PROGRAM IMPACT ASSESSMENT

I. INTRODUCTION

1. **The Asian Development Bank (ADB) has been a major partner in the Philippines' economic development, poverty reduction, and social protection reform efforts with total cumulative commitments of $26.3 billion across 711 projects**.[1] This policy-based loan for the Philippines: Build Universal Health Care (Build UHC) Program provides technical assistance in the implementation of critical health system reforms in the country to achieve universal health care (UHC). The Philippines passed the Universal Health Care Act (UHC Act) in 2019,[2] a landmark legislation that aims to promote equitable access to essential healthcare services with an end goal of improving health outcomes and financial protection. The immediate implementation of critical health reforms in the UHC Act is now even more necessary. The coronavirus disease (COVID-19) pandemic has further exposed these longstanding challenges in the health system, particularly the limited infrastructure and weak referral systems.

II. MACRO-ECONOMIC CONTEXT

2. **In recent years until the onset of the COVID-19 pandemic, the Philippines was one of the most robust economies in the region**. From 2010 to 2019, the country's economy was growing around 6-7%. Gross domestic product (GDP) per capita has dramatically improved from $2,200 in 2010 to $3,330 in 2019 (in 2010 constant prices). The country had sound macro-economic fundamentals because of robust government spending supported by improved revenue performance. Poverty and unemployment rates have remarkably improved during the same period. The poverty incidence declined to 16.6% in 2018 from 23.3% in 2015.[3] The unemployment rate was at a record low; it declined from 5.1% in 2019 to 6.3% in 2015. Hence, the country was on track in achieving its medium-term targets.

3. **The COVID-19 pandemic has caused devastating severe health and economic strain in many countries including the Philippines.** The Philippine economy suffered its deepest contraction as GDP declined by 9.6% in 2020. This was largely driven by a sharp decline in private consumption, export, and gross capital formation. The economy was anticipated to grow by 4.5% in 2021, but this seems challenging given the reintroduction of lockdowns in the first quarter. The COVID-19 pandemic also had unprecedented impacts on jobs. During the height of the first lockdown in April 2020, unemployment rate surged sharply to 17.6% before showing some improvement but remained around 7.7% in May 2021.

III. HEALTH SECTOR CONTEXT

4. **The Philippines has seen improvement in the health sector, but progress remains slow.** The infant mortality rate, one of the most sensitive measures of population health, declined from 24.8% in 2010 to 21.6% in 2019. However, the rate of decline is relatively slower compared to other countries in the Association of Southeast Asian Nations (ASEAN) region. The slow improvement is exacerbated by the large socio-economic gradient in health outcomes. In 2018,

---

[1] Asian Development Bank (ADB). 2021. *Cumulative lending, grant and technical assistance commitments, 2020*. Manila.

[2] Philippine Congress. 2019. *Republic Act 11223: An Act of Instituting Universal Health Care for All Filipinos, Prescribing Reforms in the Health Care System and Appropriating Funds Therefor*. Manila.

[3] Philippine Statistical Authority. 2019. Proportion of Poor Filipinos was Estimated at 16.6 Percent in 2018. News release. 6 December.

the infant mortality rate among the poorest quintile is 3.5 times higher than in the richest quintile (31 vs 9 infant deaths per 1,000 livebirths).

5. **The slow improvement in health outcomes reflects longstanding challenges related to healthcare access.** According to the World Health Organization, the UHC Index score of the Philippines, a measure of access to essential healthcare services, is one of the lowest in the ASEAN region.[4] Viet Nam, for example, despite having lower income per capita than the Philippines, recorded a higher UHC index score.

6. **Development constraints.** Poor access to healthcare services is largely driven by three major constraints: (i) insufficient government financing and uncoordinated health purchasing; (ii) inadequate and fragmented health services; and (iii) weak health system information management and performance accountability at the national and local government levels. The outbreak of COVID-19 has further compounded these challenges and highlighted the importance of much-needed reforms to improve the quality of health services. The proposed program aims to improve health sector performance through addressing these constraints and ensure equitable access to quality health services for all Filipinos with financial protection.

7. **In 2019, the Philippines spent around ₱792 billion, with a 10-11% annual increase.** Of the total health spending, 47.9% are accounted for out-of-pocket expenditure (OPE), 42% for public spending (local and national government, and social insurance), and 10% for private insurance and other private sources. The high share of OPE and the low share of social insurance to health expenditures were attributed to the limited depth and breadth of the Philippine Health Insurance Corporation (PHIC) coverage. In the 2017 National Demographic and Health Survey, only 70% of Filipinos were PHIC members. The support value of PHIC, that is, the percentage covered by PHIC of the total cost incurred during a hospital stay, has hovered between 50% and 60% despite efforts to reduce private OPE and increase public spending.[5]

