

RESOURCE GUIDE

Innovative Financing for Immunization

December 2018

BREAKING NEW GROUND

THINKWELL



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ACRONYMS

BCG	Bacille Calmette-Guerin
BHTF	Bhutan Health Trust Fund
CeNSIA	Centro Nacional para la Salud de la Infancia y Adolescencia (National Center for Infant and Adolescent Health)
CGS	credit guarantee scheme
DCA	Development Credit Authority
DIB	development impact bond
DTP3	diphtheria-tetanus-pertussis, 3 rd dose
HepB	hepatitis B
HPV	human papilloma virus
NCD	noncommunicable disease
NIP	national immunization program
OECD	Organization for Economic Co-operation and Development
PCV	pneumococcal conjugate vaccine
PBF	performance-based financing
SIB	social impact bond
SME	small- and medium-sized enterprise(s)
WHO	World Health Organization

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Innovative Financing for Immunization

INTRODUCTION

Health costs across programs and countries are increasing as demographics shift and new technology is developed. Health spending is projected to increase across the globe from US\$7.82 trillion dollars in 2013 to US\$18.28 trillion by 2040.¹ Much of this increase can be attributed to changes in the global population, which continues to expand. The World Health Organization (WHO) projects that the global population will reach 9.8 billion people by 2015, compared to today's 7.6 billion.² In addition to this growth, the population is aging, with virtually all countries experiencing a rise in the proportion of their older populations.³ Older populations generally require more chronic care and increasing public health care investments. New technologies are also contributing to rising health costs. All of this puts pressure on country governments to expand fiscal space to meet the health priorities of their populations.

With the rising burden of noncommunicable diseases (NCDs), national immunization programs face challenges in prioritizing sustained growth. National immunization programs have made tremendous strides since expanded programs for immunization were implemented in the 1970s. Smallpox was eradicated. In some regions, diseases such as polio were also eliminated. However, despite treatment successes for diseases for which vaccines could be developed, other diseases have taken their place as major burdens on country health. NCDs have continued to increase in their proportion of the global burden of disease. In 2016, 71% of global deaths were attributed to NCDs,⁴ up from 63% in 2008.⁵ With this shift, governments have needed to prioritize funding for NCD programs. Obesity and its associated chronic conditions have come into focus. Cancer treatment and care have been prioritized because of the major financial burden on individuals and the pressure on governments to help the affected populations. Although immunization programs are still a proven and cost-effective investment for public health programming, other health issues such as NCDs often overshadow the priority to expand to other health areas and interventions.

National immunization programs across countries face financing challenges to expand schedules and improve program performance. New vaccines are being manufactured, and drugs are becoming more effective and efficient. These improvements will save many lives but come with financing challenges for countries. Governments need to continue to invest in immunization programs as new technologies are developed, and strong outcomes require consistent and ongoing investments. The Philippines has had great success in expanding its national immunization program (NIP) schedule, adding a number of new vaccines over the years. However, the financing required to deliver those vaccines has not been reliable. Additionally, use of available financing resources has not been efficient. Improved use of available funds is needed to raise coverage rates that dropped as low as 60% for the third dose of the diphtheria-tetanus-pertussis (DTP3) vaccine in 2015.⁶ For other countries with recurring high rates of vaccine coverage, ensuring efficient

¹ Dieleman et. al (April 13, 2016).

² UN Department of Economic and Social Affairs (June 21, 2017).

³ United Nations (2017).

⁴ World Health Organization (2018c).

⁵ Alwan, Ala (2011).

⁶ World Health Organization and UNICEF (2018).

use of existing resources as well as finding the financing for new technologies is often a challenge. Colombia has been unable to add the meningococcal vaccine to its national schedule despite requests from the national immunization program's office.⁷ Only 77% of countries tracked by the WHO have added PCV to their national schedules. This drops to 56% for HPV programs, the vast majority of which target only females. The number is even lower for rotavirus vaccines, which are only delivered by 52% of national immunization programs.⁸

OBJECTIVE

Traditional financing mechanisms are not always enough to fund the immunization program that countries need, or to provide the accountability mechanisms that poor-performing programs require.

Indonesia conducted a comprehensive multi-year plan for its immunization program in 2014 and identified a 17% budget deficit in the national immunization program budget that included two new vaccine adoptions and four demonstration pilots.⁹ When Colombia went through an economic downturn in 2014, the Colombian NIP budget, which relies on Ministry of Finance allocations, fell by over 50% between 2013 and 2016.¹⁰ Beyond these quantifiable challenges faced by immunization programs, traditional financing mechanisms also have limited ability to hold programs accountable for how that money is allocated and spent. In Mexico, the central government transfers immunization program delivery funds to the states. However, the states have poor tracking systems for these resources and limited accountability for reporting how resources are used. This also limits an overall understanding of Mexico's national and sub-national immunization budget and expenditure. It is impossible at this point to know what is spent on the immunization program or what coverage rates are, though it is acknowledged that coverage varies widely between states.¹¹

Innovative financing should be further explored as a solution to expand fiscal space by addressing affordability and accountability challenges in immunization programming.

