region	Remote/ Hardship regions	Southern border provinces
Region 1	31		Region 8	18	
Region 2	11		Region 9	10	
Region 3	3		Region 10	15	
Region 4	0		Region 11	16	
Region 5	5		Region 12	40	44
Region 6	9		**Total**	**169**	**44**
Region 7	5				

Source: Fund Management Unit, NHSO, data as of September 30th, 2021.

7

Premium Care Policy for UC Scheme, enhancing four healthcare services under the Universal Coverage Scheme

The Universal Coverage Scheme's committee approval of the "Upgrade 4 services under Gold Card to New Era of Health Security" to increase efficiency and access for citizens to UC (Gold Card) as of October 5th , 2020, comprises of 4 services:

1. UCS members in Bangkok can receive services from family doctors in any primary care facilities under the Gold Card system: initially, each UC beneficiary were only able to receive care in their designated area, but now each beneficiary can receive treatment in any primary unit at any designated area. In order to sustain such addition, the Ministry of Public Health and Bangkok had enlarged the number of primary care units made possible through the database application providing information on family doctors and additional patients including self-validation through one's identification number. The project was pioneered in Bangkok and NHSO Health Region 9, Nakhorn Ratchasima.

2. No referrals needed for benefits validation: formerly, Gold Card inpatients would need referral forms in case expiration and relatives would need to

travel to their contracted unit to get a new form, thus, having shoulder additional travelling costs, particularly, for patients who have to cross state lines. The new system allows each beneficiary to continuously be treated as per the diagnosis of the physician; all a beneficiary would require is their identification card. The project was piloted in Health Region 9 on November 1st, 2020, and January 1st, 2021, in Bangkok and Metropolis.

3. Cancer Anywhere: cancer is an illness that requires immediate care to control cancer development stage and spread of the disease but complicated referral processes and high volume and diversity of patients in each hospital are obstacles to access and thus, immediate treatment. The new system will allow patients to achieve care faster and more conveniently. Each patient diagnosed with cancer will receive a medical certificate and history, or Code, to apply for care through the NHSO 1330 Contact Center, NHSO application, or directly contact units capable of such treatments without the need of referral forms. Telehealth, tephramancy and home chemotherapy have been added under the partnership with Department of Medical Services, who had created database ready for usage on January 1st , 2021.

4. UCS members can change their registered hospitals instantly, as opposed to waiting 15 days: before patients would need to wait the mandatory 15 days, or the 28th of every month, which proved to be an obstacle to receiving care. The new system will instantly provide information to the new unit a patient desires to receive care and can do so after registering their desired unit through NHSO application on mobile devices, or a computer, with validation through their identity card (smart card). The project was pioneered on January 1st , 2021.

Performances of the Premium Care policy for UC patients

As per the NHSO's board approval of the Upgrade UC policy on the 5th October, 2020, specifically for 4 services, it has been learnt that services provided to citizens were more efficient.

1. UCS members can receive services from family doctors in any primary care facilities under the Gold Card system as enacted by the "30 Baht Anywhere" policy: the project was piloted in NHSO's Health Region 13 Bangkok and NHSO's Health Regions 7-10 of the northeastern region. Each beneficiary could registered themselves through the NHSO application using their identification card (Smart Card) for citizens to be treated anywhere and anytime at any primary care unit. From the 1st of January to 30th September, 2021, a total of 950,176 visits were made to 436 units (907,273 visits were made to 250 units in Bangkok and 42,903 times in 186 units in Health Regions 7-10).

2. Patients do not need a referral form: initially, inpatients would need to renew their referral forms every three months until end of treatment, however, such policy had imposed financial hardships and inconvenience to the beneficiaries. To remove such obstacles, the NHSO had adjusted its system to allow inpatients to continuously be treated as per the physician's diagnosis without the need for referral form but would only require the inpatient's identity card. The hospital will handle the system including the referral form including the inpatient's history. The change was pioneered in Health Region 9 Nakhorn Ratchasima as of November 1st, 2020, and Health Region 13 Bangkok as of January 1st, 2021, with a total of 400,451 applications, or 59.36 percent (191,342 provincial units, 7,507 cross-provincial units but within the Health Region, and 201,602 cross Health Region)

3. Cancer Anywhere: as aforementioned, the various Gold Card referral processes may be an obstacle preventing cancer patients from being treated immediately. Therefore, the NHSO had adjusted its system providing cancer-diagnosed patients with a certificate, or Code, to apply for care though three channels, 1. the NHSO 1330 Contact Center, 2. NHSO application, and 3. Directly contact units with capability to treat. The services provided will be as the cancer treatment protocol, telehealth/telemedicine and home chemotherapy, and said-policy went into effect on 1st January, 2021. 1,270,651 cancer patients had received care of which 846,072 were outpatients, 16.52 percent was cross-Health Region service and 424,579 were inpatients and 6.15 percent cross-Health Region service.

4. Immediate change of unit without the former 15-days wait: initially, every change of unit required a 15 days wait, or would occur only on the 28th of every month, preventing patients from receiving care in their domiciles. Currently, the NHSO had developed a registration on its mobile application, or on computer devices, for citizens to self-change their units and to receive such benefit within the day (beneficiaries can change only up to 4 times per year). The project was executed on 1st January, 2021, and 1,291,073 UC beneficiaries had changed their units (86.48 percent through their regular unit and 13.52 percent through Mobile application and LINE) and 264,636 had utilized their benefit a day after applying for transfer of unit (20.50 percent).

However, executing these policies are just a small start to the expansion of benefits and access for citizens to UC. Such developments were made possible through the collaboration between providers, MoPH, Bangkok and the private sector. This has been the intention of the Universal Coverage Scheme office to equally, fairly and equitably develop and improve inpatients' welfare under the declaration, "All inpatients should receive care as per required" supporting the Gold Card's policy of "Paperless Referral for Inpatients" in 2022.

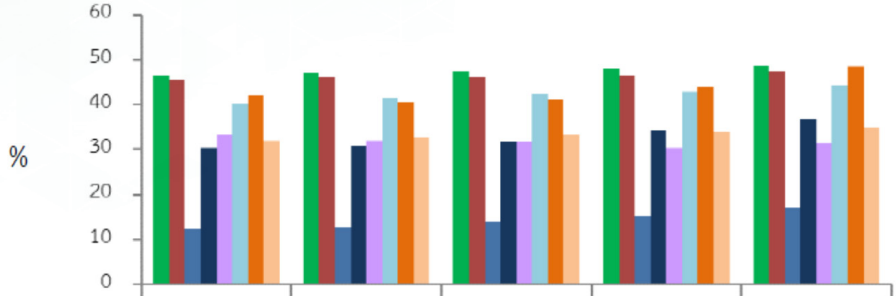
8 Effectiveness and Quality of care

1) Caesarean section

The World Health Organization (WHO) promotes natural delivery due its lower loss of blood, faster recovery and faster return to normalcy, and had set the rate of caesarean section at 15 percent while natural deliveries to be 80-90 percent.

In the 2021 fiscal year, there was a general increase in UC's caesarean section at 35 percent, an increase form 2020's 33.85 percent while the provider with the highest caesarean section performed at regional hospital (48.60 percent) followed by private hospitals (48.31 percent), provincial hospitals (47.52 percent) and medical schools (44.32 percent) (Figure 2-43).

Figure 2-43 Percentage of delivery with the cesarean section under the UC scheme classified by level of healthcare units and hospital type in the Fiscal Year 2017-2021



	2017	2018	2019	2020	2021
Regional hospital	46.33	47.26	47.43	47.97	48.60
Provincial hospital	45.44	46.04	46.16	46.45	47.52
District hospital	12.31	12.91	14.06	15.00	16.99
MoPH hospital	30.29	30.78	31.68	34.11	36.59
Non - MoPH hospital	33.48	31.92	31.72	30.43	31.50
Medical school	40.40	41.52	42.28	42.74	44.32
Private hospital	41.97	40.41	40.96	43.94	48.31
Total	31.90	32.68	33.41	33.85	35.04

Source: Data IP services from IP E-claim, as of September 30th, 2021. Analyzed by Monitoring and Evaluation Cluster, NHSO, as of January 24th, 2022

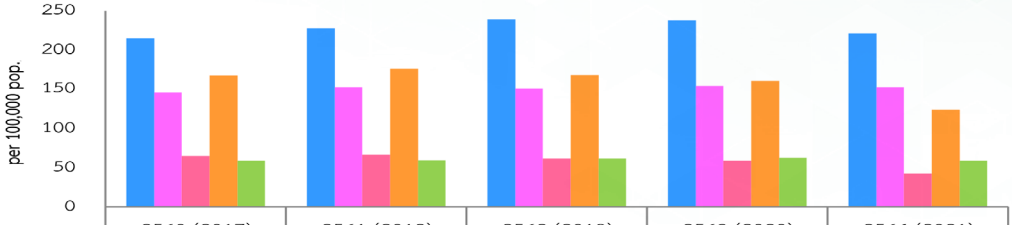
Note: Data analysis was based on hospital level in the FY 2019 and through retrospective data processing

2) Ambulatory Care Sensitivity Condition: ACSC

ACSC are conditions where admissions/ unnecessary hospitalizations may have been prevented by proper primary care interventions. The uncomplicated cases that must receive care are diabetes mellitus, high blood pressure, asthma, chronic obstructive pulmonary diseases (COPD) and epilepsy. The 2021 had seen a decrease in admissions of all 5 diseases amongst 100,000 UC beneficiaries particularly, asthma and COPD. This was possibly due to patients receiving the correct medication specifically, increased prescriptions of steroidal inhaler and from the COVID-19 pandemic that had enforced mask-wearing and social distancing decreasing airway infection, factor that decreased symptoms (Figure 2-44).

Referred from: 73.54 asthma patients in 2021 were prescribed with inhale corticosteroid, an increase from 65.64 percent in 2019 (Source: Health Data Center, Ministry of Public Health, Service Plan standard and information division, RDU branch; data as on 16th February, 2022).

Figure 2-44 Admission rate per 100,000 population of Ambulatory Care Sensitivity Condition: ACSC patients in the Fiscal Year 2017-2021



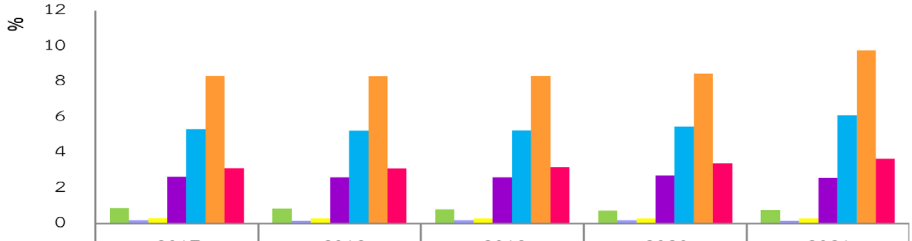
	2560 (2017)	2561 (2018)	2562 (2019)	2563 (2020)	2564 (2021)
DM	215.19	227.98	239.20	238.08	221.57
HT	145.68	152.51	150.96	154.26	152.53
Asthma	64.76	66.08	61.60	58.57	42.14
COPD	167.63	176.39	167.97	160.49	124.07
Epilepsy	58.81	59.55	61.64	62.34	58.87

Source: 1. *NHSO Health Service Indicator Report (H0301), Bureau of Information and Technology, data as of September 30th, 2021. Analyzed by Bureau of Health Information and Outcome Evaluation, NHSO, as of January 2022*
2. *Data IP services from IP E-claim as of September 30th, 2021. Analyzed by Monitoring and Evaluation Cluster, NHSO, as of December 28th, 2021.*

3) Inpatient Mortality Rate

Inpatient Mortality Rate is an index that reflects healthcare services, healthcare management and surveillance and it has been learnt that UC inpatients have slightly increased, particularly, the elder but had decreased in neonates (Figure 2-45).

Figure 2-45 Mortality Rate of UCS Inpatients classified by age groups in the Fiscal Year 2017-2021



	2017	2018	2019	2020	2021
less than 1 year	0.89	0.85	0.80	0.74	0.76
1-4 years	0.19	0.17	0.18	0.18	0.17
5-14 years	0.31	0.29	0.28	0.28	0.28
15-59 years	2.63	2.61	2.61	2.71	2.57
60-69 years	5.34	5.24	5.27	5.48	6.09
more than 70 years	8.33	8.30	8.32	8.45	9.76
Total	3.12	3.11	3.17	3.40	3.66

Source: *IP services from IP E-claim, data as of September 30th, 2021. Analyzed by Monitoring and Evaluation Cluster, NHSO, as of January 2022*

Notes: 1. *Excluding Well Baby delivered in hospitals (Code Z380)*
2. *Data analysis was based on hospital level in the FY 2019 and through retrospective data processing*

9

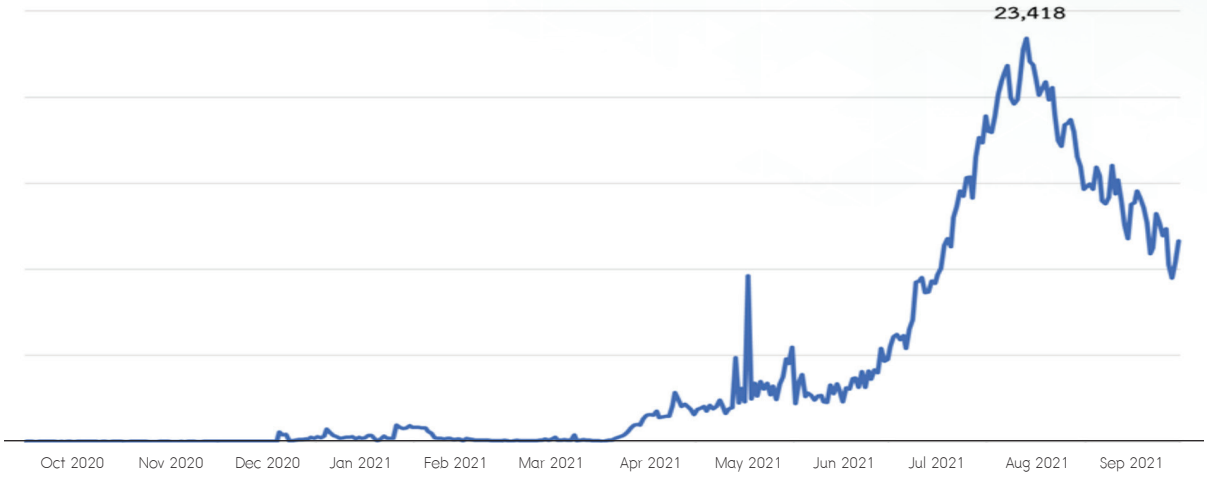
Health Financing for COVID-19 Health Service under Universal Coverage Scheme, Fiscal Year 2021

9.1 Situation of COVID-19

Thailand is still facing the COVID-19 crisis since the first patient in Thailand from China on 12th January, 2020. By 2021, COVID-19 had spread to almost every country, specifically, the delta strain that had spread since April 2021, and by July, 2021, the number of cases had multiplied rapidly leading to the highest record in August 2021. However, with te execution of preventive measure, the number of cases started to decrease in September, 2021.

Even though the COVID-19 crisis was severe in Thailand, the country's strong public healthcare and its Universal Coverage Scheme had resulted in a mortality of 325 per one million population, or ranked 135th in the world, when compared to the USA, where the mortality rate was 2,841 individuals per one million population and 18th in the world. (Figure 2-46).

Figure 2-46 Number of Daily New COVID-19 Cases in the Fiscal Year 2021



Source: Interactive COVID-19 dashboard, Department of Disease Control, MOPH <https://ddc.moph.go.th/covid19-tdashboard/?dashboard=main>

9.2 Benefit packages for COVID-19 Health Services

As a response mechanism to the COVID-19 pandemic, the National Health Security Office's committee had defined benefits under the Green Channel review process executed under the requirement of a health emergency such as a pandemic with efficacy results, guidelines, a ready system, not a liability to the budget, not violating any ethical standards. In this regard, the National Health Security Office has established rules and procedures for claiming expenses for cases of COVID-19 in the NHSO's 2021 fiscal year (Figure 2-47).