8. In recent years, the share of OPE has declined because the share of public spending has increased. While public spending has picked up in recent years because of health and fiscal reforms (e.g., sin tax law), it remains relatively low. The Philippine government spent around $50 per capita (or 1.5% of GDP) on health. Countries with robust UHC programs such as Thailand and Malaysia spend around $100 per capita. Public spending is critical in achieving UHC. In countries that have successfully implemented UHC (e.g., Thailand), public expenditures account for 80% to 90% of total health expenditures. The high level of OPE suggests that financial factors remain a major barrier to healthcare access. Every year, about 1.5 million Filipinos are pushed into poverty because of catastrophic OPE.[6] The low share of the Philippine Health Insurance Corporation (PHIC) together with fragmented sources of public spending weakened the purchasing power of PHIC leading to systemic inefficiencies. Also, fragmented sources of financing induce inequity. For a given level of revenues, a fragmented health system can redistribute less than it could if funds were managed in a larger source of financing pool. Hence, the system can obtain less financial protection and less equity in health spending than would be possible within the scope of the health system's overall resource envelope.

---

[4] World Health Organization (WHO). 2020. *UHC index of service coverage (SCI) (Universal health coverage)*. Geneva.

[5] K. Obermann, M. Jowett, and S. Kwon. 2018. The role of national health insurance for achieving UHC in the Philippines: a mixed methods analysis. *Global Health Action*. 11(1). doi: 10.1080/16549716.2018.1483638

[6] C. Bredenkamp and L. Buisman. 2016. Financial protection from health spending in the Philippines: policies and progress*. Health Policy and Planning: the journal on health policy and systems research*. 31(7). pp. 919-927.

Table 1: Share of Financing Sources, Philippines

(%)

Financing Scheme	2014	2015	2016	2017	2018	2019
Public spending[a]	36	40	40	40	39	42
Private Insurance	11	9	9	10	10	10
Household out-of-pocket payment	52	51	51	50	51	48
Total	**100**	**100**	**100**	**100**	**100**	**100**

[a] Public spending is the sum of local, national government, and social insurance.
Sources: Philippine National Health Accounts, Philippine Statistical Authority.

9. **Health expenditure remains to be directed towards hospitals.** Countries have adopted primary care integrated healthcare systems as critical elements of UHC reform. In 2019, hospitals account for about 42% of the country's healthcare spending. Primary care accounted for a small share (4%). The Philippines spent $12 per capita on primary care, relatively small compared to other ASEAN countries.[7]

10. **In addition to health financing challenges, issues on service delivery (e.g., scarcity and maldistribution of health facilities and human resources) hinder equitable and efficient provision of healthcare services**. About 50% of the Philippine population do not have access to rural health units or hospitals within 30 minutes. In 2018, there were only 1,200 licensed hospitals in the country. The current bed to population ratio (1.2 bed per 1,000 population) is comparable to the poorest countries in the world.[8] Health services are delivered in a decentralized system, the municipalities (n=1,400) and provinces[9] (n=115) are expected to provide health services. They deliver and finance primary healthcare services through primary care facilities that is, rural health units (RHUs) and barangay health stations (BHSs). While provinces operate community and provincial hospitals, the national government sets standards and provides grants and subsidies to local governments. In parallel with the public system, the private sector operates clinics and hospitals. This fragmented health governance structure between province and municipality and the lack of integration and/or coordination between public and private lead to inefficiencies.

11. **The adoption of eHealth solutions remains limited.** Only one-third of RHUs use electronic medical records. A majority of RHU and/or health centers remain non-compliant with electronic medical records requirements of PHIC. The lack of integrated health information systems in health facilities exacerbates inefficiency in the delivery of healthcare services and impedes evidence-based decision making.

IV. RATIONALE OF THE REFORMS

12. **The UHC Act of 2019 addresses health system challenges** (paras. 4-11)**.** Based on 2017 National Demographic Health Survey (NDHS), only 70% of Filipinos have PHIC membership. In the UHC Act, all Filipino citizens are automatically enrolled in PHIC (100%). For the government to sustain the expansion of health services, it must mobilize and generate resources through tax reforms. Other critical health financing reforms include provider payments reforms in PHIC (i.e., the shift from case payments to diagnosis-related groups (DRGs) for paying inpatient care services and capitation payment for outpatient care), and consolidation of different public financing sources (i.e., pooling). These provisions aim to improve the strategic purchasing

[7] Estimates were cited at the Philippine Health Facility Development Plan 2020–2040. Government of the Philippines, DOH. 2020. *Philippine Health Facility Development Plan, 2020–2040*. Manila.
[8] The average bed to population ratio in Sub-Saharan Africa is 1.2 per 1,000. In upper income countries, the average is 4.
[9] Includes highly-urbanized cities.

power of PHIC and instill optimal behavior among health providers. Combining different sources of financing rather than keeping them in separate funds has been emphasized by international organizations such as the World Bank and the World Health Organization (WHO).[10]