Countries that do not make necessary immunization program updates – whether because of infrastructure, resource investment, or additions to the schedule – generally attribute these decisions to affordability limitations. This either signifies that they do not have the ability to pay to expand – that is, they simply do not have the funds – or are unwilling to pay for the upgrades, or do not want to re-prioritize funds from other investments. Countries may also limit program investment because of poor performance and an inability to incorporate a system of incentives or accountability to improve performance and a more efficient use of existing resources. Innovative financing tools exist to tackle all of these challenges.

To achieve the end goal of secured and growing immunization budgets as well as the better use of those budgets, greater understanding of innovative financing and available mechanisms is a first step. For sustainable immunization programs, a country needs a secured budget, the flexibility to ensure budget growth in line with health needs, and ways to ensure that the available funds are used efficiently and effectively for maximized outcomes. Though government allocations are likely to remain the principal funding source for NIPs, innovative mechanisms can provide additional opportunities on all these

⁷ Coe and Madan (July, 2018).

⁸ World Health Organization (2018b).

⁹ Directorate General for Disease Control and Environmental Health, Ministry of Health, Republic of Indonesia (2014).

¹⁰ World Health Organization (2018a).

¹¹ Wilkason et. al (October, 2018).; Secretaria de Salud de Mexico (2014).

fronts. Still, there is limited knowledge of the different innovative financing mechanisms, and limited understanding of how the mechanisms can be designed for additionality and efficiency gains. For instance, as identified in the [country landscaping analysis](#), Colombia's immunization program has challenges on all sustainable financing fronts.¹² The national immunization program's office cannot secure additional resources to add new vaccines. As program-implementing bodies, the municipalities and public insurers are unable to secure the required funds for programming support to improve performance, and there are inadequate accountability mechanisms to ensure program performance at the sub-national level. For the municipalities, this is the result of a limited performance-based financing program that does not function as a strong incentive for performance for the local managers. For the public insurers, there is no system in place to incentivize their proactive engagement with the program. Actors within the system are intrigued by the idea of a new financial mechanism that could support the program, and are interested in learning more about how this can be achieved or where to start.¹³

The objective of this resource guide is to (1) promote greater awareness of innovative financing mechanisms and ways those mechanisms have been used, (2) increase understanding of the contexts within which the tools work, and (3) draw on currently implemented models for lessons to apply to future use. The guide is informed by a desk review of global experiences and landscaping in nine countries, done as part of the Merck-funded Sustainable Immunization Financing Project. This guide is intended to help interested stakeholders analyze innovative financing options, based on in-country understanding of financing and program challenges that governments face in implementing immunization programs. It will function as a resource to build strategies that improve country-level sustainable immunization financing.

INNOVATIVE FINANCING: WHAT DO WE MEAN?

Innovative financing is a relative term that generally refers to mechanisms with the potential to supplement existing funding channels by tapping into new sources and/or expand the impact of current financing structures.¹⁴ Mechanisms that were once new and innovative have now merged into the health financing landscape. The mechanisms that can be considered "innovative" thus change over time. For the purpose of this paper, "innovative" will refer to (1) mechanisms that source funds from outside of the traditional means of general taxation and donor assistance, and/or (2) mechanisms that create systems, or incentives, that improve program performance. These two kinds of mechanisms are essentially ways to find new money or make existing money work harder. Most innovative financing tools imply collaboration between multiple stakeholders. Thus, most models can be designed to be a public-private partnership.

Innovative financing mechanisms can be categorized as (1) novel funding mechanisms that source new program funds, or (2) performance improvement mechanisms that make existing funds go further. Novel funding mechanisms have the potential to bring in more money and combat affordability challenges. These mechanisms are those that tap into or free up new funds outside of existing traditional channels.¹⁵ They may also be

¹² Coe and Madan (July, 2018).

¹³ Ibid.

¹⁴ Michaud and Kates (October, 2011).

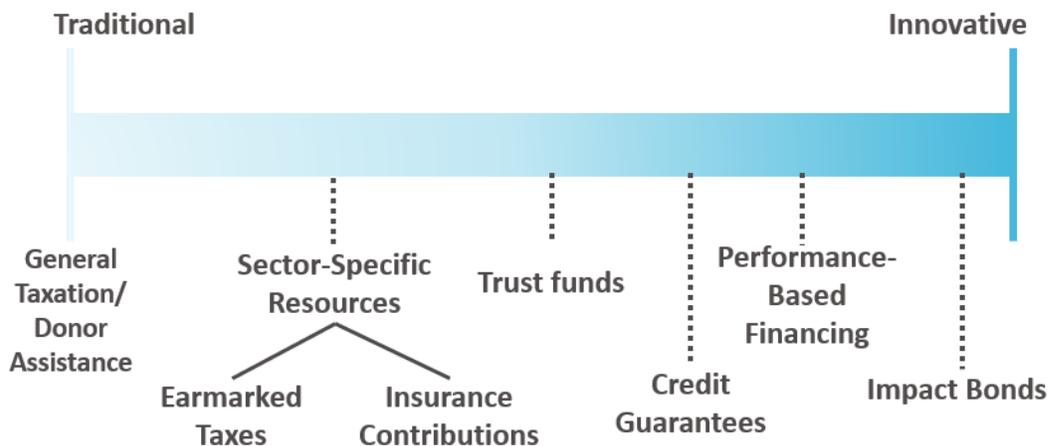
¹⁵ Michaud and Kates (October, 2011).