Figure 2-47 Timeline of Budget approval and Introduced Benefit Packages for COVID-19 Health Services to the UC scheme in the Fiscal Year 2021

23rd March, 2021

1. Screening and laboratory tests for COVID-19 confirmation covering all Thai citizens
2. COVID-19 treatment for UC beneficiaries in cases of:
   1) Covered costs of laboratory testing for COVID-19
   2) Covered costs for COVID-19 medications for patients
   3) Covered costs for Control room and food
   4) Covered costs for Personal Protection Equipment (PPE), or other equipment to prevent spread of the infection
   5) Covered costs for patients' transportation

23rd April, 2021

1. Extension of referral letter's validity for both inpatients and outpatients from the original referral letter with validity till end of 2021 fiscal year
2. Distribution of medicine and utilities by post to patients; expenses of these medicines and utilities can be claimed from the NHSO as per its conditions
3. In cases where a beneficiary received treatment in other contracted unit but within the same province as the beneficiary's contracted unit, expenses could be claimed as per the conditions of the province
4. In cases where a beneficiary received treatment in another contracted unit but out of the beneficiary's contracted unit's province, expenses can be claimed for accidents/ emergency from the NHSO in accordance with the Point System's pricing, or at the price set by the NHSO

2nd July, 2021

Expenses of patients' transportation services can be claimed as per the public healthcare payment guidelines. In cases of vehicular expenses, the disbursement will be conditioned upon the to and from distance by the Department of Highways and payments will be disbursed as calculated but no higher than as follows:

1) Distances of no higher than 50 kilometers paid at no higher than 500 baht
2) Distances higher than 50 kilometers paid starting at 500 baht and 4 baht extra per kilometer
3) Personal Protective Equipment (PPE) including disinfecting vehicles at 3,700 baht per time a patient has been transported

9th July, 2021

1. COVID-19 vaccinations (for all Thai citizens) at a flat rate of 40 baht per time and no more than 2 times per person
2. Public healthcare services expenses for side effects from COVID-19 vaccinations for all UC beneficiaries
3. Expenses of green chiretta extracts and medicine from green chiretta powder for COVID-19 UC beneficiaries with mild symptoms and can be claimed at no more than 300 baht per treatment for both inpatients and outpatients

23rd August, 2021

Pay rate adjusted for home isolation and community isolation

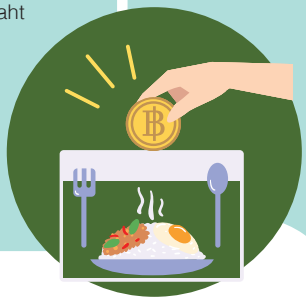
1. Adjusted patient-care costs for monitoring, evaluation, and counseling for basic medications at a flat rate of 600 baht per day (excluding 3 meals) for no more than 14 days
2. Adjusted patient-care costs for monitoring, evaluation, and counseling for basic medications including 3 meals at a flat rate of 1,000 baht per day for no more than 14 days

Budgeted Time

- January - June 2564
- June - September 2564

3rd May, 2021

Subsidized expenses for services provided by caregivers to high-risk groups and is eligible for all Thai citizens; the services include 3 meals at no higher than 1,500 baht per day for 14 days

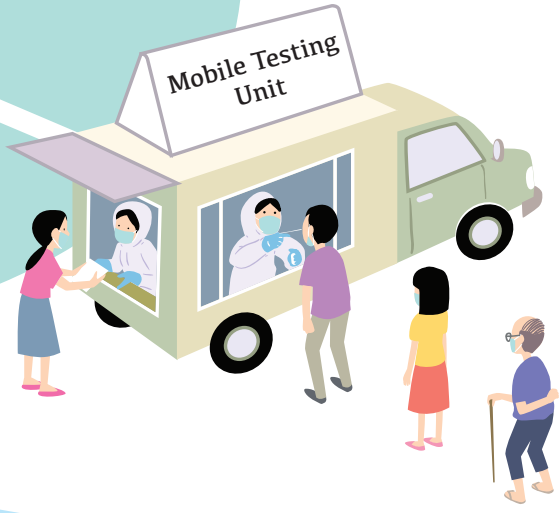


6th May, 2021

1. Preemptive screening out of public, private and other service units
2. Screenings inside public, private and other service units: and specimen collection fees

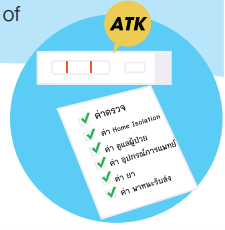
28th June, 2021

1. COVID-19 laboratory diagnosis by RT-PCR of nasopharyngeal and throat swab sample
2. Expenses of home isolation for COVID-19 patients, or expenses for community isolation patients, including 3 meals per day, consultation and monitoring of illness can be claimed at a flat rate of 1,000 baht per day for no more than 14 days
3. Expenses covering medical supplies for each patient in order to be monitored and prevent further spread:



11th July, 2021

1. Antigen Test Kit reimbursed with cash or as Vender Managed Inventory of the Governmental Pharmaceutical Organization when equipment could be supplied but in cases where supplies couldn't be made, the NHSO had reimbursed
2. Expenses for outpatient home isolation and community isolation consisted of



22nd July, 2021

Expenses for close-contact individuals caring for patients includes 3 meals and paid per the actual costs of no more than 1,000 baht for no more than 14 days

1) Patient Transportation services utilizing large vehicles with over 20 seating and paid according to the to and from distance by the Department of Highways
2) To and from distance of over 100 kilometers was paid starting at 5,000 baht and 10 baht extra per kilometer
3) For Personal Protective Equipment (PPE) including disinfecting vehicles paid at no higher than 3,700 baht per time

6th August, 2021

1. Expenses for oxygen required by patients in home isolation or community isolated paid n the actual amount of usage at no more than 450 baht per day
2. Expenses for coroners handling the bodies of dead COVID-19 patients paid at 2,500 baht per death
3. Expenses for inpatients' room and food from 1st August, 2021:
4. Personal protective equipment (PPE), or other expenses related to processes or equipment needed to prevent further spread amongst inpatients from 1st August, 2021:

Budgeted Time	Benefit Period	Benefits
January-June 2021	23rd March, 2021	1. Screening and laboratory tests for COVID-19 confirmation covering all Thai citizens 2. COVID-19 treatment for UC beneficiaries in cases of: 1) Covered costs of laboratory testing for COVID-19 2) Covered costs for COVID-19 medications for patients 3) Covered costs for Control room and food 4) Covered costs for Personal Protection Equipment (PPE), or other equipment to prevent spread of the infection 5) Covered costs for patients' transportation
	23rd April, 2021	1. Extension of referral letter's validity for both inpatients and outpatients from the original referral letter with validity till end of 2021 fiscal year 2. Distribution of medicine and utilities by post to patients; expenses of these medicines and utilities can be claimed from the NHSO as per its conditions 3. In cases where a beneficiary received treatment in other contracted unit but within the same province as the beneficiary's contracted unit, expenses could be claimed as per the conditions of the province 4. In cases where a beneficiary received treatment in another contracted unit but out of the beneficiary's contracted unit's province, expenses can be claimed for accidents/ emergency from the NHSO in accordance with the Point System's pricing, or at the price set by the NHSO
	3rd May, 2021	Subsidized expenses for services provided by caregivers to high-risk groups and is eligible for all Thai citizens; the services include 3 meals at no higher than 1,500 baht per day for 14 days
	6th May, 2021	1. Preemptive screening out of public, private and other service units 1.1 Antigen test using Chromatography for COVID-19 diagnosis at no higher than 450 baht per time covering laboratory expenses and specimen collection fees 1.2 Antigen test using Fluorescent Immunoassay (FIA) for COVID-19 diagnosis at no higher than 550 baht per time covering laboratory expenses and specimen collection fees 2. Screenings inside public, private and other service units: 2.1 Antigen test using Chromatography for COVID-19 diagnosis at no higher than 600 baht per time covering laboratory expenses and specimen collection fees 2.2 Antigen Test using Fluorescent Immunoassay (FIA) for COVID-19 diagnosis at no higher than 700 baht per time covering laboratory expenses and specimen collection fees In cases where an emergency patient requires immediate treatment, Antigen test can be done by RT-PCR, based on a physician's discretion, at no higher than 500 baht per time
	28th June, 2021	1. COVID-19 laboratory diagnosis by RT-PCR of nasopharyngeal and throat swab sample 1) Expenses of laboratory testing of COVID-19 can be claimed at no higher than 1,600 baht per time 2) Other expenses relevant to laboratory testing to confirm COVID-19 diagnosis can be claimed at a fixed fee of 600 baht per time 3) Expenses of specimen collection at a fixed fee of 100 baht per time 2. Expenses of home isolation for COVID-19 patients, or expenses for community isolation patients, including 3 meals per day, consultation and monitoring of illness can be claimed at a flat rate of 1,000 baht per day for no more than 14 days 3. Expenses covering medical supplies for each patient in order to be monitored and prevent further spread: 1) Each patient had received a digital thermometer, an oximeter, and other equipment can be claimed at no higher than 1,100 baht per person based on the equipment actually used, or payments can be made through the Vender Managed Inventory (VMI) of the Governmental Pharmaceutical Organization, when equipment can be supplied 2) Each medical personnel providing services in the Community Isolation had received either a PPE, or expenses covering processes or other equipment; each medical personnel can opt for one expense to be claimed at no higher than 700 baht per person and in regards to such disbursement, the amount is calculated according to the number of medical personnel working per day

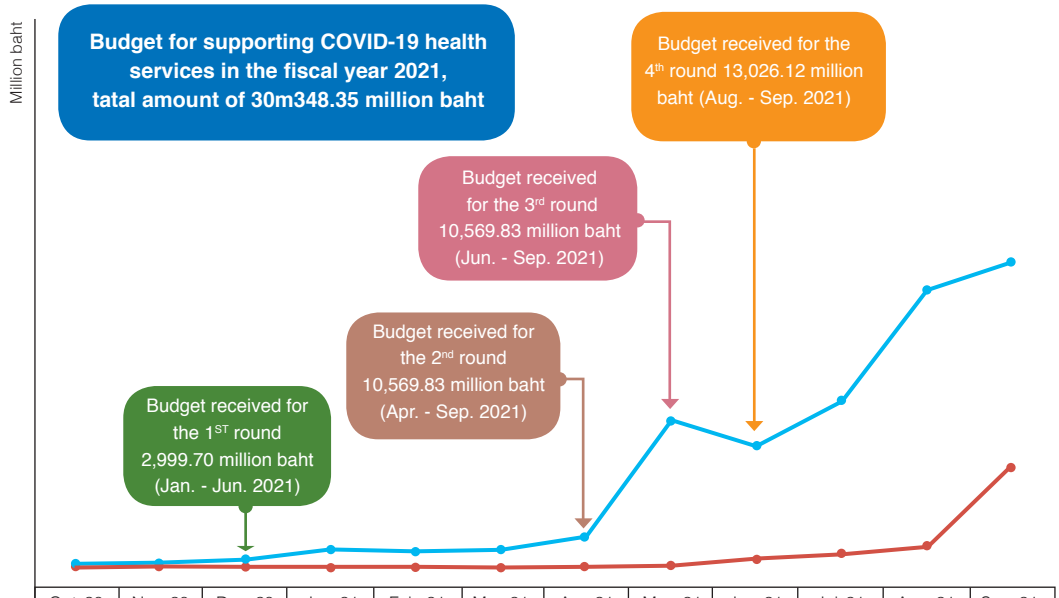
Budgeted Time	Benefit Period	Benefits
June-September, 2021	2nd July, 2021	1. Expenses of patients' transportation services can be claimed as per the public healthcare payment guidelines. In cases of vehicular expenses, the disbursement will be conditioned upon the to and from distance by the Department of Highways and payments will be disbursed as calculated but no higher than as follows: 1) Distances of no higher than 50 kilometers paid at no higher than 500 baht 2) Distances higher than 50 kilometers paid starting at 500 baht and 4 baht extra per kilometer 3) Personal Protective Equipment (PPE) including disinfecting vehicles at 3,700 baht per time a patient has been transported
	9th July, 2021	1. COVID-19 vaccinations (for all Thai citizens) at a flat rate of 40 baht per time and no more than 2 times per person 2. Public healthcare services expenses for side effects from COVID-19 vaccinations for all UC beneficiaries 3. Expenses of green chiretta extracts and medicine from green chiretta powder for COVID-19 UC beneficiaries with mild symptoms and can be claimed at no more than 300 baht per treatment for both inpatients and outpatients
	11th July, 2021	1. Antigen Test Kit reimbursed with cash or as Vender Managed Inventory of the Governmental Pharmaceutical Organization when equipment could be supplied but in cases where supplies couldn't be made, the NHSO had reimbursed as follows: 1) COVID-19 diagnosis using Chromatography including specimen collection at no higher than 450 baht per time 2) COVID-19 diagnosis using Fluorescent Immunoassay (FIA) at no higher than 550 baht per time 2. Expenses for outpatient home isolation and community isolation consisted of: 1) COVID-19 diagnosis by RT-PCR using nasopharyngeal and throat swab sample expenses • COVID-19 laboratory diagnosis at no higher than 1,600 baht per time • Other laboratory services for diagnosis at a flat rate of 600 baht per time • Specimen collection for laboratory testing at a flat rate of 100 baht per time 2) COVID-19 patients care consisting of treatment, medication, 3 meals including valuation and monitoring at a flat rate of 1,000 baht per day for no longer than 14 days 3) Medical supplies for individual patients to be monitored and prevent further spread of diseases 4) COVID-19 medications at no more than 7,200 baht based on actual cost, or reimbursed in the form medicines 5) Transportation services for patients from their homes to service unit and the NHSO will reimburse the service unit receiving the patient followed by disinfecting the vehicle; this is for both within province transfer or out of province transfer 6) As for chest X-ray, the NHSO will reimburse 100 baht per time
	22nd July, 2021	1. Expenses for close-contact individuals caring for patients includes 3 meals and paid per the actual costs of no more than 1,000 baht for no more than 14 days 1) Patient Transportation services utilizing large vehicles with over 20 seating and paid according to the to and from distance by the Department of Highways 2) To and from distance of over 100 kilometers was paid starting at 5,000 baht and 10 baht extra per kilometer 3) For Personal Protective Equipment (PPE) including disinfecting vehicles paid at no higher than 3,700 baht per time

Budgeted Time	Benefit Period	Benefits
	6th August, 2021	1. Expenses for oxygen required by patients in home isolation or community isolated paid in the actual amount of usage at no more than 450 baht per day 2. Expenses for coroners handling the bodies of dead COVID-19 patients paid at 2,500 baht per death 3. Expenses for inpatients' room and food from 1st August, 2021: 1) Room and food for COVID-19 patients with mild symptoms (green) paid as used at no more than 1,500 baht per day 2) Room and food for COVID-19 patients with intermediate symptoms (yellow) paid as used at no more than 3,000 baht per day 3) Room and food for COVID-19 patients with severe symptoms (red) paid as used at no more than 7,500 baht per day 4. Personal protective equipment (PPE), or other expenses related to processes or equipment needed to prevent further spread amongst inpatients from 1st August, 2021: 1) Personal protective equipment (PPE), or other expenses related to processes or equipment, needed to prevent further spread of COVID-19 patients with mild symptoms (green) and paid at no more than 300 baht per day 2) Personal protective equipment (PPE), or other expenses related to processes or equipment, needed to prevent further spread of COVID-19 patients with intermediate symptoms (yellow) and paid at no more than 740 baht per equipment, 15 sets per day, or no more than 11,000 baht per day 3) Personal protective equipment (PPE), or other expenses related to processes or equipment, needed to prevent further spread of COVID-19 patients with severe symptoms (red) and paid at no more than 740 baht per equipment, 30 sets per day, or no more than 22,000 baht per day
	23rd August, 2021	Pay rate adjusted for home isolation and community isolation 1. Adjusted patient-care costs for monitoring, evaluation, and counseling for basic medications at a flat rate of 600 baht per day (excluding 3 meals) for no more than 14 days 2. Adjusted patient-care costs for monitoring, evaluation, and counseling for basic medications including 3 meals at a flat rate of 1,000 baht per day for no more than 14 days

9.3 Budget for COVID-19 Health Service in the Fiscal Year 2021

In the 2020-2021 fiscal years, the NHSO had been allocated a total of 33,650.44 million baht for healthcare management of COVID-19 and relevant services of which 2,282.09 million baht (central fund) was from reserved or emergency payment for COVID-19 pandemic in the 2020 fiscal year, 1,020 million baht from the high (low) income account, and another 30,348.35 million baht from the Governmental Loans Act, Rounds 1-4, to resolve, alleviate and revitalize the economy and society suffering from the consequences of COVID_19 (Figure 2-48).

Figure 2-48 The UCs Budget Amount for COVID-19 Health Services in the Fiscal Year 2021



	Oct. 20	Nov. 20	Dec. 20	Jan. 21	Feb. 21	Mar. 21	Apr. 21	May. 21	Jun. 21	Jul. 21	Aug. 21	Sep. 21
Screening&Treating	124.15	61.15	326.82	656.52	636.18	649.77	1,219.89	5,629.70	4,602.67	6,391.28	10,577.53	11,599.11
UCEP	2.42	6.50	7.29	7.51	14.50	15.66	10.62	92.23	329.45	573.73	871.68	3,900.16

Source: Fund Management Unit and Policy Advocacy Unit, NHSO, data as of September 30th, 2021

A total of 54,479.67 baht was issued for COVID-19 public healthcare as reimbursements to service units and related costs of caring for patients and COVID-19 positive individuals including at-risk individuals be screened and those suffering from consequences of COVID-19 from March 1st , 2020, to September 30th, 2021. The payment was allotted as follows:

1. COVID_19 public healthcare consisted of screening at-risks individuals from all schemes, treatment cost for Gold Card members, COVID-19 vaccinations for all schemes, etc.