13. In addition to health financing, sustained capital investments are needed to reduce the huge gap in health infrastructure (e.g., BHSs, RHUs, and hospitals) and health human resources as envisioned in the 2020–2040 Philippine Health Facility Development Plan (PHFDP) and Health Human Resource Masterplan. The PHFDP is anchored on the broad health service delivery reform in the UHC Act, which includes the creation of primary care oriented and integrated care through province- or city-wide health care provider networks (HCPN). Municipalities within provinces must coordinate and integrate to form an HPCN. Public and private health facilities are integrated in the network providing coordinated healthcare services. The integration of care across level and ownership entails coordination of both clinical and non-clinical (e.g., interoperability of electronic medical records) functions of health facilities within HPCN, which only happens if abovementioned financing incentives and reforms are in place.

V. PROGRAM POLICY REFORMS

14. **The reforms are comprehensive and system-wide.** The program identifies three reform areas: (i) sustainable financing and strategic purchasing for UHC; (ii) integrated delivery of quality health services; and (iii) information management and performance accountability for UHC. These three reforms complement each other in achieving the country's overall health system goal; they do not function in silos. Without sufficient and sustainable public financing (reform area 1), it is challenging to achieve an integrated healthcare system (reform area 2). An important prerequisite of an integrated care is administrative and technical integration among healthcare facilities, that is, interoperability of health information and data (reform area 3).[11]

15. **Reform area 1: Sustainable financing and strategic purchasing for UHC.** This reform area ensures universal health care, higher fiscal space or financing for health, and a more strategic purchasing of healthcare services. Ensuring universal coverage is achieved by increasing PHIC coverage especially among vulnerable population and expanding health insurance benefits, particularly primary care. However, expansion of universal coverage requires more government resources. This can be achieved by mobilizing more domestic resources through earmarking of excise taxes from tobacco, alcohol, and sugar-sweetened beverage. This reform area includes strategic purchasing of health services by pooling different health financing sources into a single fund through the creation of a special health fund at the province- and city-wide health systems,[12] which will pool local financing for UHC into a single fund to increase purchasing power and reduce inefficiencies.

16. **Reform area 2: Integrated delivery of quality health services.** This reform area focuses on supply-side. It ensures that there is adequate number health human resources and resilient health facilities. These could be achieved by expanding and implementing the Doctor Para sa Bayan Law and expanding and upgrading health facilities under the updated PHFDP. In

[10] P. Smith and S. Witter. 2004. Risk Pooling in Health Care Financing: The Implications for Health System Performance. *Health, Nutrition and Population (HNP) discussion paper, Open Knowledge Repository*. World Bank, Washington DC; and WHO. 2000. *The world health report 2000: health systems: improving performance*. Geneva.

[11] See UHC Act Implementing Rules and Regulation which identifies different integration of financing, administrative and technical aspects of the health service delivery.

[12] Province- and city-wide health systems are collectively an integrated health system comprising provinces, component cities, and municipalities with technical supervision by the provincial health board (for provinces), and by city health boards (for city-wide health systems).

addition, the reform area is complemented by adoption of telemedicine, improvement of licensing rules and regulation in health facilities, improvement in the quality and capacity of health workers in implementing primary care, and adoption of health promotion strategic framework.

17. **Reform area 3: Information management and performance accountability for UHC.** This reform area focuses on improving the decision-making process and accountability in the healthcare sector through data. This includes expansion of electronic claims in PHIC and use of electronic medical records. Several governance reforms are also included under this reform area.

