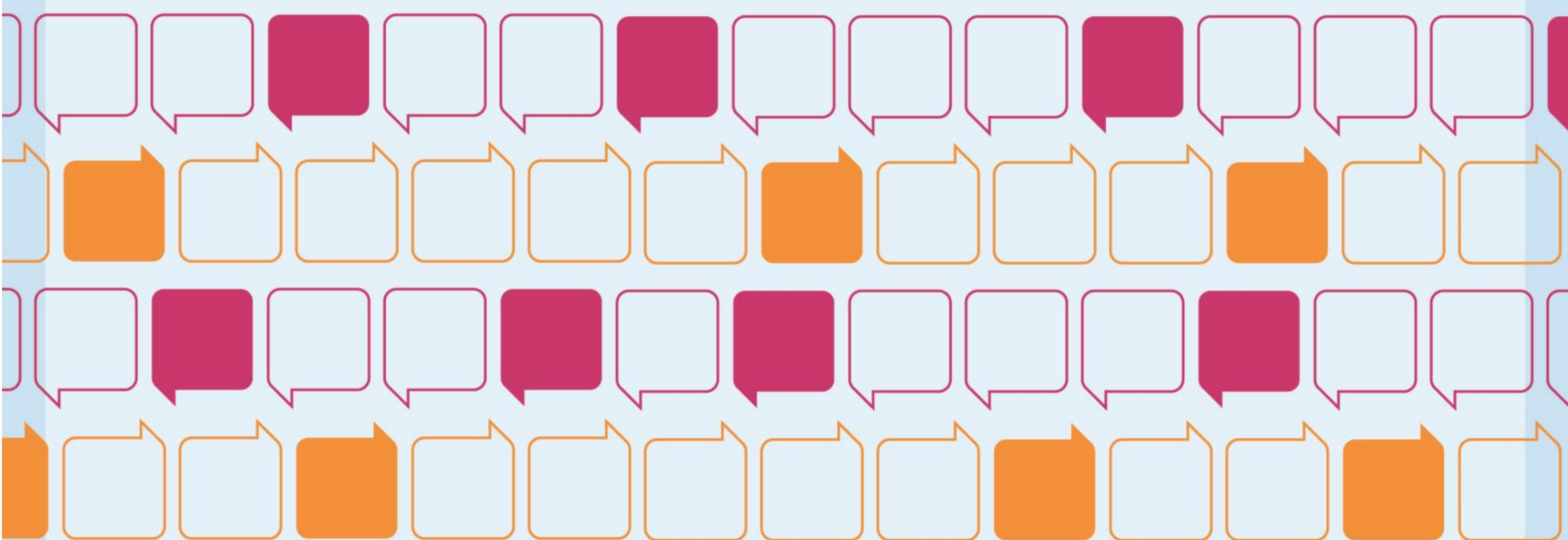
CONSIDERATIONS FOR **MANAGING IMMUNIZATION PROGRAMS WITHIN NATIONAL HEALTH INSURANCE**



LNCT
Learning Network for Countries in Transition

Introduction

Cutting across all the health-related Sustainable Development Goals (SDGs) is the goal of Universal Health Coverage (UHC), defined by the World Health Organization as all people having access to quality health services when and where they need them, and without financial hardship. To achieve and sustain UHC, many LNCT countries have introduced or are considering the introduction of a national health insurance system (NHI) to reduce out-of-pocket expenditures, ensure universal coverage of priority services, and improve the strategic purchasing of health services.

NHI can bring benefits, but it can also bring unintended consequences, especially for immunization and other public health programs which may or may not be in the benefits package. This brief will present and discuss the various options countries may consider, with respect to immunization program management and financing, when NHI is part of the health system.

NHI refers to a way of organizing health financing that relies completely or heavily on public funds (including earmarked payroll taxes, other dedicated taxes, and budget transfers). It pools risks and defines specific entitlements for those covered, and financing of services is separated from provision. *Box 1* provides definitions of key terms and explains why we are using the term "national health insurance" over "public health insurance" or "social insurance." It is important to recognize that NHI is not a goal in and of itself, and that there are many ways to organize health financing to achieve UHC.