2. Other relevant services including costs comprises of preliminary financial assistance for beneficiaries suffering from vaccinations' side effects (Table 2-27).

Table 2-27 Actual Budget Categorized by COVID-19 Service Items in UCs Budget, Fiscal Year 2020-2021

Medical services categories	Unit: million baht				Consoli-dates Disburse-ment	Remaining Balance
	Central Budget 2020	Budget from high (low) income account	COVID-19 Gov. Loans Act (Rounds 1-4)	Total		
1. Budget for COVID-19 healthcare management	**2,282.09**	**1,020.00**	**29,337.94**	**32,640.03**	**53,612.01**	**-20,971.99**
- Infection Prevention fee (for all Thai citizens)	1,810.77	548.58	14,360.80	16,720.15	25,876.68	-9,156.53
- Patients treatment costs	471.31	471.42	13,417.85	14,360.58	26,756.49	-12,395.91
- COVID-19 vaccinations (for all Thai citizens)	0.00	0.00	1,520.00	1,520.00	971.87	548.13
- COVID-19 vaccinations' side effects	0.00	0.00	30.01	30.01	6.98	23.04
- VITT diagnosis and treatment	0.00	0.00	9.28	9.28	0.00	9.28
2. Other related services	**0.00**	**0.00**	**1,010.41**	**1,010.41**	**867.66**	**142.75**
- Influenza vaccinations	0.00	0.00	317.61	317.61	262.27	55.34
- Preliminary financial assistance to beneficiaries suffering from COVID-19 treatment damages	0.00	0.00	106.40	106.40	2.93	103.47
- Preliminary financial assistance to beneficiaries suffering from COVID-19 vaccinations	0.00	0.00	220.40	220.40	236.51	-16.11
- Capitation payment (from unemployment)	0.00	0.00	366.00	366.00	365.94	0.06
Total	**2,282.09**	**1,020.00**	**30,348.35**	**33,650.44**	**54,479.67**	**-20,829.23**

Source: Fund Management Unit and Policy Advocacy Unit, NHSO. Data as of March 1st , 2020 - September 30th, 2021

However, from May to July, the number of COVID-19 infected cases had skyrocketed consequently rendering the budget prepared insufficient to compensate service units. Therefore, the NHSO had request for additional funds from the COVID_19 governmental loans of 20,829 million baht and the motion were approved on November 16th, 2021 and the service units have been compensated

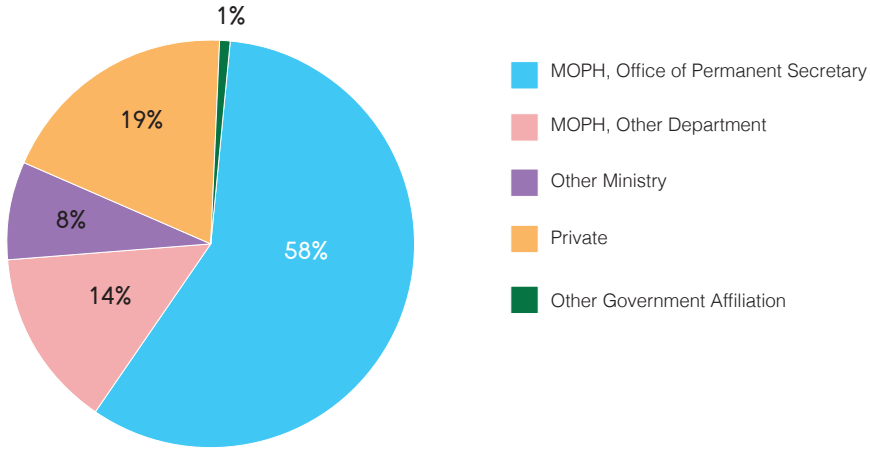
9.4 Outputs Performance

1) COVID-19 Screening

The National Health Security Office had designated benefits and subsidized COVID-19 screenings costs for all at-risk individuals from all public health insurance schemes whilst supervising the screenings, as per the standards of Ministry of Public Health, such as Real-Time Polymerase Chain Reaction, Antigen Test Kit (ATK), and other tests such as Pool saliva, antibody test.

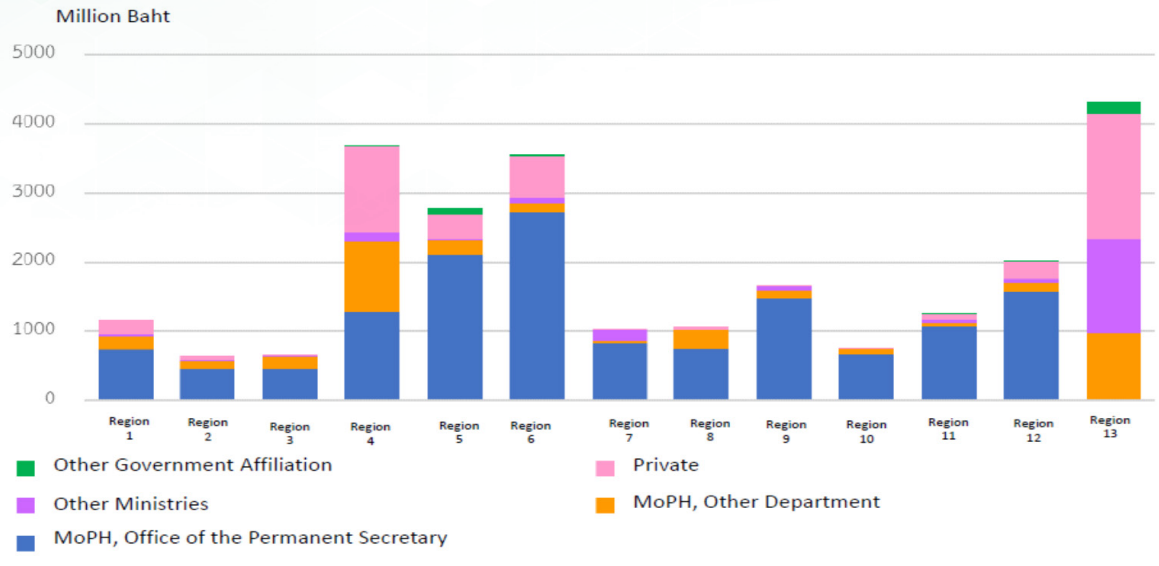
From 1st March, 2020, till 30th September, 2021, a total of 12.087 million citizens from all public healthcare schemes had been screened 13.537 million times amounting to a cost of 25,876.68 million baht. The governmental unit that had shouldered the COVID-19 screening cost was the Office of the Permanent Secretary, Ministry of Public Health, at 58 percent of the total cost. Other agencies that had shouldered the costs were private service sectors and other MoPH affiliated units but non-affiliated with the permanent secretary office at 19 and 14 percent, respectively. In regards to provincial levels, Health Region 13 Bangkok, Health Region 4 Sraburi, Health Region 6 Rayong and Health Region 5 Ratchaburi had conducted screening wand had shouldered the highest costs when compared to other provinces as these areas had the most severe spread of COVID-19 infection (Figures 2-49 and 2-50)

Figure 2-49 COVID-19 Screening Claims classified by Type of Healthcare units in the Fiscal Year 2021



Source: Fund Management Unit, NHSO, data as of September 30th, 2021.
Analyzed by Monitoring and Evaluation Cluster, NHSO, as of October 14th, 2021.

Figure 2-50 Budget Disbursement of COVID-19 Screening classified by Health Region and Type of healthcare units in the Fiscal Year 2021



Source: Fund Management Unit, NHSO, data as of September 30th, 2021.
Analyzed by Monitoring and Evaluation Cluster, NHSO, as of October 14th, 2021

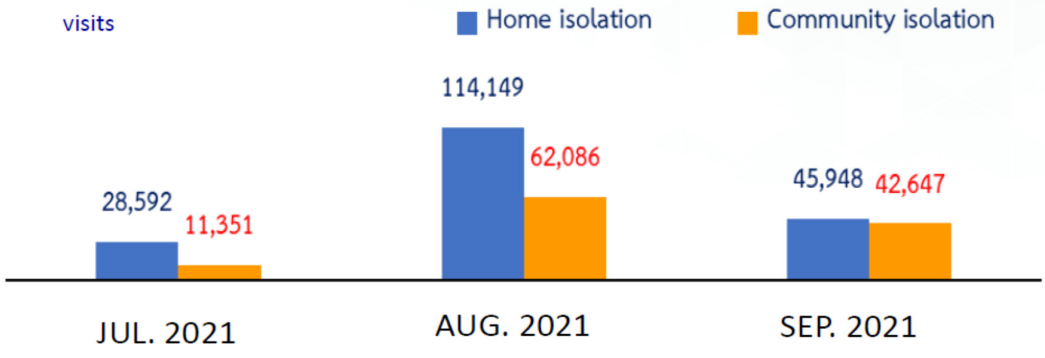
2) Home Isolation and Community Isolation Services, HI/CI

As a result of the new wave of COVID-19 infections in April 2021, there was a high volume of patients exceeding the hospitals' capacity for treatment. Therefore, to alleviate such congestion for non-symptomatic patients, or those with mild symptoms, these patients did not need to visit hospitals for care. The Ministry of Public Health and the NHSO had set guidelines for COVID-19 treatment and benefits of Home isolation (HI) and Community Isolation (CI) for 14 days for all UC beneficiaries in June, 2021.

From the 10th July – 30 September, 2021, there were a total of 303,873 of UC COVID-19 patients visits to HI/CI of which 187,789 was HI while 116,084 was CI while August was the month with the highest stays; the total amount disbursed was 726.996 million baht (Figure 2-51). The governmental agencies responsible for management of HI/CI services were mostly public health units, office of the permanent secretary of the MoPH followed by non-affiliated public units and private sectors.

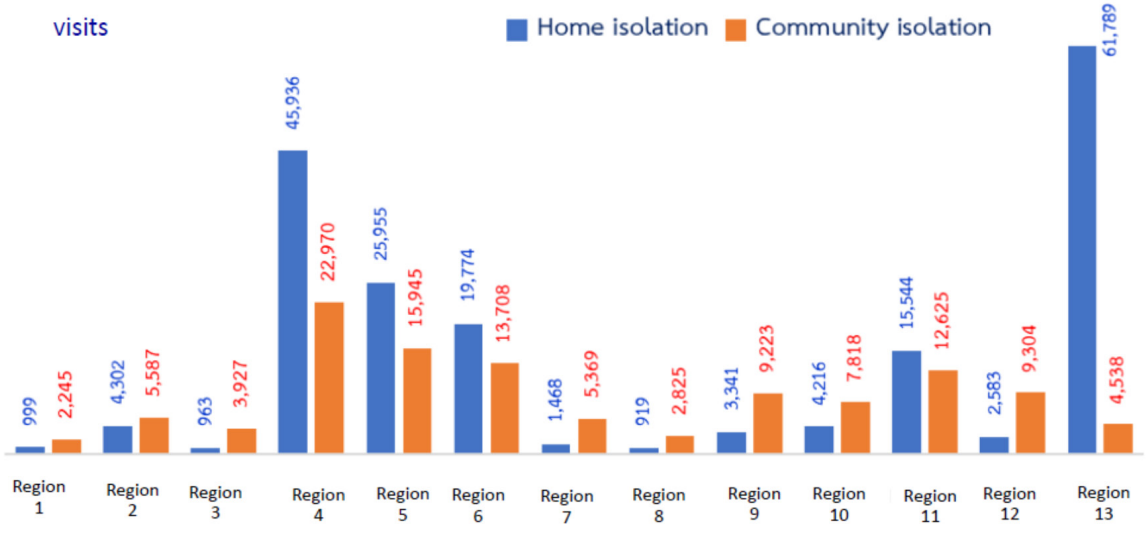
For HI/CI usage, it has been learnt that Area 13 Bangkok, Area 4 Saraburi and Area 5 Ratchaburi had the highest HI visits at 6,789 visits, 45,936 visits, and 25,955 visits, respectively, while Areas 4,5, and 6 had the highest visits to Ci at 22,970, 15,945, and 13,708 visits, respectively (Figure 2-52).

Figure 2-51 Home Isolation and Community Isolation services of COVID-19 patients under UC Scheme, July–September 2021



Source: COVID-19 Integration Dashboard, Monitoring and Evaluation Cluster, NHSO,data as of September 30th, 2021, Analyzed as of December 16th, 2021.

Figure 2-52 Number of Home Isolation and Community Isolation services of COVID-19 patients under UC Scheme classified by Health region, July–September 2021

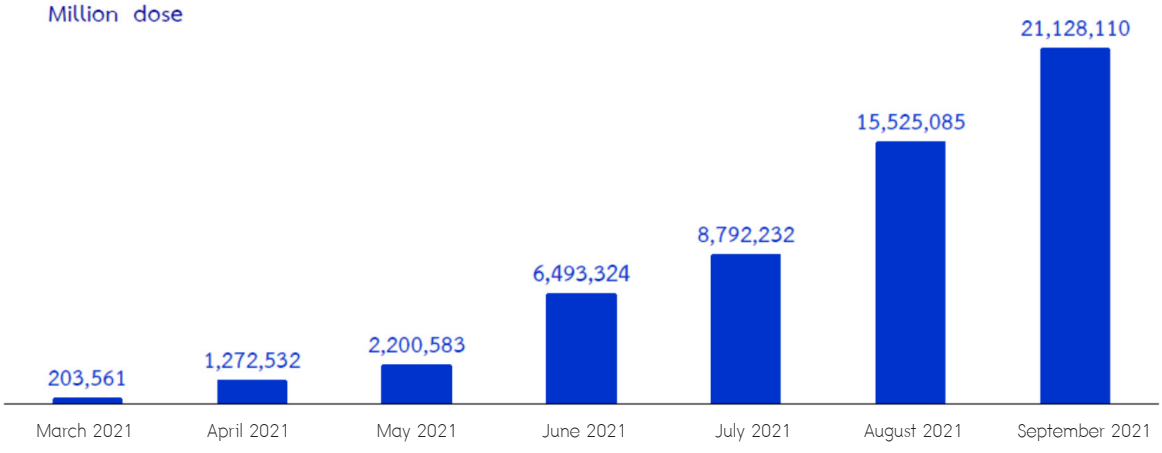


Source: COVID-19 Integration Dashboard, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 16th 2021.

3) COVID-19 Vaccination

The 2021 fiscal year from March 2nd to September 30th, 2021, it has been found that 55.65 doses of COVID-19 vaccinations were administered to citizens of all schemes. Of the total, the 33,574 million doses were the first shot while 20,566 million doses were the second shot, and 1,474 million doses were the third shot amounting to a total of 971.87 million baht (Figure 2-53).

Figure 2-53 Number of COVID-19 Vaccination classified by month, Data on March 2021-September 2021.



Source: COVID-19 Integration Dashboard, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 16th, 2021.

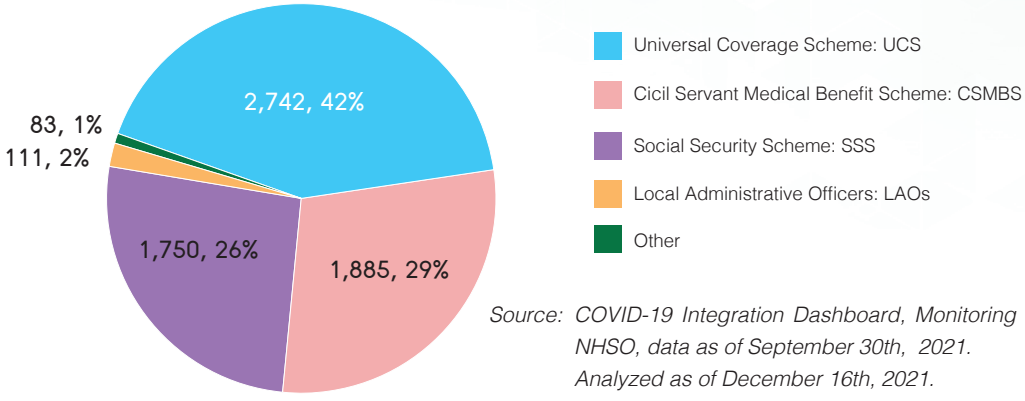
4) Liability Compensation for Patients with injury following COVID-19 Vaccination

Thailand started administrating the COVID-19 vaccinations for its citizens from March, 2021, and to prepare for unforeseen effects, or side effects from vaccinations, the NHSO had earmarked preliminary financial assistance budget for the complications resulting from COVID_19 vaccination from April 2021 for all Thai citizens.

In 2021, there were a total of 6,571 complainants of which 5,187 (78.9 percent) had qualified for preliminary financial assistance. Majority of the complainants were UC beneficiaries, 2,742 individuals (41.7 percent), followed by CMBS and SSS beneficiaries at 1,885 (28.7 percent) and 1,750 individuals (26.6 percent), respectively; most of the complainant were in the 30-39 and 40-49 age groups (Figure 2-54).