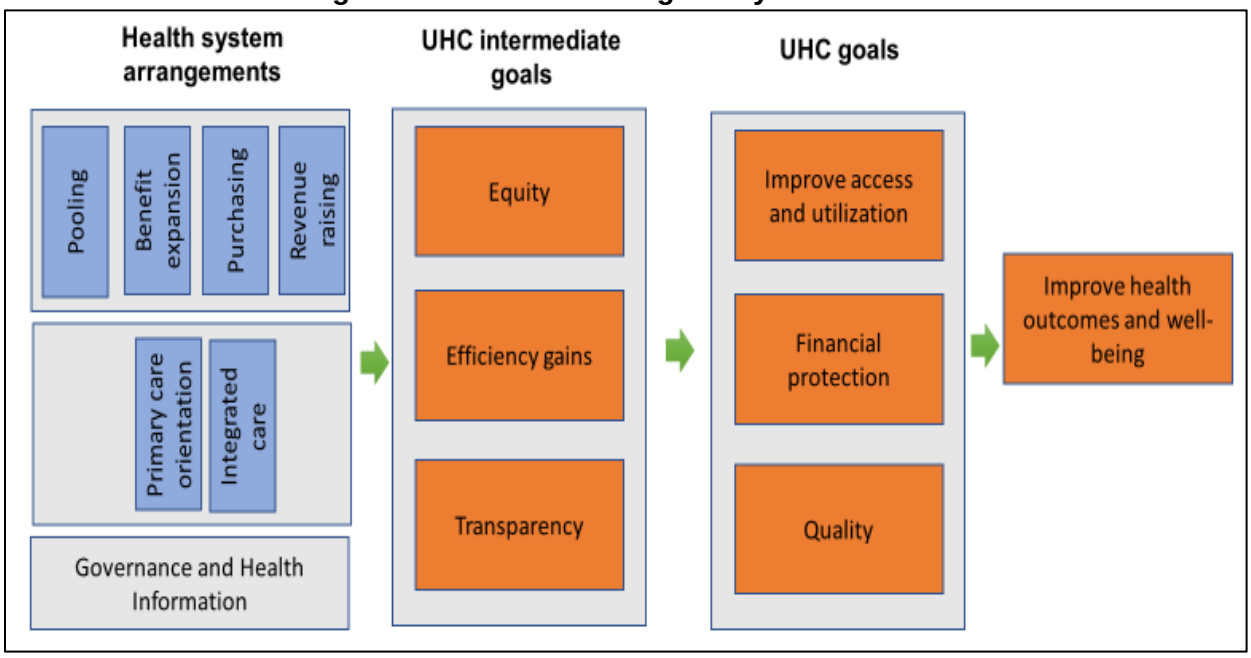
18. **The DOH's Medium Term Expenditure Framework estimated the resource requirements in implementing UHC.** The DOH's has three cost scenarios depending on the institutional arrangement and the extent of UHC roll-out. On average, the estimated requirement to implement UHC is around ₱370 billion (or $7.4 billion) for 2021. The total medium-term (2021-2023) requirement is around ₱1,276 billion ($25 billion). Unfortunately, the 2021 budget only provided $3.95 billion for UHC financing. For the 2022 budget, $5.5 billion is being requested for UHC and although this is smaller than $7.4 billion, it will be around 40% higher than 2021 if this budget request is approved and enacted.

VI. TRANSMISSION CHANNELS

19. **The program encompasses multiple reforms. Hence, it is challenging to predict the impact of these broad-based reforms ex-ante because they are highly interlinked**. These reforms are complementary and do not work in silos. To describe the impact these reforms, the health system framework from WHO was used (see Figure 1).

20. **The goal of any health system is to improve health outcome and well-being** (e.g., improve infant mortality). This could be achieved through the UHC goal, that is, improve universal coverage and access to basic and essential healthcare services, improve financial protection, and improve the quality of healthcare services. To achieve the UHC goal, it is critical to achieve intermediate goals, which are improving equity, efficiency, and transparency and/or accountability. These intermediate goals can be achieved through reforms in financing arrangements, service delivery arrangements, governance, and health information systems.

Figure 1: Health Financing Policy Framework



UHC = universal health care.
Source: World Health Organization.

21. The activities in the program were classified under each arrangement (Table 2).

Table 2: Reform Areas

Health financing arrangements	**Activities**
Pooling	Consolidate public sources of financing for health; create special health funds
Benefit expansion	Expand primary care package (Konsulta) and population coverage, and services to cover diagnostic tests for women such as breast, cervical, and ovarian cancer screening and maternity care and deliveries
Purchasing	Adopt provider payment reforms (i.e., shift to DRG and global budgets)
Revenue raising	Earmark and mobilize domestic revenues
Health service delivery arrangements	
Primary care orientation	Expand capital investments in primary care facilities (i.e., PHFDP); primary care workforce; and health promotion strategies
Integrated care	Create the Health Care Provider Network
Health workforce	Expand the supply of health workers with the Doktor Para sa Bayan Law
Health information and governance arrangements	
Interoperable national health information system	Facilitate eHealth system in health facilities

DRG = diagnosis-related groups, PHFDP = Philippine Health Facility Development Plan.
Source: Asian Development Bank.

22. **Health financing reforms include these functions: pooling, benefit expansion, purchasing, and revenue raising.**

(i) **The purpose of pooling is to spread financial risk across the population so that no individual carries the full burden of paying for health care**. When pooling is fragmented, this sets a limit on the redistribution and on spreading financial risk, which cause health system inefficiency and inequity. Also, fragmented health financing sources will disincentivize strategic purchasing of PHIC to occur. The efficiency gains of integrating the different sources of financing leverages the purchasing power of PHIC to negotiate for competitive prices and volume.

(ii) **The expansion of health insurance coverage and benefit package (e.g., outpatient benefit/primary care package) will increase the demand for healthcare services and decrease OPE especially among the poor**. Health insurance facilitates access to health care that otherwise would not be affordable. It allows for the initiation of care that otherwise would not take place at all. However, health insurance expansion especially among vulnerable population (e.g., poor, women, children) must be complemented with supply-side reforms (e. g., health infrastructures, health workforce) otherwise health facilities cannot cope up the growing demand for healthcare. Healthcare is generally inelastic. Most estimates of price elasticity of demand for healthcare services are about -0.2. However, there is a growing literature in low and middle-income countries that the poor are more elastic and more responsive to price.[13] Hence, we expect that the reduction in price of healthcare through health insurance expansion will lead to higher demand and use of healthcare services among the poor.