While NHI brings the expectation of increased funding for the health sector, especially if a dedicated funding stream is created for health insurance (such as from a Value-Added Tax, or VAT, or employer/employee contributions, or a tobacco tax), even these dedicated funds can be offset by reductions in other parts of the health budget. The Ministry of Finance may see the increase from the dedicated funding stream and make cuts elsewhere. Even when dedicated funds provide a robust funding stream for the NHI system, budget pressures often emerge, particularly when the benefits package is overpromised relative to revenues or when provider payment incentives encourage inefficient service utilization.

When NHI is created alongside a traditional budget-funded health care system, there can be fragmentation in financing and confusing payment incentives for providers. Sometimes there is an over-emphasis on curative services, both in the benefits package and in what providers deliver, and public health and prevention activities can be crowded out. This can be exacerbated when there are multiple NHI systems serving different populations with different benefit packages. Some population groups, services, and functions might "fall through the cracks." Preventive services may be left out of the benefits package to allow more direct government control.

BOX 1. KEY TERMS RELATED TO NHI

***Coverage scheme*.** A generic term used to describe different types of programs to provide access to services with financial protection, including national health insurance and community-based health insurance.

***Public health insurance scheme*.** A term that can be used interchangeably with national health insurance system.

***Social health insurance*.** A health insurance scheme that is traditionally tied to employment.

***Private voluntary health insurance*.** A health insurance scheme that does not rely on mandatory participation and contributions. It is typically managed by a private entity, charges premiums related to health risk, and has fewer regulations in terms of the benefits package.

Inclusion of immunization services in the benefits package

While NHI offers opportunities, there are also risks, particularly for a priority public health program such as immunization. When thinking about financing immunization in a health system in which NHI is being

established or expanded, countries must first consider whether to include immunization services in the NHI benefits package. If immunization is included in the benefits package, countries must determine how the functions of the national immunization program will be split across the Ministry of Health (MOH) and the NHI administrator. Certain functions may shift to health insurance, while other functions like policy and standard setting, can remain the purview of the MOH. Additionally, if the current system (i.e. MOH provision of immunization services) is working well, it is important to consider whether the added value of including immunization in the benefits package outweighs potential risks from introducing unnecessary complexity into an important public health function. There is no "one size fits all" approach to NHI and immunization, and countries may consider the following in designing their NHI system and the roles of the MOH and NHI respective to immunization.

1. **Considerations of NHI coverage**. The coverage of NHI needs to be considered when evaluating whether immunization services should be in the benefits package. The risks to immunization programs are greater (and probably outweigh the benefits) at low levels of NHI coverage. If immunization services are in the benefits package, the government needs a back-up plan to ensure the uncovered population can receive immunization services for free until near 100% insurance coverage is reached, and that both health providers and the population are aware of this entitlement.
2. **Considerations of NHI and MOH budgets.** NHI may not actually result in a significant increase in health resources. It could be risky to make immunization dependent on a scheme that may have increasing budget constraints over time. Further, as additional vaccines become available, decisions regarding their adoption would impact the financial sustainability of NHI. That said, if immunization is outside of the insurance scheme, remaining with the MOH, it could still be impacted if the MOH budget is cut to reallocate resources to the insurance scheme.
3. **Considerations of user fees.** In some countries, NHI services require co-pays. If immunization is included in the benefits package, and co-pays are applied, it could discourage immunization. Therefore, countries may consider exempting immunization from co-pays.
4. **Considerations of reaching vulnerable groups and demand generation.** The government may consider special provisions for supply-side gaps and services for remote and vulnerable populations. NHI providers might have challenges accessing hard-to-reach areas and, if possible, the NHI administrator may need to contract with NGOs with access to these areas. Alternatively, the MOH may be better positioned to access populations in these areas if they have the expertise and capacity to effectively employ outreach strategies. Even when immunization services are included in the benefits package and there is strong commitment to immunization, program elements can get lost in the transition, especially for elements such as communications and advocacy.
5. **Consideration of missed opportunities.** The government may consider whether including immunization in the benefits package may result in inefficiencies or missed opportunities. For example, if deliveries are included in the benefits package, but Hepatitis B birth vaccine dose is not included, that is a missed opportunity. Design of the system should avoid, where possible, to create barriers or increase the burden on population by requiring them to make extra trips to health providers.