When classified by level of damages, it has been learnt that 66.9 percent (2,778 individuals) was mild damages and most severe damages, or deaths or decrepit, at 22.3 (925 individuals) while the preliminary financial assistance for damages incurred from COVID-19 amounted to 367.147 million baht.

Figure 2-54 Number of Petition for COVID-19 Vaccination Injury Compensation classified by schemes in the Fiscal Year 2021

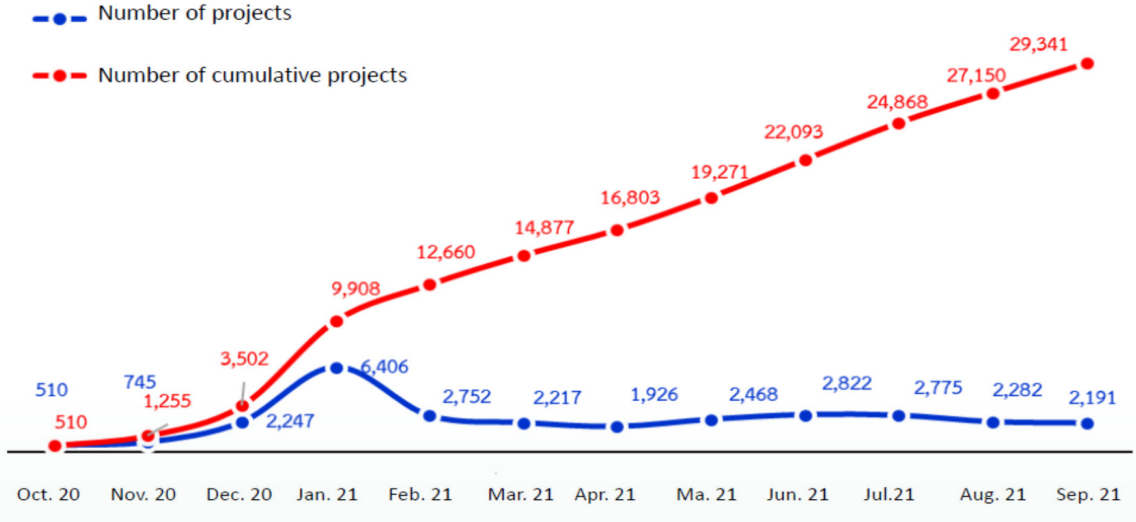


Source: COVID-19 Integration Dashboard, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021.
Analyzed as of December 16th, 2021.

5) COVID-19 Prevention Program by Local Health Security Fund

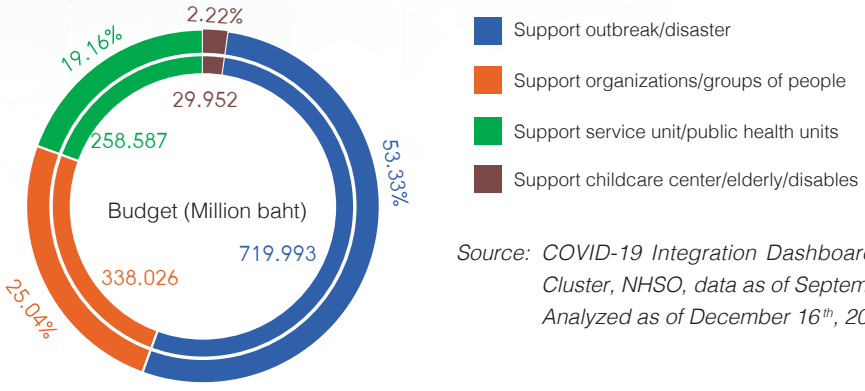
The Local Administrative Organizations (LAOs) is another important governmental agency that had utilized the Local Health Security Fund to prevent further spread of COVID-19. In the 2021 fiscal year, 29,341 projects were executed from the Local Health Security Fund burning a total of 1,349.885 million baht divided into 53.33 percent (719.933 million baht) epidemic/disaster support project, 25.04 percent (338.026 million baht) for organizations/ citizens support for prevention of COVID-19 spread, and 19.16 percent (258.587 million baht) to support service/ public healthcare units (Figures 2-55 and 2-56).

Figure 2-55 Number of COVID-19 Prevention Program by Local Health Security Fund in the Fiscal Year 2021



Source: COVID-19 Integration Dashboard, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021.
Analyzed as of December 16th, 2021.

Figure 2-56 Budget of COVID-19 Prevention Program by Local Health Security Fund classified by Type of programs in the Fiscal Year 2021



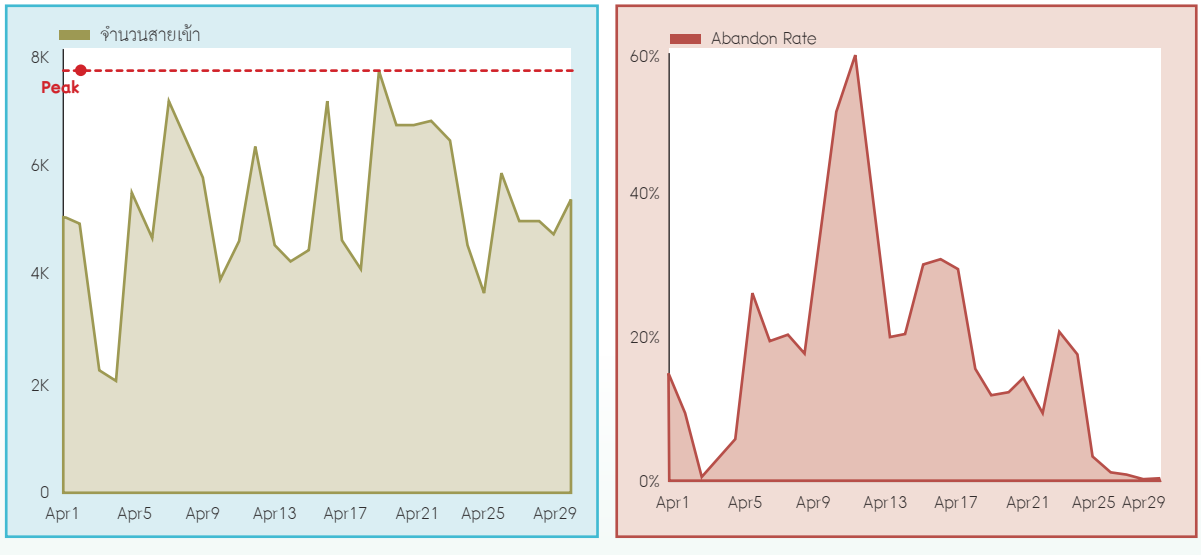
Source: COVID-19 Integration Dashboard, Monitoring and Evaluation Cluster, NHSO, data as of September 30th, 2021. Analyzed as of December 16th, 2021.

6) NHSO 1330 Contact Center service

The first wave of COVID-19 in the 2021 fiscal year was in April 2021 when there were approximately 6,000 to 7,000 calls to the the NHSO 1330 Contact Center of which 59.37 percent was abandoned during the worst of the wave while 15-20 percent was abandoned with 70 officers by the telephones (Figure 2-57).

Therefore, the NHSO had decided to expand the number of hotline telephones and decrease the abandoned calls with end-goal of **no calls left unanswered, citizens receive treatment and no patient abandoned to die at home.** The NHSO had increased the original 300 telephone lines to 600 telephone lines including telephone officers made up of employees from various NHSO units to pick up calls, call back to COVID-19 patients waiting for a bed and coordinate to beds for at least 60 patients per day including collaborated with volunteer networks, vocational organizations to also help answer calls.

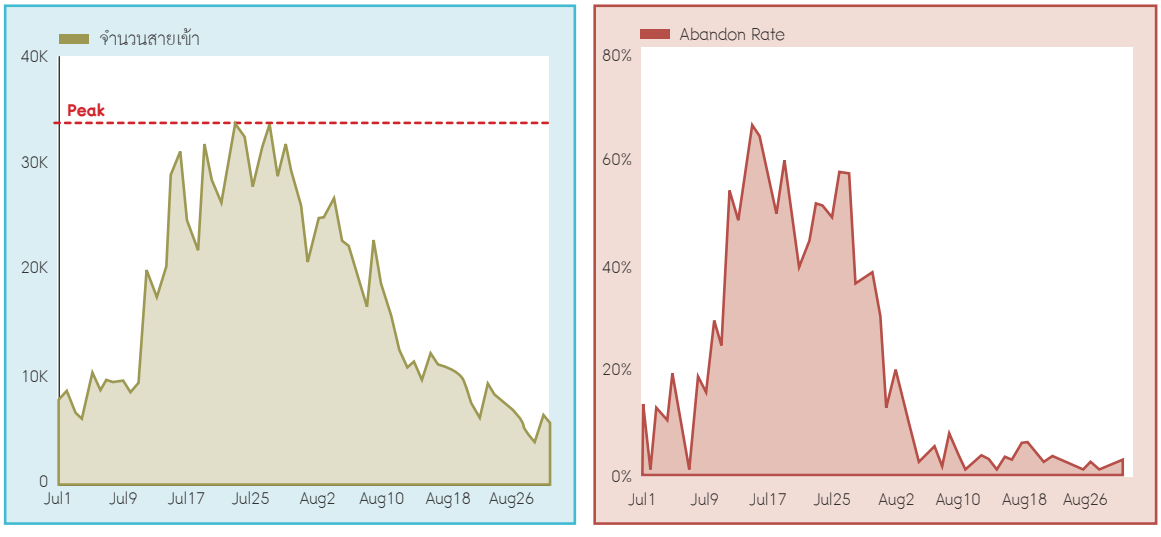
Figure 2-57 Number of Call in to NHSO 1330 Contact Center and Abandon rate in April 2021



Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of April 1st - 30th , 2021

The second wave of COVID-19 outbreak was in July-August 2021 specifically in Bangkok where the number of patients multiplied rapidly further stressing the healthcare system to its limits with insufficient number of beds. Hence, the government had implemented the Home Isolation and Community Isolation and as a result, the number of calls to the NHSO 1330 Contact Center increased to 10,000 to 33,000 calls per day and of this, 40-50 percent of the calls were abandoned. Formerly, there were 200 officers on the line but with such demand, the NHSO had increase from 600 telephones to 1,600 telephone lines while the number of officers increased to approximately 500 to 700 officers. The callers were also outsourced to the private sector and related networks such as *Siam Commercial Bank volunteers (SCB)* that had sent 80-100 telephone line officers per day and *the National Health Commission Office* had sent 5 to 15 officers per day (Figure 2-58).

Figure 2-58 Number of Call-ins to NHSO 1330 Contact Center and Abandon rate in July-August 2021



Source: People Engagement and Entitlements Protection Cluster, NHSO, Data as of July- August 2021

Another convenance for contacting the NHSO 1330 Contact Center was added for COVID-19 patients inquiring about Home Isolation to press extension 14 while extension 15 was used by patients wishing to return to domiciles for treatment. The NHSO teamed up with the Royal Thai Army, Khun Pannada Wongphudee and her team of Goodness Organization including the LAOs, which had prepared vehicles to drop patients back to their home origin. An alternative to the NHSO 1330 Contact Center was added where citizens can register for Home Isolation using a QR code, through the Website and Line messaging in cases where calling the NHSO 1330 Contact Center Ext. 14 did not get through including other various influencers such as dramaaddict, mhor lab panda, zendai volunteer group, Khun Pannadda Wongphudee and her team of Goodness Organization including Thairath and ThaiPBS.

The NHSO had increased the responsibility of the NHSO 1330 Contact Center for SSS and foreigners COVID-19 patients to coordinate for Home Isolation and had proactively monitored the symptoms exhibited by patients waiting for Home Isolation confirmation for over 24 hours. The NHSO had received collaboration in the from *nursing students of Boromarajonani Colleg of Nursing (Chonburi, Phra Phutthabat)* to contact COVID-19 patients waiting for Home Isolation and *We Care Network* to delegate volunteer medical doctors from private hospitals to care for patients through the Line application.

7) Stakeholders Participation

1. Prevention and Control of COVID-19 with Local Administrative Organization (LAOs)

The National Health Security Office had made announced the criteria for the Laos to operate and manage the Local Health Security Fund (3rd Amendment) 2020 for elimination of the pandemic. Additionally, the Department of Local and Administration had notified the circular มท 0819.2/ว 1212 on April 20th, 2020, to all provincial governors and LAOs to comply with the guidelines as declared by the NHSO committee. The announcement was a policy communication and budget guidelines to support operation, educate citizens, support health promotion and disease prevention including establishing the Community Isolation (CI) in collaboration with local service units and providers. The LAOs had helped prevent COVID-19 through 5,791 funds for 29,341 projects amounting to 1,349.885 million baht.

2. Screenings of COVID-19 positive individuals and promotion of Home and Community Isolation for COVID-19 patients

The NSHO with the Rural Doctor Foundation including the Human Settlement Foundation's Affiliated Entities in Bangkok, HIV/AIDS Individuals Thailand, AIDS Access Foundation, Institute of HIV Research and Innovation (IHRI), complainant networks independent of complainant (Unit 50 (5)), NHSO coordination center had proactively tested for COVID-19 in communities using the Antigen Test Kit (ATK) and had supported Rural Doctor Foundation's activities. The NHSO had also teamed up with the Faculty of Medical Technology, Mahidol University, Health Foundation Thailand and Dhanarak Asset Development Co. ltd, together had screened for COVID-19 patients using the ATKs in the carpark next to the Governmental Complex Building B, Chaengwattana Road, Lak Si District, Bangkok, as a special mission from July to September, 2021. There was a total of 37,443 individuals that had been screened at the governmental complex of which 6,180 had tested positive from the ATK and was confirmed by RT-PCR and was advised to enter Home or Community Isolation.

3. Bringing awareness to citizens

The NHSO with the LAOS, Human Settlement Foundation's Affiliated Entities in Bangkok, HIV/AIDS Individuals Thailand, AIDS Access Foundation, Institute of HIV Research and Innovation (IHRI), complainant networks independent of complainant (Unit 50 (5)), NHSO coordination center, village public health volunteer, Bangkok public health volunteers to screen at-risk patients, create awareness regarding the pandemic, self- and community protection, coordinate for patients' access to treatment including preparation of food for Home and Community Isolation patients. Unfortunately, due to the COVID-19

pandemic, kidney failure patients could not receive dialysis since the service units had to cater to COVID-19 patients; the Nephrology Society of Thailand had jumped in to ensure that kidney failure patients received dialysis.

4. Promotion for patients to receive Favipiravir

The NHSO with Ministry of Public Health, Department of Medical Services and Rajavithi Hospital had allowed patients convenient and fast access to Favipiravir to reduce the severity of the disease. The agencies had partnered with the Klongtoey Dee Jung group to distribute medication to patients within communities, Government Savings Bank had subsidized Riders to deliver medications to patients while Thailand Post ensured that medications had reached patients by post including delivered medications to 11,189 patients. In addition, the Rural Pharmacist Foundation, Chiang Mai University's volunteer pharmacists and Naresuan University had called patients to evaluate symptoms, provided advice on medicines and other relevant assistance for Home Isolation patients.

5. Sponsored required equipment for treatment of COVID-19 patients

The NHSO with Zendai group and Chollada Foudnation had distributed survival kits, items needed for Home Isolation care such as oximeters.

6. Sponsored equipment needed to prevent the spread of COVID-19

The NHSO with the NHSO foundation, the private sector, companies and various shops had distributed PPE to public health officers treating COVID-19 patients. Additionally, various other service units cooperated in caring for Hi patient such as hospitals affiliated with the Ministry of Public Health, Thai Red Cross Society , private clinics, private hospitals, monk network: Mahachulalongkorn University, other temple networks, and Social Research Institute many other agencies had driven for Community Isolation centers for patients who couldn't receive care through HI.