(iii) **Purchasing refers to the allocation of funds to public and private health care providers for the services they render.** Adoption of strategic purchasing means to align funding and incentives with desired outcomes. Under the reform area, this includes provider payment reforms, (e.g., shift to global budget and DRGs). DRG as a hospital payment has been widely adopted internationally with the explicit objective of improving efficiency. Hospitals are incentivized to increase activity and minimized costs therefore improve efficiency.[14] Also, it could be designed for healthcare provider to deliver health services more efficiently and equitably.

(iv) **Domestic resource mobilization is critical in ensuring health programs are sustainably financed**. Reprioritizing national and local government budgets towards health and identifying new sources of health financing (e.g., earmarking of new sin tax revenues) are common examples of resource mobilization. The introduction of new tax measures towards unhealthy products (e.g., tobacco, sugar drinks) does not only increase revenues for health, but also improve population health of vulnerable population.

23. **Health service delivery reforms include the adoption of integrated and primary care.**

---

[13] D. Qian et al. 2009. Determinants of Health Care Demand in Poor, Rural China: The Case of Gansu Province. *Health policy plan*. 24 (5). 324-34. 10.1093/heapol/czp016.

[14] C. Bradenkamp et al. 2020. *Transition to Diagnosis-Related Group (DRG) Payments for Health: Lessons from Case Studies*. World Bank: Washington DC.

(i) **The integration of care enhances gatekeeping and referral system among health facilities and reduced unnecessary hospital admissions.** Gatekeeping system is an effective means for the coordination of healthcare services because it guides patients to the most appropriate providers serving as the entry point to the health care system; duplication of functions among healthcare facilities is also reduced. Gatekeeping prevents unnecessary and costly visits to specialists or hospitals. However, these could only happen if their robust primary care with strong health promotion component and well-integrated health information system or electronic medical records in health facilities.

VII. PROGRAM BENEFITS

24. While reform programs can yield enormous benefits, the assessment was limited only to the following outcomes as guided by the framework: (i) improvement on access to essential healthcare services, (ii) reduction of OPE (financial protection), and (iii) reduction of health spending because of cost-saving and greater health system efficiency. The analysis follows the approach recommended for policy-based loans[15] by ADB. An effective health system reform should accompany health insurance expansion with other programs such as higher capital health infrastructure investments, improved health service delivery (e.g., integration of care), and improved health human resource capacity and health governance. However, given the complexity of estimating their joint effects on the aforementioned outcomes (e.g., reduction in OPE and improved healthcare access), the estimable impact of the program was only through health insurance expansion. Hence, the estimated impact could be at the lower end and could be higher if we include supply-side and governance reforms.

25. **Improvement in access to essential healthcare services.** There is overwhelming empirical evidence on the impact of health insurance expansion on healthcare access. The World Bank has a systematic review of evidence on the impact of UHC on access to basic healthcare services.[16] The expansion of PHIC's breadth (population coverage) and depth (more inpatient and primary care/outpatient benefits) will remove financial barriers and increase demand for healthcare services in both public and private facilities. As an illustrative example, the impact of expansion of PHIC on primary care benefits on the use of outpatient care services and the impact of PHIC coverage on skilled birth attendant (SBA) were assessed. The expansion of health insurance is expected to have a broad-based impact on different types of health services not only limited to these two indicators.