Regardless of whether the government decides to include immunization in the NHI benefits package and how the respective roles of the MOH and NHI administrator are defined, the following should also be considered.

- **Considerations of clarity on who is doing what.** Whether immunization services are the responsibility of the MOH, NHI, or a split, countries must ensure that immunization financing and service delivery responsibilities are clear and that people understand where immunization services can be obtained and how they are covered so immunization is not neglected by the financing system or providers.
- **Considerations for provider payment considerations.** Recognizing the public health importance of immunization, many insurance systems that include immunization services in the benefits package have tried to introduce incentives for providers to achieve high immunization coverage in payment systems. While these approaches can create important signals about the priority of immunization and additional financial incentive, they often do not lead to significant changes in immunization coverage rates and require strong information and monitoring systems. Getting the underlying payment systems right (e.g. adequate funding for capitated payments, for example) and submitting feedback to providers on their achievements, may be more effective than more sophisticated incentives. Additionally, it may be difficult to design sophisticated payment systems in the early stages of implementation when the NHI should simply aim to ensure that providers are adequately paid and avoid paying providers in multiple, uncoordinated ways.

Among LNCT countries, there are models where the MOH/provincial governments are carrying out all immunization functions including financing and service delivery (Ghana and Vietnam), where immunization services are in the benefits package and district governments are also providing services (Indonesia), and where immunization services are almost completely provided for within the NHI benefits package and there is no other separate delivery system (Georgia).

Vaccine financing, procurement and distribution

As NHI is introduced and expanded, design decisions warrant careful consideration to ensure high immunization coverage, equity, quality and efficiency. Clarity on the respective roles of the MOH and NHI administrator in carrying out key functions of immunization, such as forecasting, budgeting, financing, procurement, and distribution of vaccines, is critical.

Like the consideration of how to finance immunization within the context of a country with NHI, vaccine financing, procurement, and distribution do not need to be an all-or-nothing decision when it comes to which entity is responsible. In some settings, the NHI administrator carries out these functions, in others, the MOH continues to conduct most functions, and still in others, countries use a mixed approach. To determine where the responsibility for these functions should reside, countries need to consider which entity has the specialized skills to execute these functions.

Regardless of which entity is responsible for vaccine financing and procurement, international experiences show that, in most cases, these functions should remain centralized at the national level. In low- and middle-income countries, vaccine procurement is already typically a national level function. It requires specialized knowledge to accurately forecast and budget procurement needs and to execute the tendering process, and these skills typically reside at the national level. In addition, national-level procurement enables countries to benefit from economies of scale and ensure adequate resources through pooling. In decentralized contexts, forecasting and procurement can still take place at the national level when subnational governments are financing their portion of vaccines, but subnational governments would still provide forecasting inputs to the national government.