SECTION

3

The National Health Security Office Performance

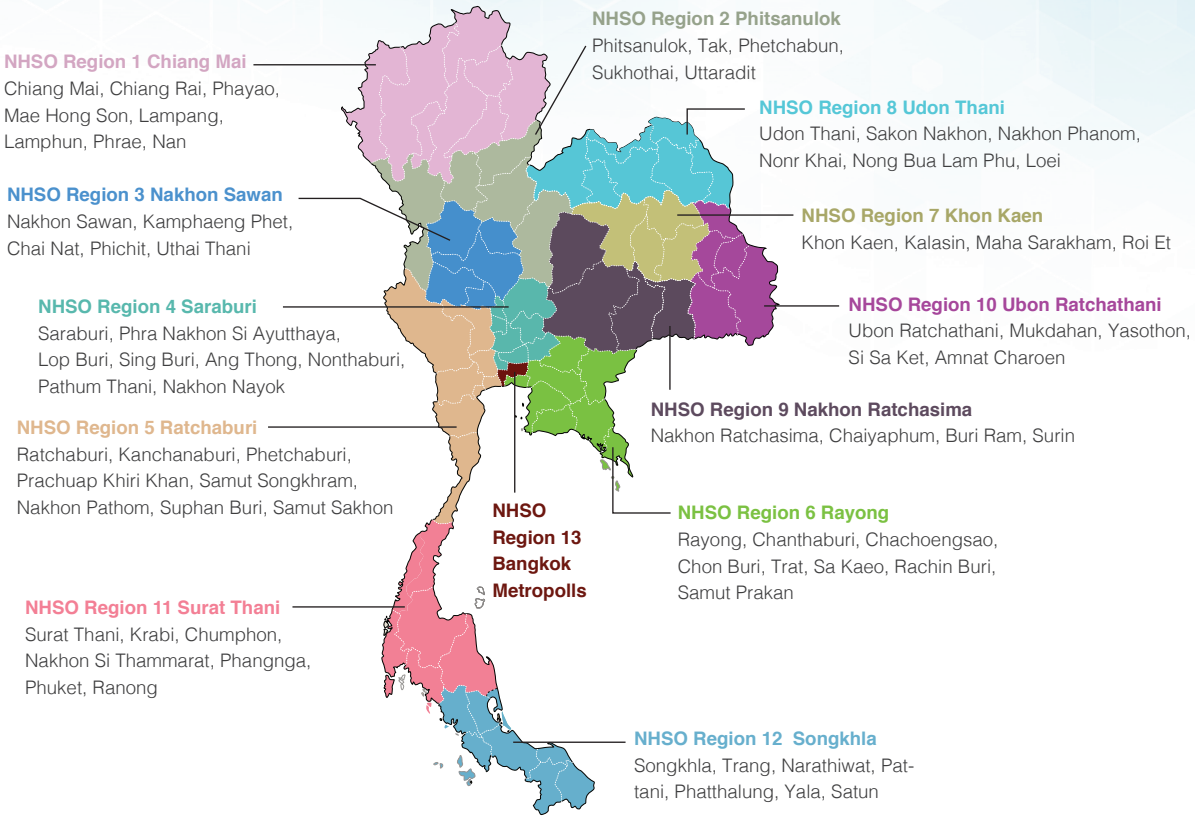
1 National Health Security Office

1.1 National Health Security Office (NHSO)

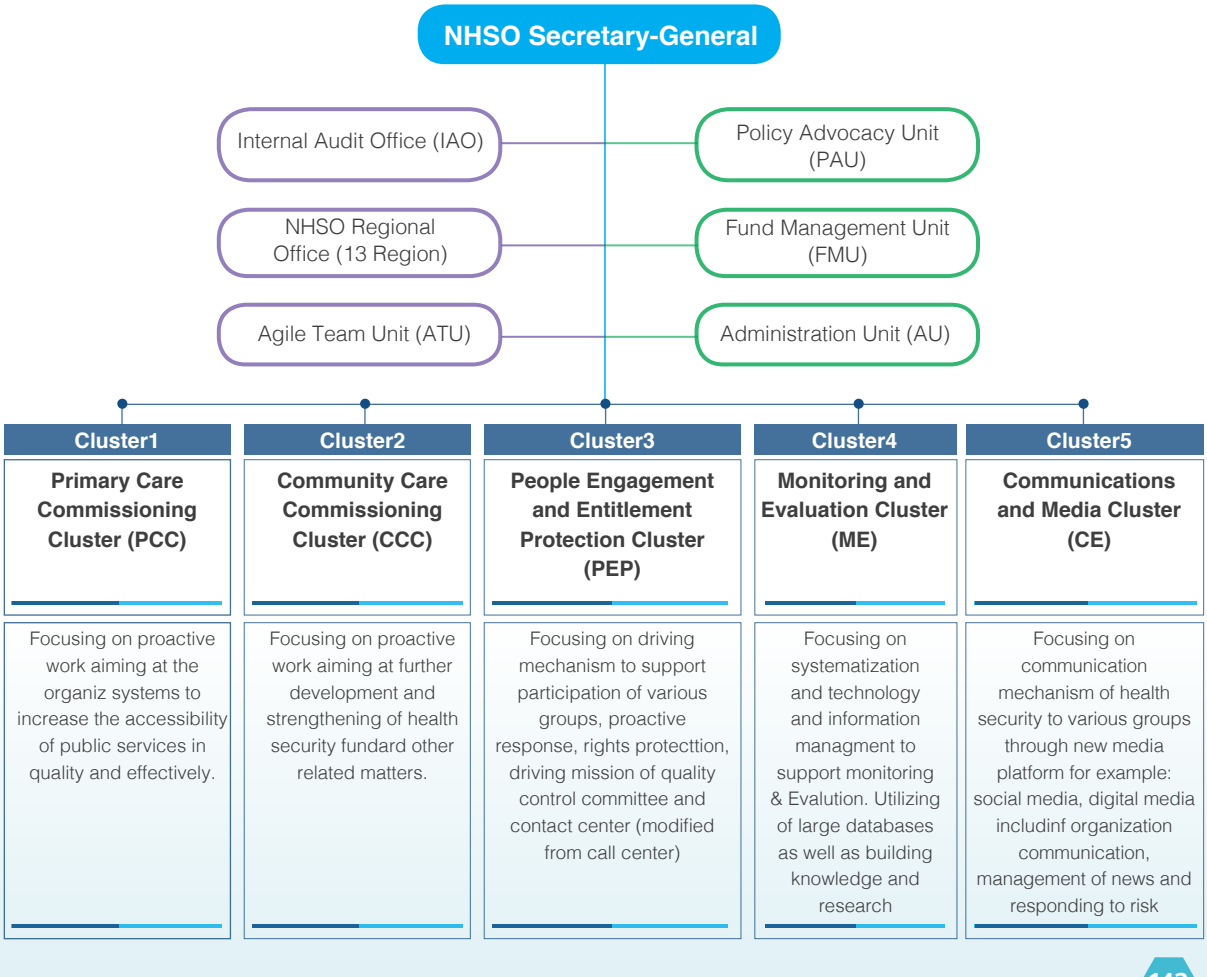
The National Health Security Office was founded following the National Health Security Act 2002, Section 24, decreeing the NHSO to become the public organization under the guidance of the Ministry of Public Health, acting as the secretary of the National Health Security Committee and the Public Health Quality and Standards Control committee.

The NHSO has the primary responsibility to build and develop the Universal Health Coverage for all Thai citizens (except those who are entitled to other insurances as organized by the government) to have access to quality and standard medical care.

The NHSO office is located at 120, Moo 3, 2nd -4th floors, The Government Complex Commemorating His Majesty The King's 80th Birthday Anniversary, 5th December, B.E. 2550 (2007), Chaengwattana Road, Thungsoghong, Lak 4, Bangkok, 10210. Telephone: 02141400, Fax: 021439830. Digital Access: www.nhso.go.th with 13 District branch offices as follows:



1.2 National Health Security Office: Structure



1.3 NHSO Executive

Secretary-General
Jadej Thammatacharee

Dr.Jakkrit Ngowsiri
Deputy Secretary-General

Dr.Athaporn Limpanyalers
Deputy Secretary-General

Dr.Sinchai Tawwuttanakidgul
Deputy Secretary-General

Dr.Lalitaya Kongkam
Deputy Secretary-General

Dr.Aphichat Rodsom
Deputy Secretary-General

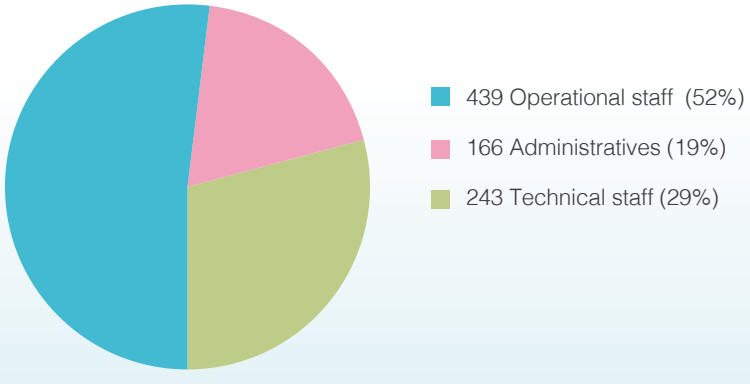
Dr.Yupadee Sirisinsuk
Deputy Secretary-General

Waraporn Suwanwela
Assistant Secretary-General

Benjamas Lerdchakorn
Assistant Secretary-General

1.4 NHSO Personnel

NHSO personnel can be divided into 3 categories: high-level executive, academics and operators with 848 employees hired on a yearly contract basis.



1. 5 National Health Security Office Action Plan in 5 Years, the Fiscal Year 2018-2022 (Revise the Fiscal Year 2020-2022)

Vision:

Everyone who lives in Thailand covered by UHC and access to health care with confidence when needed

Mission:

Secure people toward effective equitable responsive Coverage, Access, and Utilization by evidence-informed decision and participation"

Specific Missions:

1. Promote and develop universal and equitable healthcare, within the National Health Security Fund, for citizens
2. Promote the development of accessible and standardizes public health, under the National Health Insurance, for citizens and providers
3. Continuous efficient Management of the National Health Security Fund
4. Ensure participation and ownership by all affiliated organizations and owners including building good relationships between providers and users whilst protecting their rights of human dignity of all citizens
5. Developing and compiling of evidence-based informing including other sources of information to be used for policy making

3 Goals of "CSG"

C : Effective, Equitable and Responsive Coverage
S : SAFE Financing System
G : Good Governance

10 Indicators to be achieved by 2022

Goals	Indicators and Targets
Accessibility 	1. 1 in every 3 persons have an Effective Coverage 2. Over 80% will use outpatient and over 90% inpatient's services. 3. Over 90% of users and 75% of providers are satisfied with services
Financial Security 	4. Healthcare Expenditure to remain within 4.6 to 5% of total GDP 5. Healthcare expenditure to remain within 17 to 20% of governmental expenditure 6. Less than 2.3% of households face Catastrophic Health Expenditure 7. Less than 0.4% of households face with Health Impoverishment
Good Governance 	8. A success rate of 1 in 3, every 5 years, in commitment and accountability of the National Health Insurance and Quality and Standard Control committees of the National Health Insurance and Quality and Standard Control committees 9. Over 80% success rate of a highly efficient organization 10. Over 90% success in the Integrity and Transparency Assessment according to the ONACC

5 ensure plans

PLAN 1

Ensure coverage and access for vulnerable and underutilization groups

PLAN 2

Ensure quality and adequacy of health services

PLAN 3

Ensure financial efficiency

PLAN 4

Ensure participation and ownership of all stakeholders

PLAN 5

Ensure good governance

1.6 Performance of 10 objectives as the National Health Security Office Action Plan in 5 Years

In the 2019 Fiscal Year, the performance of 10 objects as indicated by the National Health Security Office's Action Plan within 5 years in order to successfully attain 3 goals: Effective, Equitable & Responsive coverage, SAFE Financing System, Good Governance are summarized as follows:

Table 3-1 Performance of 10 objectives as National Health Security Office Action Plan in Fiscal Year 2021

Targets	Indicators	Performance in 2019	Performance in 2020	Targets in 2021	Performance in 2021
1. Effective Equitable & Responsive Coverage	1. Effective Coverage (EC)	Evaluation of the effective coverage for HIV/AIDS patients at 72.5%	Evaluation of the effective coverage for HIV/AIDS patients at 77.5%[1]	**Effective Coverage** for UC HIV patients to be no lower than 78.7%	Evaluation of the effective coverage for HIV/AIDS patients at 76.6%[1]
	2. Compliance rate for inpatients	N/A[2]	85.26%[2]	**No lower than** 89%	N/A[2]
	3. Percentage of beneficiary satisfaction Percentage of provider satisfaction	97.11%[3] 75.99%[3]	97.64% 83.45%[3]	**No lower than** 85% **No lower than** 75%	97.07% 0.94%[3]
2. SAFE: Financing System	4. Percentage of Total Health Expenditure (THE) in proportion to the Gross Domestic Product (GDP)	4.05%[4]	N/A[4]	Between 4.6-5%	N/A[4]
	5. General Government Health Expenditure (GGHE) in proportion to General Government Expenditure (GGE)	16.49%[4]	N/A[4]	Between 17-20%	N/A[4]
	6. Catastrophic health expenditure	1.97%[5] (or 431,000 households)	1.93%[5] (or 431,500 households)	**No lower than** 2.3%	N/A[5]
	7. Health impoverishment	0.19%[5] (or 41,000 households)	0.21%[5] (or 46,000 households)	**No lower than** 0.47%	N/A[5]

Targets	Indicators	Performance in 2019	Performance in 2020	Targets in 2021	Performance in 2021
3. Good Governance	8. Success Rate of commitment and accountability of the National Health Insurance and Quality and Standard Control committees	NHSO and HQC committee to conduct a policy dialogue on Universal Healthcare Coverage in the New Era of Disruptive Technologies to adapt the NHSO and related systems to the wave of disruptive technologies.	NHSO and HQC committee to conduct a policy dialogue on 'emphasizing the importance of Health coverage for Thai citizens' and "Health Coverage for Thai citizens: dream and reach the dream" attended by various esteemed individu-als, who had debated and exchanged knowledge on health and society after COVID-19	Presentation of commitment and accountability to the committee	NHSO and HQC committee to conduct a policy dialogue on healthcare database to established based on the concept of responsibilities, commitment and accountability
	9. Highly Efficient Organization[6]	66.80% (Scored 334 out of 500 total)	74.20% (Scored 372 out of 500 total)	**Not lower than** 80% (400 out of 500 total)	75.20% (376 out of 500 total)
	10. Integrity and Transparency Assessment according to the public sector assessment percentage	89.25%	91.28%	**Not lower than** 90%	89.42%

Notes: [1] *National AIDS Management Center (NAMc), Department of Disease Control, Ministry of Public Health 2020, as published on April 30th, 2021 Nominator: 383,727 HIV/AIDS patients from all schemes that had received antivirals and was able to suppress the viral load (VL<1000 copies/ml, suppressed) Denominator: 501,105 HIV/AIDS forecasted patients equaling to 76.6 percent*

[2] *The Health and Welfare Survey, National Statistical Office, 2019 (surveyed every two years), as analyzed by Dr. Suphol Limwattananont on November 18th, 20202*

[3] *National Health Security Satisfaction Survey 2019 as analyzed by Thammasat University, and 2020 by Research Center for Social and Business Development (SAB) while 2021 was by Brand Matrix Research Co. Ltd.*

[4] *Annual Healthcare Expenditure, 2019, International Health Policy Program (IHPP), Ministry of Public Health (Healthcare Expenditure Data from 2020-2021 is under accumulation)*

[5] *Household Socioeconomic Status and Survey, National Statistical Office 2020 (2021's data is under accumulation) as analyzed by International Health Policy Program (IHPP), Ministry of Public Health; households with Catastrophic Health Expenditure are households with more than 10% of their income disposed to healthcare while households that have is Health Impoverishment are households under the poverty line after having dispersed funds for healthcare*

[6] *High Performance Organization as assessed according to the 7 components to developing into an HPO consisting of 1. Organizational Leadership, 2. Strategic planning, 3. Prioritizing Users and Stakeholders, 4. Measurement, Analysis and Knowledge Management, 5. Employee Focus, 6. Operation Focus, 7. Operation Outcome. The success rate was cited according to the scores and assessment frameworks of the Public Sector Management Quality Award: PMQA 4.0 divided into 3 levels: Basic 300 points, 2. Advance 400 points, 3. Significance 500 points*

[7] *According to the Office of the National Anti-Corruption Commission's Integrity & Transparency Assessment based on the 5 index consisting of 1. Transparency Index, 2. Accountability Index, 3. Corruption-Free Index, 4. Integrity Culture Index, 5. Work Integrity Index consisting of 3 investigative tools: Internal Stakeholders' perception, 2. External Stakeholders' Perception, 3. Empirical Evidence.*

1.7 Efficiency of Administration of the National Health Security System

In 2021, the NHSO had dedicated the capacity of its offices to develop the efficacy of its system in accordance with the NHSO committee's policy until manifestation and had achieved the Digital Government Awards in the category of Governmental Agencies that have transformed into a high-level digital government; the NHSO has won this category for 3 continuous years receiving the 2nd price in 2019, 1st prize in 2020 and 2nd prize in 2021. The awards are:

1. Digital Government Awards for Departmental Level Contracted Service Providers: determined from the top 8 overall scores according to the framework of the Digital Government Readiness of Thailand with scores not less than 80 points (out of a total 100).

2. Data Governance: determined by the level of execution, the implementation and promulgation of data governance, and declaration of a central data list with Metadata as explained in accordance with the 5 DGF standards as follows

1) **Health Wallet** is the mobile application to support public healthcare for efficiency, high coverage and decrease congestion in hospitals
2) **Smart Office Service (SOS)** is an office management system to facilitate citizens and service providers by reducing procedures and n efficiency through electronic systems
3) **NHSO Mobile Application** is an online platform where beneficiaries can request for transfer of contracted unit and check for benefits through one's mobile phone
4) **COVID-19 /1330 Contact Center** is the project where the number of telephone lines had been increased to satisfy the high demand during the COVID-19 pandemic and to provide assistance to citizens through a Realtime Monitor system and Line Bot
5) **NHSO E-Learning** is an online learning platform for human resources development and public awareness regarding Universal Health Coverage and in the future, there will be other courses in collaboration with other departments

3. ASEAN Social Security Association (ASSA) had been conducted for the continuous 6th year in the category "Insurance Coverage Recognition Award" from the (No-fault compensation for COVID-19 vaccination's adverse events project to protect those suffering from the side effects of COVID-19 vaccinations and to build confidence for citizens to be vaccinated.