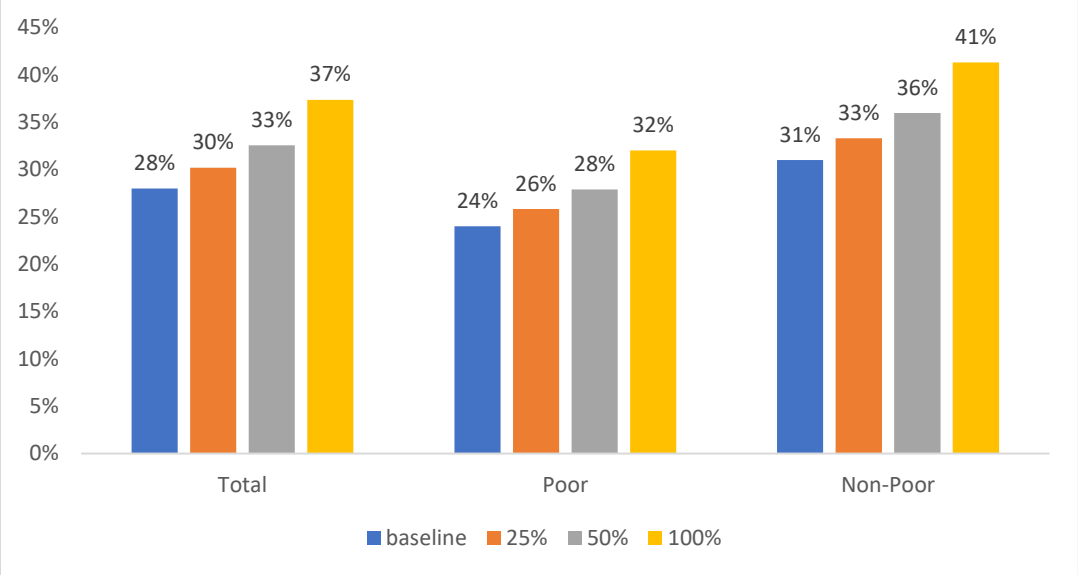
(i) **Expansion of existing PHIC primary care benefits will increase outpatient visits.** Currently, only 2.4% of PHIC members who need care are likely to use PHIC to finance their outpatient services.[17] The low effective coverage for primary care services is expected despite 70% of the population being PHIC members. This is because of the limited depth of the PHIC primary care package as it only covers a few number conditions and services including specialized diagnostics and services). If PHIC claims are examined, less than 1% account for primary care package. The primary care package is only limited to government facilities and does not include private primary care facilities. Note that almost 50% of

[15] ADB. 2020. *Guidance Note for the Economic Assessment of Policy-Based Lending*. Manila.
[16] World Bank. 2013. *The Impact of Universal Coverage Schemes in the Developing World: A Review of the Existing Evidence*. World Bank: Washington DC.
[17] According to National Demographic and Health Survey 2017, only 2.4% of those who availed outpatient services in the last 30 days used PHIC to finance their visit.

outpatient visits are typically sought in private facilities.[18]

(ii) If we hypothetically increase the effective coverage to 25%, 50%, and 100%, what is the expected increase health-seeking behavior among those who have existing conditions (e.g., non-communicable diseases and infectious diseases)? Here, the increase in effective coverage means that PHIC members who need care could now use PHIC to finance their outpatient visits. The expansion means PHIC will offer the primary care package to existing private and government facilities. With these assumptions, ADB estimates that the percentage of the population who need care are more likely to seek care—from 28% to as high as 37%. Arguably, this increase could be conservative because supply-side reforms (e.g., building more primary care facilities) are not included in the analysis.

Figure 2: Potential Impact of PHIC Primary Care Expansion of Probable Outpatient Visits[a]



PHIC = Philippine Health Insurance Corporation.
[a] The outcome variable is the probability of those who need care (or those who are ill) to visit primary care facility (both public and private) in the last 30 days.
Source: Asian Development Bank.

Table 3: Parameters Used in the Projection of Impact

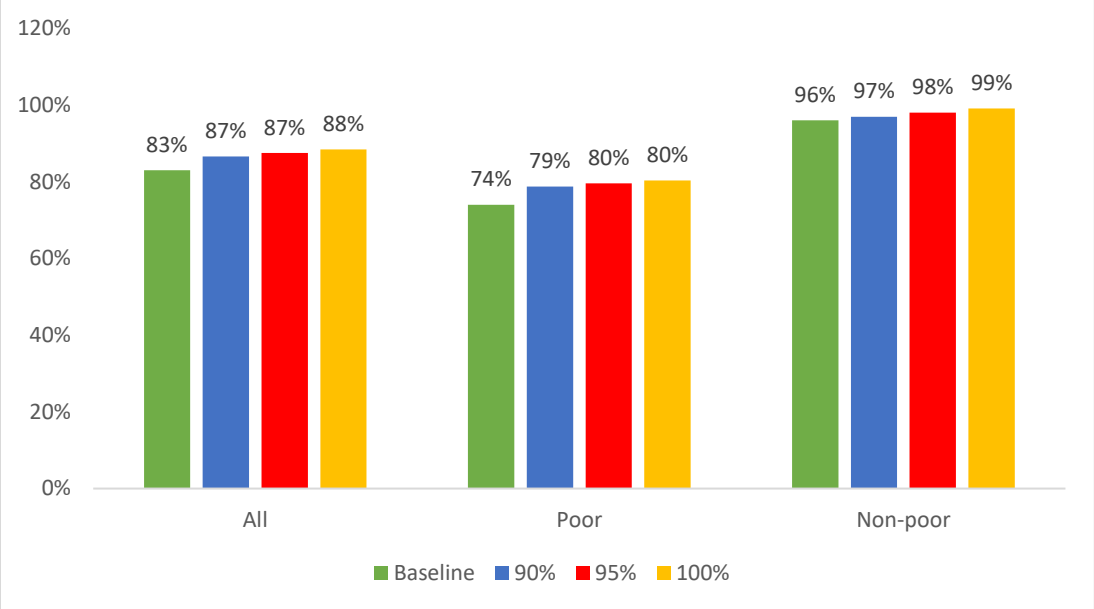
	Estimated odds ratio	Effective PHIC membership (primary care)	Assumed effective membership			Potential impact fraction (effective coverage of primary care in PHIC)		
						25%	50%	100%
All	0.66	2.4%	25%	50%	100%	4.50%	9.30%	19.10%
Poor	0.66	2.9%	25%	50%	100%	4.90%	10.30%	20.90%
Non-poor	0.66	3.5%	25%	50%	100%	4.00%	8.50%	17.60%