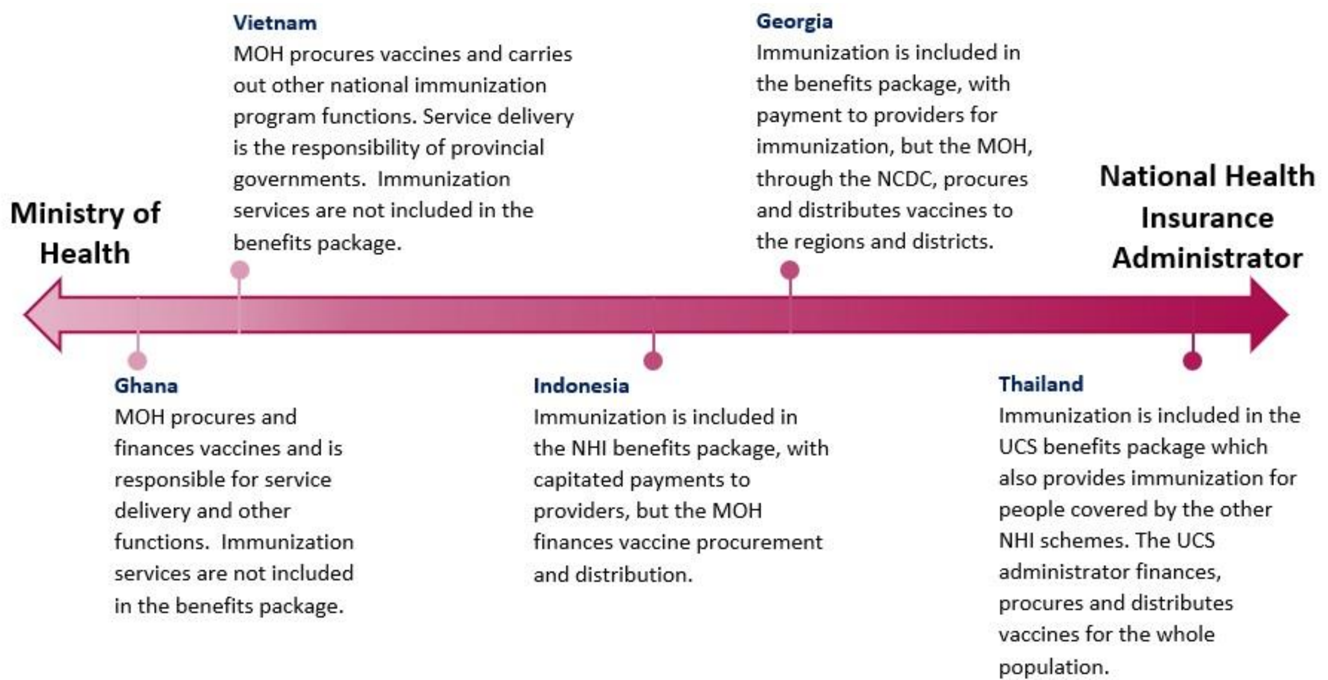
While there is no "perfect" model, the MOH must tailor policy decisions on NHI design that make sense for the immunization program. As the system evolves over time, learning is essential to clarify the roles and responsibilities of these entities. Communication with the public is equally as essential to ensure they understand where to receive services.

*In **Costa Rica**, vaccine financing and procurement responsibilities are shared by the NHI administrator, the Social Security Fund, and the MOH. The Social Security Fund finances a certain selection of vaccines, which make up approximately 70-85% of total costs, and the MOH finances the remaining vaccines on the schedule. Both agencies carry out their own procurement through the PAHO Revolving Fund. When an unexpected and urgent need to purchase influenza vaccines arose, the Social Security Fund had the flexibility and capacity to draw from its larger budget to finance this need.*

*In **Georgia**, vaccine financing and procurement is the responsibility of the National Center for Disease Control and Public Health (NCDC) within the MOH. The national immunization program is overseen by the NCDC which also procures and distributes vaccines to the regions and districts financed with government funds. The government's vaccine budget is administered by the NCDC.*

*In **Mexico**, six separate insurance administrators, the Social Security Institutions (SSIs), finance and procure vaccines separately. These SSIs provide differential access, coverage, and prices to a population segmented by their employment status. Five SSIs serve those with formal employment, and Seguro Popular is a public health insurance mechanism for the unemployed and the informal employment sector. Each of these insurance administrators finance, procure, and deliver vaccines separately. This fragmentation hinders the efficient financing and effective procurement and distribution of vaccines.*

*In **Thailand**, the National Health Security Office (NHSO) is responsible for the financing, procurement and distribution of vaccines. The NHSO, which administers the UCS scheme, is responsible for the financing, procurement and distribution of vaccines to all UCS health facilities. The provincial health offices are then responsible for implementing the immunization program.*



Policy setting

The introduction of a new vaccine, changes to vaccine presentation, the addition of a booster dose, multi-dose/open vial policy, changes vaccine delivery strategies, and the establishment or change to other immunization policies are important decisions that may have public health, financial, economic, and political considerations[1]. The scrutiny applied to many of these policy decisions may be higher as countries transition and are no longer receiving funding from Gavi or preferential prices (although many manufacturers have provided post transition price commitments for a period of years). Countries must establish a rigorous process to evaluate new or changes to existing immunization policies based on public health benefits and affordability.