In addition, Office of the National Anti-Corruption Commission (ONACC) had conducted the Integrity and Transparency Assessment (ITA) to fight corruption and for the 2021 year, the NHSO had an ITA rating of Grade A with 89.42 scores out of 100 total.

2 Rights Protection Services and Partner Network Participation

2.1 Rights Protection Services

The NHSO has launched the NHSO 1330 Contact Center, letters, fax, e-mail, personal contact or Interactive Voice Response (IVR) for patients and healthcare providers to inquire, complain, petition and to coordinate for bed reservations. In addition, to mitigate the COVID-19 situation which had over 20,000 call-ins per day, the NHSO 1330 Contact Center had increased telephone lines to 3,000 including an alternate channel through Line Application, where inquiries made were answered by volunteers and also as a registration channel for COVID-19 patients to request for Home Isolation and return to domiciles.

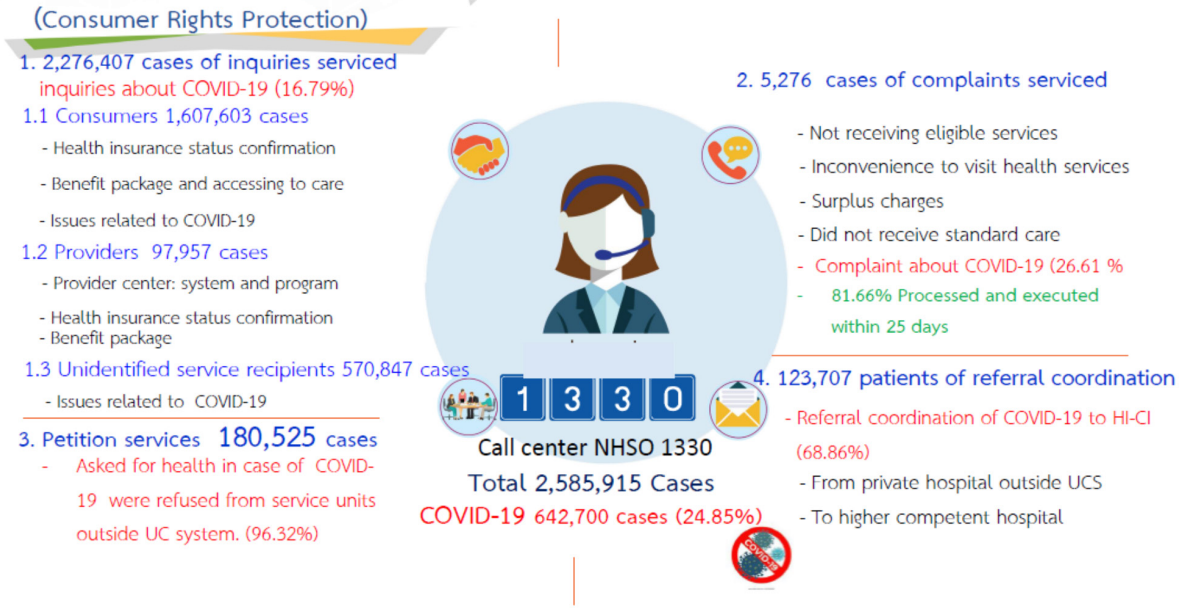
In the FY 2021, there were a total of 2,585,915 calls to the NHSO 1330 Contact Center of which 642,700 were regarding COVID-19 and are classified into:

1) **Inquiries Serviced:** a total of 2,276,407 of which 382,219 (16.79 percent) were COVID-19 related, 1,607,603 (70.62 percent) were inquiries made by citizens, 97,957 (4.30) were inquiries made by providers while 570,847 (25.08) were inquiries made through IVR and could not group the category of the inquirer.
2) **Complaints Serviced:** a total of 5,276 complaints were made of which 1,404 (26.61 percent) was COVID-19 related

3) Petitions Serviced: a total of 180,525 petitions were filed of which 173,889 (96.32 percent) were regarding COVID-19 where providers had refused services or providers were not registered in the UC system

4) Referral Coordinated: a total of 123,707 cases were coordinated of which 85,188 cases (68.86 percent) were COVID-19 coordination for patients requesting for Home Isolation and Community Isolation (Figure 3-1)

Figure 3-1 Number of rights protection services in Fiscal Year 2021



Source: People Engagement and Entitlements Protection Cluster, NHSO, Data on 30th September 2021

Note: In FY 2021, there were 2,585,915 total work calls made by both patients and provider via 1330 Contact Center, of which 1,209,134 were Calls End IVR and 1,376,781 were incoming work calls, which were 1,073,255 inbound work calls and 303,526, or 22.02%, were abandon work calls

1) Information Inquiries

1.1) There was a total of 1,607,603 **inquiries made by citizens** of which 1,559,153 (96.99%) were regarding rights of the UCS of which the majority 819,651 cases (52.57%) were regarding eligibility verification followed by benefit package and accessing to public healthcare at 483,773 cases (31.03%) and regarding COVID-19 at 116,362 cases (7.46%) (Table 3-2).

Table 3-2 Number of Information Inquiries serviced of consumers in Fiscal Year 2017-2021

Inquiries from Consumers	2017	2018	2019	2020	2021
1. UCS beneficiaries	676,215	811,259	747,110	835,992	1,559,153
1.1 Registration and selection of healthcare units	151,386	85,496	96,819	110,287	73,198
1.2 Benefit package and access to care	143,936	217,529	224,642	281,410	483,773
1.3 Compensation for harmed persons from health service by Article 41 of the act	173	278	264	203	37
1.4 Health insurance status confirmation	322,765	402,296	369,506	384,777	819,651

Inquiries from Consumers	2017	2018	2019	2020	2021
1.5 Hospital information	16,884	66,643	18,129	19,814	12,303
1.6 Organization information	3,166	3,424	4,125	4,121	1,321
1.7 Universal Coverage Emergency Patients (UCEP)	9,606	3,892	3,704	2,823	504
1.8 Invalid medical welfare	-	-	1,511	1,674	1,558
1.9 Disability Person in Social Security Schemes	-	-	1,627	958	772
1.10 Others: news, other organizations, etc.	28,299	28,563	27,289	30,227	51,267
1.11 Regarding COVID-19	-	-	-	-	116,362
2. CSMBS beneficiaries	4,459	3,781	3,373	2,736	5,270
3. SSS beneficiaries	12,661	13,708	11,154	10,872	27,129
4. LAOs benefits	9,212	11,989	11,094	11,512	10,426
5. Other medical welfare (state enterprises, teachers from the private sector, etc.)	-	2,352	2,444	2,042	5,625
Total	702,547	843,089	775,175	863,154	1,607,603

Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th, 2021

1.2) Inquiries made by providers totaled to 97,957 cases consisted comprising of 91,503 cases (93.41 percent) relating to the UCS of which the majority was regarding the Provider Center's system and program at 64,6486 cases (70.65 percent) and eligibility verification at 6,960 cases (7.61 percent) (Table 3-3).

Table 3–3 Number of Information Inquiries serviced of healthcare providers in Fiscal Year 2017-2021

Inquiries from Healthcare providers	2017	2018	2019	2020	2021
1. Providers in UCS	36,529	50,281	104,308	98,310	91,503
1.1 Registration and selecting healthcare units	3,425	1,570	1,520	1,376	1,306
1.2 Benefit package	4,822	4,349	4,400	4,271	4,927
1.3 Receiving refund	1,368	2,189	2,169	3,177	2,609
1.4 Compensation for harmed persons from health service as per Section 41 of the NHSO Act	5	13	35	14	-
1.5 Compensation for harmed persons from health service as per Section 18(4) of the NHSO Act	12	9	7	12	-
1.6 Health insurance status confirmation	11,911	12,233	15,862	13,363	6,960
1.7 Hospital information	460	437	345	289	214
1.8 Organization information	617	801	841	802	404
1.9 Universal Coverage Emergency Patients (UCEP)	645	735	713	651	94
1.10 Invalid medical welfare	-	592	629	444	252
1.11 Disability Person under the Social Security Scheme	-	420	227	128	13
1.12 Provider center: System and Program	1,506	14,488	65,365	64,686	64,648

Inquiries from Healthcare providers	2017	2018	2019	2020	2021
1.13 Others; news, other organizations, etc.	11,758	12,445	12,195	9,097	8,234
1.14 COVID-19 related	-	-	-	-	1,842
2. Providers in CSMBS	1,612	2,091	2,005	1,423	938
3. Providers in SSS	1,334	1,519	1,600	1,394	2,708
4. Providers in LAOs	1,434	3,164	2,781	1,700	1,449
5. Other medical welfares	-	840	1,044	783	1,359
Total	**40,909**	**57,895**	**111,738**	**103,610**	**97,957**

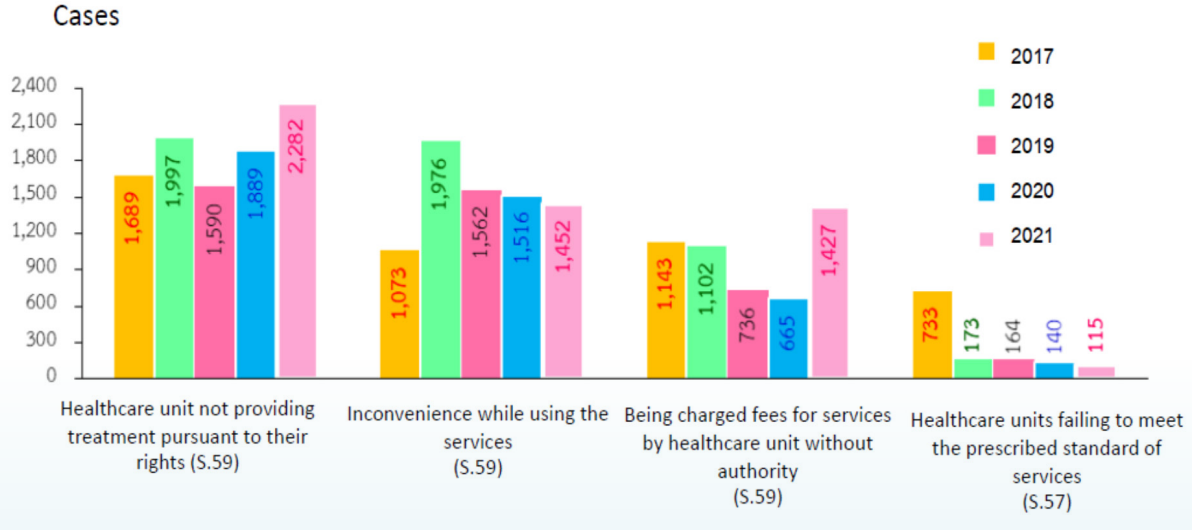
Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th ,2021

2) Complaints Services

Accepting complaints is another mechanism to protect citizens' rights as it acts as a channel for citizens to provide information regarding healthcare issues. As a result, there will be an increase in transparency of services and establishing a better understanding between the customers and providers, who may not always be at fault, but the mistake was due to a misunderstanding.

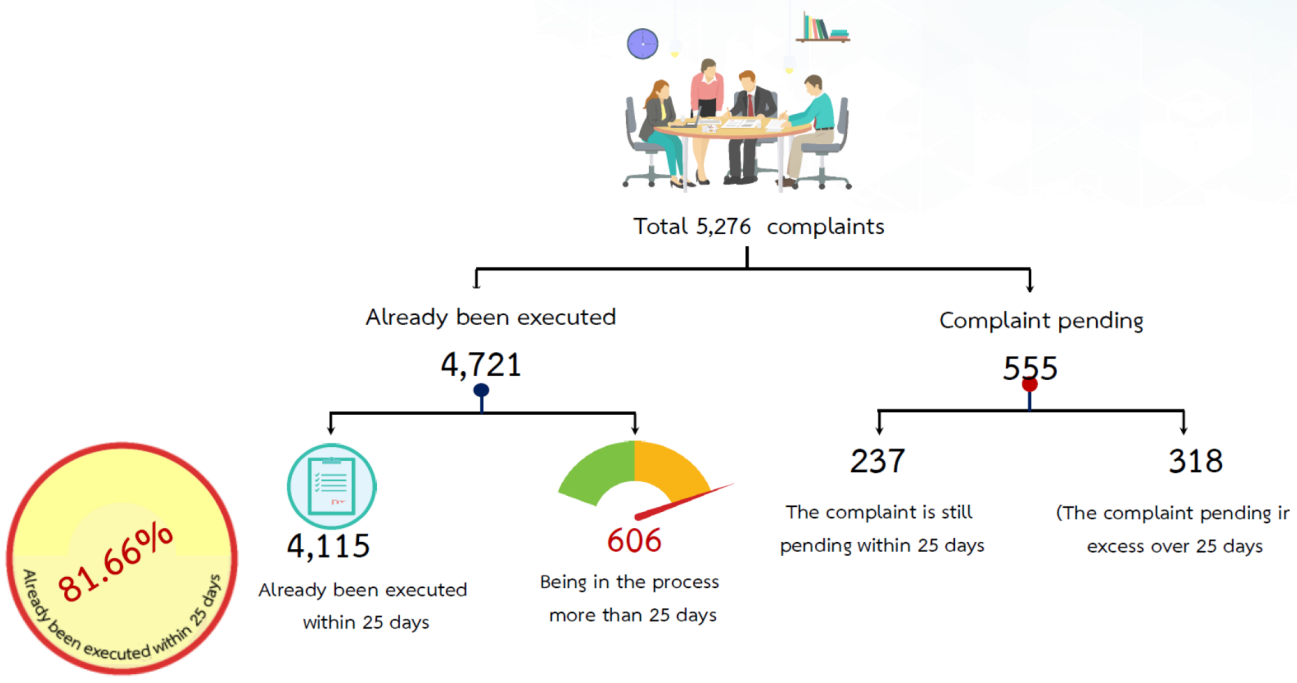
In FY 2021, the NHSO had received a total of 5,276 complaints of which 2,282 complaints (43.25 percent) (Section 59) were regarding beneficiaries not receiving eligible services. Inconvenienced beneficiaries lodged 1,452 complaints (27.52 percent) (Section 59) followed by 1,427 complaints (27.05 percent) regarding surplus charges made by providers while 115 complaints (2.18 percent) did not receive MoPH standard care (Figure 3-2). There were 4,721 complaints that were processed, and 4,115 (76.03 percent) were executed within 25 office days (Figure 3-3).

Figure 3-2 Number of Complaints serviced classified by according to UCS Act. in the Fiscal Year 2017-2021



Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th, 2021

Figure 3-3 Number of Complaints management and already been executed within 25 working days in the Fiscal Year 2021



Source: *People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th, 2021*

Note: *Percentage of Executed Complaints =*

$$\frac{\textit{Complaints (Section 57, 59) executed within 25 days X 100}}{\textit{(All complaints - Complaints executed still pending within 25 days)}}$$

3) Petition Services

In the FY 2021, the NHSO had 180,525 petitioned cases, of which 163,322 (89.92 percent) were UCS rights comprised mainly of COVID-19 issues such as Home/ Community Isolation, or COVID-19 screenings at other service units, at 155,481 cases (96.01 percent), followed by 4,289 cases (2.64 percent) on registration and selection of healthcare units followed by 815 cases (0.50 percent) of assistance (Table 3-4).

Table 3-4 Number of Petition serviced in the Fiscal Year 2017-2021

Unit: cases

Petition Services	2017	2018	2019	2020	2021
1. UCS	9,872	8,752	5,760	5,038	162,322
1.1 Registration and selecting healthcare units	1,202	6,373	3,834	2,923	4,289
1.2 Invalid medical welfare	6,605	586	523	443	346
1.3 Requesting for help	1,117	900	661	670	815
1.4 Consultation/recommendations	467	366	356	517	493
1.5 Refused under section 7	-	3	5	-	-
1.6 Refused to use UCEP service	131	12	5	4	122
1.7 Anonymous letter	-	182	164	112	120
1.8 COVID-19 related	-	-	-	228	155,841
1.9 Other issues	350	330	212	141	296
2. CSMBS	96	26	36	27	3,089
2.1 COVID-19 related	-	-	-	-	3,039
2.2 Other issues	96	26	36	27	50
3. SSS	68	14	12	20	14,995
3.1 COVID-19 related	-	-	-	-	14,905
3.2 Other issues	68	14	12	20	90
4. LAOs	54	65	24	14	60
4.1 COVID-19 related	-	-	-	-	52
4.2 Other issues	54	65	24	14	8
5. Other benefits	-	-	-	-	59
5.1 COVID-19 related	-	-	-	-	52
5.2 Other issues	-	-	-	-	7
Total	**10,090**	**8,857**	**5,832**	**5,099**	**180,525**

Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of September 3th, 2021

4) Coordination for Referral Services

In FY 2021, the Coordination Center for Referral Services of Accidents and Emergency Patients referred a total of 123,707 patients of which 55,549 patients (44.90 percent) were under the UCS. Majority of the UCS patients were COVID-19 patients at 25,729 cases (46.32 percent) followed by 21,527 cases (38.57 percent), who had received treatment from unaffiliated private hospitals (Table 3-5).