PHIC = Philippine Health Insurance Corporation.
Source: The odds ratio used is derived from a study in the United States examining the impact of health insurance expansion on the use of primary care services. M. Carlson, J. DeVoe, and B. Wright. 2006. Short-Term Impacts of Coverage Loss in a Medicaid Population: Early Results From a Prospective Cohort Study of the Oregon Health Plan. *Animals of Family Medicine*. 4(5). pp. 391-398.

[18] V. Ulep et al. 2020. Primary Health Care for Noncommunicable Diseases in the Philippines. *PIDS Discussion Paper Series No. 2020-39*. Quezon City: PIDS.

(iii) **Expanding PHIC coverage will increase deliveries by SBAs. Around 1.5 million births are recorded every year.**19 Currently, 84% of children are delivered by SBAs such as physicians, nurses, and midwives. The rest are delivered by traditional birth attendants. Expanding the current PHIC coverage from 71% to 90 to 100% will increase deliveries by SBAs from 83% to 88% with larger impact among the poor. Under the UHC Act, the government aims to cover the entire population with PHIC through premium subsidy for those who cannot afford. As empirical evidence has shown in other countries, the magnitude of impact of health insurance expansion on utilization is higher when health infrastructure is widely available. Therefore, the impact of health insurance expansion on SBA deliveries could be significantly larger if coupled with supply-side reforms.

Figure 3: Potential Impact of PHIC Coverage Expansion on Skilled Birth Attendant



PHIC = Philippine Health Insurance Corporation.
Source: Asian Development Bank

Table 4: Parameters Used in the Projection of Impact

	Estimated odds ratio	Effective PHIC	Assumed effective membership			Potential impact fraction (PHIC Coverage)		
						90%	95%	100%
All	0.81	71%	90%	95%	100%	4.3%	5.4%	6.5%
Poor	0.81	61%	90%	95%	100%	6.4%	7.5%	8.6%[20]
Non-poor	0.81	86%	90%	95%	100%	0.9%	2.1%	3.3%

PHIC = Philippine Health Insurance Corporation.
Source: Odds ratio was calculated using logistic regression of the National Demographic Health Survey 2017. The dependent variable is the skilled birth attendant (1=Yes. 0=No) and main independent is PHIC insurance. Socio-demographic and economic variables are controlled in the model.

[19] Based on Philippine Statistical Authority (PSA)'s vital registry for 2020.

[20] The price elasticity of healthcare is higher for the poor than for the rich. Hence, we expect that the reduction of price of healthcare through health insurance expansion will lead to higher demand among the poor.

26. The moderate increase of SBA rates will have tremendous impact on health outcomes, particularly in the reduction of neonatal mortality in the country. For example, a systematic review of evidence suggests that skilled birth attendants and facility-based delivery significantly reduces neonatal mortality by an odds ratio of 0.70.[21]

27. **Reduction of out-of-pocket health expenditure.** In addition to healthcare access, expansion of health insurance coverage and benefits will lead to lower OPE.[22] There are numerous empirical studies in systematic reviews that examine the impact health insurance on OPE. While health insurance significantly reduces OPE in general, the magnitude largely depends on the design and comprehensiveness of the benefit package. For instance, a study suggested that the People's Republic of China's health insurance system has been effective in lowering inpatient OPE, but OPE in general remains a challenge because of shallow outpatient or primary care coverage.[23] By contrast, another study found that the expansion of coverage in Thailand (which offered both inpatient and outpatient) was associated with reduced OPE and catastrophic expenditures by one-third.[24]

28. To illustrate the reduction of OPE because of health insurance expansion, a multiple regression model using the 2017 NDHS was conducted to determine the magnitude of impact of PHIC expansion on hospital spending among the poorest 40% in the country (i.e., mothers belonging to the bottom 40% of the wealth distribution).[25] Table 5 shows the marginal decline in inpatient OPE among the poor when health insurance expansion is implemented. While the analysis only examined OPE from hospital care, the expansion primary care/outpatient benefit in PHIC is expected to have a huge impact in the reduction of OPE. Currently, OPE is driven largely by outpatient (non-hospital spending) at 42%. This is because PHIC has a limited outpatient and/or primary care benefit package.