*In **Thailand**, the decision to introduce a vaccine is made by the Ministry of Public Health (MOPH) while the NHI administrator (NHSO) decides whether to finance the new vaccine. The MOPH makes its policy decision following recommendations from the Advisory Committee on Immunization Practice (ACIP) which advises on vaccine introduction based on the technical aspects such as disease burden, public health impact, vaccine safety, and efficacy. The NHI institution, NHSO, makes its financing decision following recommendation from Health Intervention and Technology Assessment Program (HITAP) which advises on vaccine introduction based on cost effectiveness and budget impact. Any changes to the benefits package, including new medicines and vaccines, are reviewed annually and decisions are made with consideration of all proposed medicines within the total budget envelope.*

When immunization is included in the benefits package, it is critical for countries to consider the role of the NHI administrator in immunization policy setting. Outside of vaccines, the NHI administrator has the responsibility to decide whether a range of health interventions should be included in the benefits package. The NHI administrator will face budget pressures on many fronts from new technologies and pharmaceuticals, and many changes to immunization policy, particularly to introduce new vaccines, will have budget implications. Given their respective organizational mandates, the NHI administrator may consider financial impact and

[1] The Immunization Data Cost Catalogue is a source for global evidence of the cost of delivering vaccines.

affordability more heavily, while the MOH may prioritize public health interests. In practice, both financial and health interests must be balanced, requiring a collaborative process between the NHI administrator and the MOH. Here are some questions to consider:

- Does the NHI administrator have the technical expertise to set policy?
- Does the MOH have the mandate or greater commitment for public health?
- Is there a potential conflict of interest for the NHI administrator to advocate for both policies and budget allocation?

Of course, when immunization remains within the budget of the MOH, immunization policy decisions with budgetary impact may still be a challenge, depending on how the MOH budget is evolving over time and other commitments and priorities.

Provider supervision, quality assurance, and training

When immunization is included in the benefits package, much of the initial focus in determining the respective roles and responsibilities of the MOH and NHI administrator may be around issues such as the financing and procurement of vaccines and service delivery. However, there are other important functions to be considered, one of which is ensuring continued provider training on immunization, and this includes both the funding and capacity to provide training. Supervision of providers and quality assurance of the vaccine supply chain and the delivery of immunization services are also needed.

Provider trainings for new vaccines, changes to immunization policy, and refresher trainings typically remain the responsibility of the MOH, but the funding source for these trainings may be the MOH or the NHI administrator. Whether or not private immunization providers are included in these trainings is another programmatic issue to consider.

For many countries, across health services, supervision is not routinely done due to both limited funding and overstretched staff at all levels of the health system. For immunization, countries with an NHI system often continue to task the MOH and subnational health offices (PHO, DHO) with the supervision of public providers. Although the NHI administrator contracts providers, they seldom take on an active supervision role. Lastly, while the MOH are often mandated to supervise all health facilities, it is extremely rare that they would regularly supervise private providers, given the funding and staff limitations. Supervising private providers may be an increasingly important issue under NHI, as private providers may be contracted to provide services through public funds.

*In **Georgia**, the NHI administrator (NCDC) supervises and provides training for (mostly private) immunization providers. NCDC trains providers with the introduction of new vaccines and supervises the provision of both state-supplies and commercially obtained vaccines.*

*In **Indonesia**, while immunization services are part of the capitation payment from the NHI, the MOH provides quality control and training for providers. While provider training and supervision at the provincial level is funded and conducted by the MOH, it is the responsibility of provincial and district governments to further fund MOH training at levels below the provincial.*

Most NHI administrators have at least an implicit role in quality assurance, driven by the standards or criteria by which providers are registered or accredited to deliver services covered by the NHI system. Beyond accreditation or registration, countries also need to consider who is responsible for monitoring the quality of vaccine handling or the cold chain system and equipment.