Table 3-5 Number of Coordination issues for referral services in the Fiscal Year 2017-2021

Unit: cases

Coordination for Referral Services	2017	2018	2019	2020	2021
5. Others	6,510	14,809	19,164	19,049	55,549
1.1 Treatment in private hospitals outside UCEP service	5,790	14,511	19,045	18,972	21,527
1.2 No bed/bed not available	162	32	11	6	7,795
1.3 Exceeded the capacity of healthcare units	438	240	97	57	170
1.4 Returned to contracting unit	115	26	10	10	45
1.5 Coordinated referrals for COVID-19 patients	-	-	-	-	25,729
1.6 Other issues	5	-	1	4	283
2. CSMBS	133	39	26	28	2,883
2.1 Coordinated referrals for COVID-19 patients	-	-	-	-	2,090
2.2 Coordinating referrals and Universal Coverage for Emergency Patients	133	39	26	28	793
3. SSS	22	23	17	14	20,220
3.1 Coordinating referrals for COVID-19 patients	-	-	-	-	14,448
3.2 Coordinating referrals for general patients	22	23	17	14	5,772
4. LAOs	29	279	379	357	442
4.1 Coordinating referrals for COVID-19 patients	-	-	-	-	97
4.2 Coordinating referrals for general patients	29	279	379	357	345
5. Others	9	63	45	50	44,613
5.1 Coordinating referrals for COVID-19 patients	-	-	-	-	42,543
5.2 Coordinating referrals for general patients	9	63	45	50	2,070
Total	**6,703**	**15,213**	**19,631**	**19,498**	**123,707**

Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th, 2021

5) Calling to follow up and inquiries received services

In the FY 2021, the NHSO 1330 Contact Center had proactively increased its patients' monitoring efforts having called back 236,812 patients of which 47,069 calls (19.88 percent) were monitoring patients' conditions while 189,473 cases (80.12 percent) were inquiries regarding service quality (Table 3-6).

Table 3–6 Number of calling to follow up and inquires received services the Fiscal Year 2021

Calling to follow up and inquires received services	Cases
1. Follow up to signs and symptoms	47,069
1.1 Covid-19 patients	44,911
1.2 Chronic Kidney Disease and Cancer patients, during the flood	240
1.3 Patients being in private hospitals outside UCEP service	1,918
2. Follow-up to receiving services	189,743
2.1 COVID-19 patients isolated at home, HI	183,030
2.2 Distributing and receiving Antigen test kits	6,713
Total	**236,812**

Source: People Engagement and Entitlements Protection Cluster, NHSO, data as of September 30th, 2021

2.2 Partner networks participation

The NHSO's establishment of a network to protect consumers' rights under the UCS consists of:

(1) NHSO Customer Service Centers in health units: A total of 855 NHSO service centers within 77 provinces to assist UCS consumers, creating an understanding between the providers and consumers, including decreasing contradictions within the health system.

(2) Center for Coordination of UCS: A total of 224 NHSO Coordination Centers within 77 provinces, a cooperation of public sector's network in UCS, providing knowledge and understanding, coordinating with other public network in the local area. Hence, the cooperation in management and development of UCS aim to improve the standard and quality of health services.

(3) Independent Complaint Receiving Unit as per the Section 50 (5): A total of 126 Independent Complaint Units in 70 provinces acting as channels for beneficiaries to lodge complaints comfortably and independently from complainant to protect the rights of beneficiaries; additionally, the unit provides preliminary aid to service recipient who suffered from mistreatment. This effort is from the collaboration between the NHSO and the public sector. NHSO plans to establish independent Complaint Receiving Units in the 7 provinces which has no Complaint Receiving Unit, namely Nan Province, Suphanburi Province, Samutprokarn Province, Chol-buri Province, Rayong Province, and Prachinburi province at a district for all districts by 2025.

(4) CIVIL SOCIETY/PEOPLE'S NETWORK: A total of 300 Networks had operated as stipulated in NHSO Act 2002 focusing on issues regarding those of Child and Youth, Women, Elderly, Disability and Psychiatry, HIV and other chronic diseases, labors, congested housing (slums), agriculture, the minority, Right protection/ consumer protection, local media/regional media,

and monk network/religious leader (in Bangkok and metropolis).

The cooperation of the public sector networks in 2021 with other agencies and organizations had helped care for citizens during the COVID-19 pandemic from brining awareness, coordinating with the NHSO for patients to have access to treatment and also establishing the Community Isolation.

In addition, there are operations conducted by people's network as follows:

1. **People with Disabilities' Organization:** three disabled service units had registered as joint service units catering medical rehabilitation services consisting of Chonburi, Pathum Thani and Nonthaburi's Independent Living Centers providing care as per the benefits to attain an independent living for persons living with disabilities and mobility. These centers work in collaboration with local service units; in addition, these centers have prepared to expand services for persons with disabilities such as rehabilitation for autistic children, the mentally impaired, visual rehabilitation services, and Thai traditional medicines for children with disabilities.

2. **Community organizations:** had driven a search for Thai persons without rights to go through the process of proving rights of status for access to UC. In 2021, 57 individuals had become a beneficiary, 78 undergoing the process, 28 entering the process (accumulating information) and 5 others (such as no history, no information).

3. **Farmers organizations:** In Region 12 Songkhla, there had been screenings for cardiovascular diseases risks for community leaders allowing high-risk citizens to receive health advice and change their behaviors

4. **Religious Leaders/ Monks organizations:** such as Pariyattitham School and Buddhist Universities had driven for monks and local networks to be aware of their rights and benefits to end goal for monks and novices to gain access to medical care. Another end goal is for monks to assist locals as the representatives of "Buddhist Universal Coverage Coordination Center" of which there are 54 strategically scattered to provide knowledge, encourage access for local monks and novices to build wellness for the clergy, community and society.

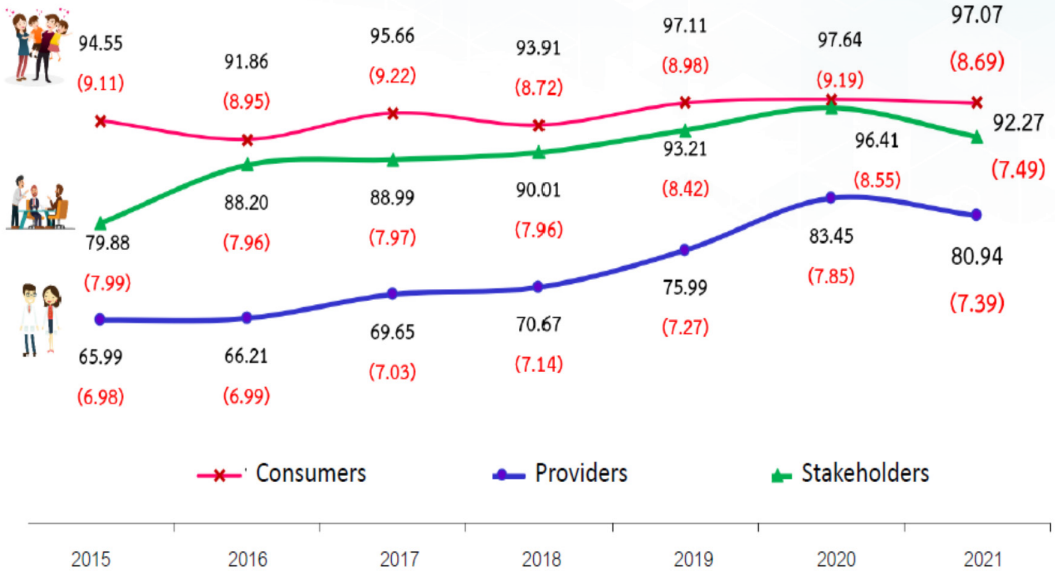
3

Consumers Providers and Stakeholders Satisfaction to Universal Coverage Scheme

The Consumers and Stakeholders Satisfaction Survey, conducted by the Academic Institute starting from 2003, found that there has been a continuous increase in satisfaction among consumers, providers and associated organizations.

In FY 2021, 97.07 percent (the average satisfaction was at 8.69 points) of citizens gave the highest satisfactory score (7-10 points) for UCS services followed by 80.94 percent of providers (the average score was at 7.39 points) while 92.27 percent (the average score was at 7.49 points) of the associated organizations (the LAOs and the twelve public sector organizations). The overall picture indicates that there was a higher level of satisfaction, compared to the providers, as a result of many factors; a representation that the NHSO was able to meet the demands of the citizens. However, certain managerial aspects may not satisfy the needs of the providers, which is a challenge for the NHSO to satisfy different target groups (Figure 3-4 and Table 3-7).

Figure 3-4 Percentage and Score of Satisfaction from Consumers, Healthcare providers and other Stakeholders in the Fiscal Year 2015-2021



Source: *Satisfaction Survey of Consumers, Healthcare Providers, and other Stakeholders to Universal Coverage Scheme in the Fiscal Year 2015-2021, NHSO*

Notes: *1. The percentage of satisfaction for target groups who identified score at 7-10*

2. In 2019-2021, Survey use Sampling frame of National Statistical Office

Table 3-7 Suggestions from Satisfaction Survey of Consumers, Healthcare Providers, and other Stakeholders to Universal Coverage Scheme in the Fiscal Year 2021

Target Group	Suggestions
Citizens	- Increase channels and decrease procedures for benefits authentication to increase stability for the system
	- Fast and efficient registration system for access to preferred service unit
	- Increase channels for inquiries and should increase publicity regarding inquiry channels and complaints
	- Transfer of service units should be immediately exercised by increasing registration channels and service units
Providers	- Convenient transfer of benefits and expansion of healthcare benefits
	- Usage of essential and non-essential drugs with limiting the right to treatment
	- Development of technologically-based and efficient system to authenticate, refer and coordinate
	- Allocate appropriate budget in consistent with the current situation for immediate and comprehensive care to all citizens
Other Stakeholders	- Citizens have access to equal and equitable healthcare covering treatment costs and non-essential drugs
	- Systematic, fast and efficient management
	- Increase provision of accurate and precise information regarding UCS and proofreading information before publicizing to citizens
	- Increase awareness and understanding of benefits for all citizens in a comprehensive manner

Source: *Satisfaction Survey of Consumers, Healthcare Providers, and other Stakeholders to Universal Coverage Scheme in Fiscal Year 2021, NHSO*

4

Key Performance Indicator Assessment Report of NHSO, appraisal of working capital, in the Fiscal Year 2021

The Comptroller General's Department had appraised the working capital for all fiscal years as a mechanism of regulating the funds operations in accordance with its main mission in an organization with a good, efficient and transparent management system. The evaluation frameworks comprise of 6 indicators: 1. Finances, 2. Stakeholders' benefits, 3. Operations, 4. Management of Working Capital, 5. Performances of the executive committee, managers, employees and workers in managing the working capital, and 6. Operations in accordance with the policies of Ministry of Finance as indicated by TRIS Corporation Limited which had set the indicators and had evaluated performance according to the indicators. The evaluation of the performances of NHSO in the 2021 fiscal year as per the 6 indicators had 22 items with the highest score of 5 and 2021 fiscal year, the NHSO had achieved 4.7163 points out of 5. The indicators and results are found in Table 3-8.

Table 3–8 Key Performance Indicator Assessment Report of NHSO in the Fiscal Year 2021

Indicators	Score
1. Finances (10% weight)	**4.5000**
1.1 Efficiency in Management of Funds	
1.1.1 Percentage of units achieving targeted per capita remittance	4.0000
1.1.2 Percentage of units receiving funds transfers on time	5.0000
2. Stakeholders' benefits (20% weight)	**4.7172**
2.1 Development of database to assess outcomes and impacts of working capital (joint indicator)	5.0000
2.2 Universal Coverage Scheme Satisfaction 2.2.1 Citizens	5.0000
2.3.2 Other organizations	5.0000
2.2.3 Providers (e-claim system)	3.6980
2.3 Citizens' dissatisfaction improvement towards the UC	5.0000
2.4 Recurrence prevention of substandard quality of public healthcare in the UC	4.4166
3. Operations (35% weight)	**5.0000**
3.1 Cervical Cancer screenings	5.0000
3.2 Performances after integration of database for efficient disbursements of funds	5.0000
3.3 Integrity and Transparency Assessment as per the government's standard (NACC)	5.0000
3.4 Each dependent elderly had received individual Care Plan (CP)	5.0000
3.5 Tuberculosis screenings for prisoners	5.0000
3.6 Effectiveness of citizens' network participation	5.0000
3.7 Households facing Catastrophic Health Expenditure at no higher than 2.3%	5.0000
4. Management of Working Capital (15% weight)	**4.2950**
4.1 Risk Management	3.7900
4.2 Internal Audit	4.5200
4.3 Information Management Systems	4.5750
5. Performances of executives, managers, employees and workers in management of working capital (10% weight)	**4.2863**
5.1 Role of working capital committee	4.9000
5.2 Human Resources Management	3.6725
6. Execution per the governmental/ Ministry of Finance's policies (10% weight)	**5.0000**
6.1 Disbursement under an approved disbursement plan	
- Percentage of occurred disbursement compared with overall disbursement plan for the 2021 fiscal year	5.0000
6.2 Implementation as per the payment system and receipt of the working capital through electronic systems	5.0000

Source: The National Health Security Report, FY2021 (original draft); data as of January 11st , 2022

5

Actions under Section 9 and Section 10 of the National Health Security Act 2002

The intent of the promulgation of the National Health Security Act B.E. 2545 (A.D. 2002) is in accordance with Section 52 and Section 82 of the Constitution of the Kingdom of Thailand whose commandments establishes that all Thai citizens have rights to standard and comprehensive healthcare. To this end, it became a necessity to establish a standard healthcare system, consolidating management of multiple existing healthcare systems to reduce overall costs without redundancy and readjust the system for efficiency. As stipulated in Section 66 per the Royal Decrees provided in Section 9 and 10, the expansion of coverage for civil servants, LAOs employee's benefits, state-enterprise benefits and SSS to be enacted within one year the Act is implemented; in the case of incompletion of the Royal Decree, there will be an extension of one year provided the Ministerial Council is informed of the reasons and have publicized such report to the public.

During its operational period, the National Health Security Office had driven for equality of medical care for all of the Kingdom's public healthcare scheme but has not been able to accomplish the targets as decreed by the Sections 9 and 10. The NHSO had reported the reasons to the Council of Ministers from 2003 to 2008 while from 2009 to 2019, the NHSO had not requested for an extension but had reported to the Comptroller General's Department and Social Security Office to seek mechanisms to reduce disparities in access to healthcare for beneficiaries.

The National Health Security committee had ordered the establishment of a subcommittee to drive harmony within the public healthcare schemes on 5th August, 2020, to study, analyze and present an operational guideline as per the Royal Decrees 9 and 10. The NHSO committee meeting, 1/2564 (1/2021) on 6th January, 2021, had, per the Royal Decrees 9 and 10, given its approval for health promotion and

disease prevention as the basic care for all citizens including health promotion and diseases prevention for HIV patients and long-term care for dependent individuals in communities; additionally, the timeframe needed for expanding necessary medical services was determined while the legal subcommittee drafted the Royal Decrees 9 and 10.

The National Health Security Office had requested for time extension and reported reasons for the office's inability to accomplish as per the Royal Decrees 9 and 10 as stipulated in Section 66 of the National Health Security Act 2002 to the Council of Minister on August 24th , 2021; the progress reported in the enactment of two royal decrees are as follows:

1. The Royal Decree states that the legal mother, father and children of private school's principals, or school teachers, are entitled to public healthcare rights as stipulated in the National Health Security Act 2002 and 2007

2.The Royal Decree states that the employees, or workers, of Local Administrative Organizations and family of the employees of Local Administrative Organizations are entitled to public healthcare rights as stipulated in the National Health Security Act 2002 and 2013.

The reasons for inability to enact the royal decrees for public offices, governmental employees and employees of Bangkok and Pattaya's Local Administrative Offices, employees or workers of state-enterprises, workers for other governmental agencies and Social Security beneficiaries as per the Sections and 10 of the National Health Security Act 2002 are as follows:

1. The responsible agency for management of public healthcare funds are the National Health Security Office, Comptroller General's Department and Social Security Office, all of which still require system development and decrease of disparities between the 3 health schemes for fair public healthcare to all citizens.