Table 5: Impact of PHIC Expansion on Out-of-Pocket Among the Poor

(₱)

	Average OPE	Marginal effects on OPE	95% Confidence Interval
Inpatient care (bottom 40% of women)	9,900	(4,574.7)	(7,714.9) - 1,434.4

( ) = negative, OPE = out-of-pocket expenditure.
Source: Analysis using the National Demographic and Health Survey 2017.

29. **Benefits from efficiency gains of integrated care and primacy care.** Empirical studies from different periods and settings have examined the impact of integrated care and primary care healthcare costs. The WHO released a document on the economic case of primary care.[26] Most studies examined cost savings or avoided cost, which were derived from reduced hospital and

[21] G. Tura et al. 2013. The effect of health facility delivery on neonatal mortality: systematic review and meta-analysis. *BMC Pregnancy Childbirth 13*. 18 (2013).
[22] E. Spaan et al. 2012. The impact of health insurance in Africa and Asia: a systematic review. *Bull World Health Organ 2021*. Geneva: World Health Origanization.
[23] A. Zhang, Z. Nikoloski, and E. Mossialos. 2017. Does health insurance reduce out-of-pocket expenditure? Heterogeneity among China's middle-aged and elderly. *Social Science & Medicine*. 190. 11-19. 10.1016/j.socscimed.2017.08.005.
[24] S. Limwattananon et al. 2013. Universal coverage on a budget: impacts on health care utilization and out-of-pocket expenditures in Thailand. *Tinbergen Institute Discussion Paper, TI 2013-067/V*. e
[25] Wealth distribution is based on the wealth index in the NDHS developed by Philippine Statistical Authority.
[26] WHO. 2018. *Technical Series on Primary Health Care* – Building the economic case for primary health care: a scoping review. Geneva.

fewer in-patient days. Median cost saving of 20% was reported.[27] There were also 22% lower healthcare costs for a specific chronic condition or disease.[28] Similarly, there was a 27% decrease in healthcare costs, which yielded a return on investment of 3.37.[29] In addition to cost savings, empirical studies suggest the positive impact of integrated care on health outcomes and quality of care. In a systematic review which looked at the relationship of integrated care and quality of health outcomes such as mortality rates, and patient satisfaction, almost all studies (24 of 25) have recorded positive impact of quality of care.[30]

30. **Another source of efficiency gain is the consolidation of financing sources.** While it is challenging to measure the potential impact of this reform, the recent experiences of European countries suggest that it made a significant dent on health system performance. For example, Latvia, Estonia, Lithuania, and Poland facilitated reforms by progressively reducing the number of fund source in facilitated national pooling of funds. Such approach increased the size of the pool, which later improved re-distribution and enabled efficiency gains in the administration of health system. The Estonian experience particularly suggests that when these measures are combined with effective purchasing methods, gains in financial protection and efficiency can indeed be realized.

31. **Effects of the reforms**. In summary, the proposed reforms under the UHC program include multiple yet complementary demand-side (e.g., expansion of health insurance coverage and benefit) and supply-side interventions that are expected to improve healthcare access especially without increase in out-of-pocket health expenditure. This assessment provided ex-ante analysis on the potential impacts of some components of reforms on healthcare access. The increase access to essential healthcare services is expected to improve overall health outcomes of Filipinos. While the analysis is ex-ante, real-world experiences of countries that instituted comprehensive and bold UHC reforms have enjoyed significant improvement in health outcomes. For instance, the comprehensive reform in Turkey which expanded health insurance to the entire population coupled with supply-side reforms focusing on primary care led to a large reduction in mortality among vulnerable populations.[31] Thailand also offers an example of positive impacts of UHC reforms.[32]

[27] P. Langhorne et al. 2005. Early supported discharge services for stroke patients: a meta-analysis of individual patients' data. *Lancet*. 365:501–506.

[28] J. Sidorov et al. 2002. Does diabetes disease management save money and improve outcomes? A report of simultaneous short-term savings and quality improvement associated with a health maintenance organization-sponsored disease management program among patients fulfilling health employer data and information set criteria. *Diabetes Care 2002*. 25:684–9.

[29] J. W. Snyder et al. 2003. Quality improvement and cost reduction realized by a purchaser through diabetes disease management. *Dis Manag 2003*. 6:233–41.

[30] W. Hwang et al. 2013. Effects of Integrated Delivery System on Cost and Quality. *American Journal of Managed Care*. 19 (5): e175–84.

[31] R. Cesur et al. 2017. The value of socialized medicine: The impact of universal primary healthcare provision on mortality rates in Turkey. *Journal of Public Economics*. 150. pp. 75-93.

[32] D. Hughes and S. Leethongdee. 2007. Universal Coverage in the Land of Smiles: Lessons from Thailand's 30 Baht Health Reforms. *Health Affairs*. 26 (4).