*In **Thailand**, the MOPH is responsible for provider training and supervision. The national EPI conducts training to regional level and relies on subnational levels to cascade the training to lower levels. Private providers are usually not included in training for health workers. While the MOPH is responsible for training, the NHI administrator (NHSO) collaborates with the MOPH to improve cold chain management and vaccine handling, in order to ensure vaccine quality.*

When countries are deciding the programmatic and funding responsibilities of the MOH or NHI administrator relative to training, supervision, and quality assurance, here are some questions to consider:

- Would supervision and training be funded from national or sub-national budgets?
- Does the NHI administrator have the capacity to conduct training or supervision?
- How will private providers receive training, supervision, and quality assurance monitoring?
- Would reporting be linked with vaccine supply or provider payment?

Public health concerns: surveillance, outbreak response, and evaluation

Other important considerations when determining the roles and responsibilities of the MOH and NHI administrator when immunization is included in the benefits package are: surveillance of vaccine preventable diseases and adverse events following immunization (AEFI); outbreak response; data collection and monitoring; and program evaluation. While the MOH typically has the specialized expertise and is therefore better positioned to continue carrying out these functions, countries must ensure that the MOH has the adequate resources to do so, even if funding for the national immunization program moves to the NHI system. If the NHI administrator is responsible for vaccine procurement and the MOH is responsible for outbreak response, the MOH and NHI should coordinate to ensure the country maintains sufficient vaccine stock in the case of an outbreak or is prepared to rapidly procure the vaccines to respond to an outbreak.

If immunization is in the benefits package, the roles and responsibilities between the MOH and the NHI administrator related to the sharing of information must be clearly established. In Indonesia and Thailand, immunization providers continued to report through the systems in place before the implementation of the NHI system. While the NHI administrators in Indonesia and Thailand (BPJS and NHSO, respectively) do not play a large role in monitoring coverage, there is potential to use insurance

payment systems to incentivize providers in low coverage areas. The information system must be able to capture and feedback data from all providers to enable the MOH to effectively carry out its monitoring and surveillance duties in a timely manner. Information systems are also critical for monitoring the intended and unintended impacts of NHI implementation on the NIP to allow countries to adapt the NHI design as necessary.

Some additional questions to consider are:

- Would the NHI administrator follow-up on delayed reporting?
- Would the NHI administrator analyze data and be responsible for response?

*In **Mexico**, each of the six separate insurance institutions conducts its own monitoring with no mechanism to consolidate information and ensure timely response to issues that arise. An integrated system is needed to have complete, reliable and timely information for planning, M&E, and coordinating the system as a whole.*

*In **Thailand**, the MOPH is responsible for surveillance, but it is not overseen by the immunization program. The Bureau of Epidemiology within the Department of Disease Control maintains a separate reporting database for reportable diseases, many of which are vaccine-preventable diseases. A major challenge related to the accuracy of reporting is due to the use of an electronic system that private providers do not use.*

Summary

While there is no "perfect" model, countries must pay careful consideration to how public health programs, including immunization, are handled as NHI systems evolve. During a period of NHI introduction or transition, learning is essential to continue to clarify the roles and responsibilities of the MOH and NHI administrator as needed and to ensure that NHI does not bring unintended consequences for immunization services. Countries must ensure clear roles and responsibilities for financing and carrying out immunization functions, as well as establish effective processes for collaboration and information sharing. Similarly, countries must ensure clarity for the population on where they can get immunization services and what, if anything, they will be expected to pay to access immunization services. It is to be expected that temporary problems can arise during transition to new systems. Careful monitoring and evaluation should allow temporary problems to be distinguished from structural flaws in design. Finally, as an NHI system is implemented, it needs to be monitored and evaluated closely to identify unintended consequences and make policy adjustments as needed.