2. The enactment of the Royal Decree Section 9 encroaches the scope of an individual's rights to health services as per the Section 9 existing under laws, rules, regulations, announcements, cabinet resolutions or any orders established for government agencies that depends on various database to make an informed decision, particularly, with the information provided by the stakeholders. In regards to the Royal Decree 10, the National Health Security Funds and the Social Security Fund still have disparities in benefits, source of funds, management of funds including other minor systems, which requires necessary developments.

Nevertheless, the National Health Security Office, the Social Security Office and the Comptroller General's Department had continuously integrated and collaborated in matters such as determining the central disbursement pricing for medications and certain medical equipment namely cardiac catheter, expensive drugs including determining new standard benefits namely cancer drugs in the Essential Drugs E(2) and transplantation. The two offices had jointly also established a reimbursement audit guideline, integration and management of beneficiaries for all schemes, management of National Clearing House, management of antiretrovirals for HIV/AIDS, management of expensive and conditional prescription drugs (E(2) drugs).

3. The National Health Security Office is currently in the midst of improving its healthcare database of beneficiaries of all schemes to the end goal of facilitating transfers from SSS or CSMBS to UC to expand services to personnel as per the Sections 9 and 10 of the National Health Security Act 2002. The improvement includes the development of service unit registration, determination of category and scope of public healthcare services including increase access to fair and comprehensive care for all Thai citizens

4. The National Health Security Office had drafted an agreement letter to responsible agencies namely the Comptroller General's Department, the Local Administrative Organizations (Bangkok and Pattaya City), public organization's development and promotion committee, state-enterprises' policy committee, Social Security Service committee. The letter had provided information on rights as required by law and operating guidelines in the event these agencies wish to extend public healthcare benefits to their public officers, employees, workers and/or individuals reliant on rights such as their fathers, mothers, and children as stipulated in the National Health Security Act and if these agencies acquiesce, there will be an agreement with the National Health Security committee to become the Royal Decrees 9 and 10. When the Royal Decrees comes into enactment, the office will earmark funds for these individuals' healthcare expenditures to the Universal Coverage Scheme fund as per the agreed upon criteria, regulations and time period.

The Comptroller General's Department had lettered answering the query stating that since the Section 9 is a delicate issue requiring informed consent and approval from stakeholders namely the beneficiaries of the Civil Servant Medical Benefit Scheme 2003 and the additional amendment of the National Health Security Office proposal has to be justified whether the amendments will comply with the 2 commandments and since this is a restructuring of the public administration, there needs to be further discussions with relevant agencies. Currently, the Comptroller General's Department had continuously been developing the CSMBS benefits, improving the information system for reasonable disbursement of funds consistent with the governmental policy of integration of public healthcare agencies.

As for agencies other than the Comptroller General's Department, the NHSO is awaiting a reply before presentation to relevant subcommittee and the NHSO committee. Concurrently, the office had drafted the Royal Decrees 9 and 10 regarding basic health promotion and disease prevention for all citizens, health promotion and disease prevention for HIV patients, and long-term care for dependent individuals in communities, which have been approved by the legal subcommittee and the subcommittee driving for harmony between the public healthcare schemes.

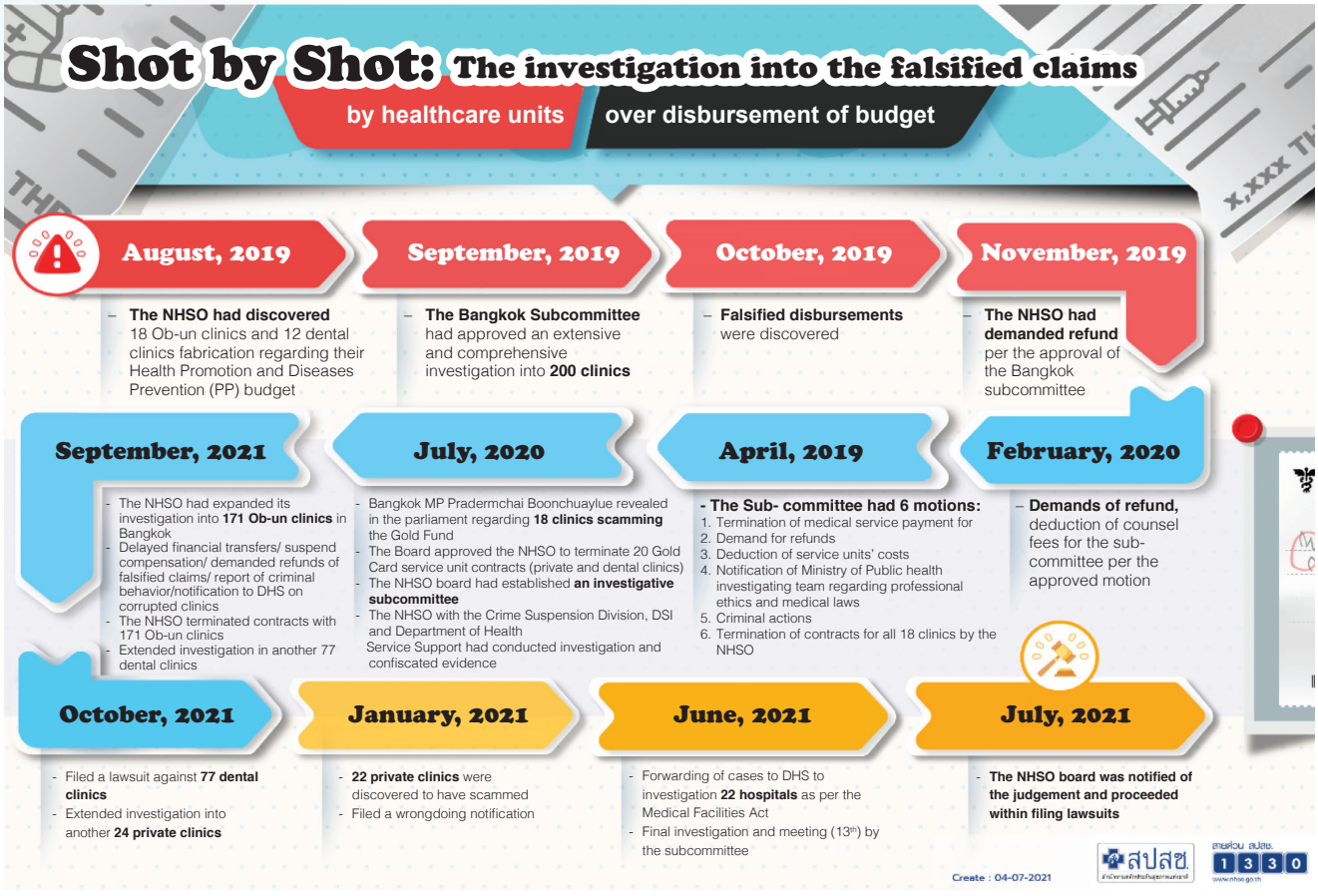
6

Investigation of submitted false claims from the health care units

In cases of healthcare units submitting false claims, the NHSO had discovered incompatibilities in 2020 leading to the establishment of a subcommittee, on 20th July, 2020, to investigate the falsification of healthcare claims. The subcommittee was presided by a legal expert of the NHSO including experts from external entities chairing the committee; the members had inspected operations and management of disbursements including quality of services of Ob-Un community clinic, which had falsified their claims of healthcare expenditure. The members had investigated the behaviors of offenders and stakeholders in all perspective consisting of civil, criminal, administrative including damages incurred.

The subcommittee had conducted their investigations in phases (Figure 3-5) and upon discovering incompatibilities, the subcommittee had notified the committee and the complaint office, which had penalized the investigating officer by suspending payment, requested a refund, notified relevant professional councils including cancellation of contracts.

Figure 3-5 Investigation of submitted false claims from the health care units



Since the cancellation of contract was a cancellation of a private clinic in Bangkok that caters to 2 million Gold Card members, the NHSO had prioritize approximately 700,000 – 800,000 individuals requiring continuous medication and treatment and had divided the beneficiaries into three groups: 1. Patients requiring in-hospital stay for surgeries, deliveries, dialysis were informed of their new service units by the NHSO, 2. Chronically-ill patients suffering from diabetes mellitus, hypertension including HIV -positive patients were to continuously receive medication and care from the 69 healthcare units in Bangkok as coordinated by the NHSO, and 3. General patients were considered as vacant beneficiaries as each of the individual can receive care from any public or private Gold Card registered healthcare unit, which will be reimbursed by the NHSO as per the NHSO guidelines.

Simultaneously, the NHSO had fast-tracked registration of new service units for citizens to choose and as for the re-registration of Ob-un clinic was proceeded under the conditions of no incompatibility as per the opinions of the legislative subcommittee under the National Health Security Board. Hence, when an application for NHSO Health Region 13 Bangkok arrives, there will be an inspection of all documents, which will be transferred to the NHSO's registration office for a secondary inspection ascertaining that all information fits the criteria; if any incompatibilities are found, the office will reject the application as a service unit.

After a year of investigating millions of disbursement documents regarding screening of metabolic disorders, the subcommittee had reported and summarized resolutions to the National Health

Security Board on 5th July, 2021. The summarization is as follows: findings of disbursement incompatibility/ disbursement against conditions/ falsified disbursements in 290 centers for health promotion and diseases prevention. The screening activities for metabolic disorders for the 2019 fiscal year was conducted in 176 community clinics, 35 private clinics including dental clinics with Bangkok; for 2019-2020 fiscal year, the screenings were conducted at 79 centers. These 2 cases amounted to a loss of 324 million baht and incurring other damages totaling to a loss of 691 million baht; the loss amount was notified and a committee was established for negotiations. The service centers were informed of the contract cancellation and termination as a service unit including providing evidence to the law agencies for healthcare and profession law regarding such conducts; as a criminal case, prosecution of all service units has been filed. The NHSO had additionally provided resolution and preventative guidelines for such disbursement issue of which the board had approved and further had forwarded witness and evidence to the National Anti-Corruption Center including adjusting operations and disbursements to prevent a recurrence in the future. The board had also had approved the restructuring of Bangkok's National Health Security subcommittee by terminating the current entire Bangkok NHSO's subcommittee including its working members since some of the members were owners of these service centers.

NHSO had already implemented the following measures as approved by the board:

1. Measures to prevent a recurrence from private sectors includes establishing a capacity register of service units and personnel, improve authentication system for beneficiaries, providers, and utilization of AI system for compensation check

2. Inspection of community clinics before registering as a contracted unit including revising the disbursements criteria, or Quality and Outcome Framework (QOF) including inspecting medical services statements that are disbursed in the form of investment budgets on the issue of payment diversity plus adjusting all payment claims to a single claim system

3. Develop and adjust laws, regulations, rules, relevant announcements specifically, in cases where there is a stakeholder as a board or a subcommittee member

4. Assessment of expenditures claims for metabolic disorders screenings from 2017-2020 including randomly auditing the disbursements of health promotion and disease prevention of private units in the metropolis and all Mithmitree clinics

5. Pursue actions against offenders of the National Health Security system

6. Pursue litigation claiming civil damages

In the prevention of "subrogating", the NHSO had adjusted its payment system to an "authentication payment system" in collaboration with Krugthai Bank using the mobile application, Pao Tung, where Bangkok citizens can register using their identification number. Consequently, the citizen will be informed directly of their scope of health promotion and disease prevention benefits, and if the individual accepts the benefit, a QR code will be used for authentication each time to validate their benefit, or use their own identity card to receive care at the most convenient location.

7 Obstacles and Challenges

The 2021 fiscal year had seen Thailand still managing the severe effects from COVID-19's second (December 2020), third (April 2021), and fourth (July 2021) outbreaks from new clusters rapidly wide-spreading to citizens resulting in the regression and slowing down of the economy and society. This situation was compounded by the world' economy that had not revitalize and was unstable. These circumstances were significant challenges to Thailand's public healthcare system where all sectors, including the Universal Coverage Scheme, had to adapt to rapid changes and various emergency situations. The adjustments were made particularly for citizens' well-being and efficient management of public healthcare including control of spread, screening, treatment plus surveillance of indirect effects on patients' medical care.

As per designations in the Section 26 (13) of the National Health Security Act 2002, the NHSO to report obstacles of the boards of Universal Coverage Scheme and Quality and Outcome Framework including draft an annual report for publication. The two obstacles faced by the boards are as follows:

7.1 Obstacles of National Health Security Board Implementation

1) Designing a financial mechanism that is fast, appropriate and can be adjusted to accommodate the COVID-19 pandemic including management of new systems, promotion of participation from all sectors comprising of public, private, citizens and various volunteer societies to the end goal of providing public healthcare access to citizens, protection from COVID-19 and prevention of financial burden during times of illness.
2) Managing the limited National Health Security Fund for sufficiency, appropriateness, effectiveness including creating a balance between expenditures for health promotion and diseases prevention and expenditures of treatment for illnesses that are expensive to the end goal of providing citizens with a good well-being and prevention of illnesses including for the sustainability of the Universal Coverage Scheme and for the general public health.
3) Controlling disbursements to be accurate, transparent and verifiable through a good and adequate audit system including designing the appropriate compensation and incentives for fair and comprehensive services.
4) Adjusting to the rapid changes in innovations and disruptive technology of which the public health system cannot yet keep up with due to limitations in knowledge, personnel, budgets, feasibility evaluation and related laws, or regulations.
5) Inability for certain groups of citizens such as the underprivileged, or vulnerable, groups including the poor in urban cities plus homeless individuals to gain access to appropriate benefits and care.
6) Inability to elicit participation from other sectors such as LAOs, civil societies, central and local health network partners including private hospitals due to the limitations in laws and regulations.

7.2 Obstacles of Health Service Standard and Quality Control Board Implementation

1) Controlling, regulating and promotion of quality of providers and networks including monitoring access to healthcare during the COVID-19 pandemic.
2) Inability to attain efficiency in the database system to monitor, evaluate and integrate between various agencies specifically, data regarding quality and outcome of treatment to be used as guidelines in the promotion of quality, standard, supervision and evaluation of treatment.
3) Creating awareness for citizens regarding their benefits and providers regarding their responsibilities to the Universal Coverage Scheme system to increase access and protection of rights.
4) Regulating, monitoring and promoting the quality of all sectors/ agencies on national and local level.

7.3 Challenges Moving Forward for Universal Coverage Scheme implementation in the Macro Level

The success of the Universal Coverage Scheme largely relies upon the cooperation and support from the government, policy-makers, the National Health Security board, the Quality and Framework board, all relevant organizations and networks, service providers, civil societies, private organizations, professional organizations including other governmental agencies with a unanimous goal of providing all Thai citizens with access to equitable healthcare and a sustainable universal coverage.
The 2021 fiscal year had faced with a macro level challenge impeding the development of the Universal Coverage as follows:

1) The severe spread of COVID-19 over a long period of tum had caused a continuous regression and slowdown od the economy and society affecting the lifestyles of individuals, communities and societies. Eventually, this had led to acute impoverishment for many individuals, the society became increasingly vulnerable and at risk of bankruptcy from illnesses including limitations from the National Health Security fund, simultaneous with the increasing public healthcare liability to prevent and resolve the pandemic. Therefore, it is still a challenge for National Health Security Fund to achieve efficiency and build fiscal flexibility including adjusting for a rapid disbursement to reduce risks and financial complications for service providers.

2) The rapid and unforeseen changes resulting from innovations and disruptive technology, the environmental changes, emerging diseases and epidemics have forced the public healthcare system to be prepared and flexible to adapt to the changing situations whether normal or emergency situations. It became apparent that an appropriate healthcare system needs to be developed in consistent with the New Normal lifestyle through the addition of telemedicine, or digital healthcare, for efficiency in treatment and prevent including organizing a variety of new services for better access specifically for the vulnerable group or other services that citizens have little access to sch as health promotion and disease prevention (PP).

3) Development of information system and Big Data including management an authenticating system for solicitation of services and Real Time inspection of disbursements including monitoring and evaluation (M&E) as important tactics in managing the National Health Security Fund. Furthermore, this will elevate the national public healthcare for citizens, providers and relevant agencies can utilize such data and share data to policymakers as empirical evidence in making the right policy decisions.

4) Upgrading health literacy and creating awareness for citizens particularly during the COVID-19 pandemic including media literacy to lead to behavioral changes and increase confidence in receiving COVID-19 vaccination and trust in the National Health Security System in payment of preliminary financial assistance to all Thai citizens suffering from COVID-19 vaccinations' side effects.

5) Primary Care and Community Health Centers are the foundations of Thailand public healthcare that must be strengthened including be prepared for expediting the adjustment of services that citizens do not have access to such as health promotion and disease prevention (P&P), other important illness to the end goal of reassuring citizens that undue financial hardships will not occur including ascertaining that citizens trust the services and promote for all citizens to have a family doctor.

6) The upgrading of the national health security must be consistent with the National Strategy and Country Reform (Revised Edition). In regards to the public healthcare category, the end goals are to create fairness and reduce inequality in all aspects, attain harmony between the national health security funds and other relevant funds, focus on all population groups to receive quality and standard healthcare that is fair and equitable including for aliens to have statutory health insurance without becoming a financial liability to the providers and without any health effects on society as a whole.

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