successful at making funds more rapidly available. Examples of novel funding mechanisms may include insurance contributions, earmarked taxes, or trust funds. Furthermore, performance improvement mechanisms allow better use of existing funds. They can stimulate action to achieve an objective or improve accountability structures by inserting incentives into the health system. Performance improvement mechanisms tend to provide output-based financing in contrast to traditional input financing in order to develop the accountability structures needed to improve performance and achieve results. Examples include performance-based or results-based financing mechanisms, and impact bonds.

This guide will not provide an exhaustive list of all innovative financing mechanisms, but instead will profile a set of mechanisms that are relevant for tackling immunization financing challenges at the country level. The mechanisms included in this guide will cover both novel and performance improvement models that can be tailored by countries to address immunization financing challenges. Much of the international discourse around innovative financing focuses on global mechanisms, such as the International Finance Facility for Immunization, the airline tax, or advanced market commitments. These are amazing tools that have enacted real change within the health financing environment. However, since this guide is meant to identify opportunities for public programs at the country level, it will focus on those mechanisms that can be applied locally. The mechanisms profiled include:

1. Insurance Contributions
2. Earmarked Taxes
3. Trust Funds
4. Credit Guarantees
5. Performance-Based Financing
6. Impact Bonds

Figure 1. Mechanisms Along the Innovative Spectrum



MECHANISM PROFILES

1. EARMARKED TAXES

What It Is

Earmarking taxes involves separating revenue from a tax or group of taxes to set aside for a specific purpose. This form of domestic resource mobilization is increasingly used to expand fiscal space and relieve budget constraints as countries transition off donor financial support.¹⁶ “Hard” earmarking indicates that the revenue must be allocated to a certain program, backed by legislation. “Soft” earmarking indicates that revenue is designated for a specific area, but the amount is not consistent and can be allocated according to current need or priority.¹⁷ Soft earmarks are typically designated through a government commitment without formal legislation.

Earmarked taxes most often take the form of excise taxes, or taxes imposed to raise revenue, but can occasionally be in the form of value-added taxes, import taxes, payroll taxes, or other forms of revenue transfers.

Objectives of the Mechanism

1. Earmarked taxes mobilize resources for public programs and increase fiscal space by providing a new or protected revenue source for prioritized programs.
2. Earmarking is also used as a policy instrument to decrease unhealthy behaviors or the use of unhealthy products. Taxes on goods that affect health, known as sin taxes, are widely applied to tobacco and alcohol, and are more recently being applied to sugar-sweetened beverages and other products. Earmarking of sin taxes has been used to advance national health priorities, as in Ghana, Estonia, and the Philippines, where earmarking made it possible to launch or expand national health insurance programs.¹⁸

Enabling Factors¹⁹

Objective: Establish a Sin Tax

Political will and public support: Political will is essential to overcome strong industry opposition, especially common with sin taxes on tobacco or sugar-sweetened beverages. Though governments may regard earmarking negatively as a way of “locking up” funds, sin taxes are more likely to be approved if revenue is earmarked to health programs, and are more viable when allocated toward a popular health priority, such as national health insurance. However, the results of earmarked tax implementation are highly context-specific and depend on a country’s political priorities and budget process.

Epidemiological and fiscal evidence: Earmarked taxes have increased political and public support and are easier to introduce when fiscal and health benefits overlap. This creates synergies between finance and health ministries and increases incentives for collaboration. Strong evidence is also a powerful and often necessary tool to counter opposition.

¹⁶ van Walbeek and Filby (June, 2018). ; PWC and the Eurasia Group (July, 2014).

¹⁷ World Bank Group (2018).

¹⁸ Cashin et. al (2017).

¹⁹ Cashin et. al (2017).; World Health Organization (2016).

Stakeholder collaboration: Successful implementation of earmarked taxes can be enabled through cooperation or partnerships between civil society, policymakers, advocates, researchers, the media, and the wider health community.

An engaged middle class: The existence of a large and engaged middle class also increases the likelihood that sin taxes will be implemented. Countries with larger middle classes are more likely to have their governments held accountable by the people for earmarking taxes for public health and other public improvements.

Objective: Implement a Sin Tax

Regularly updated: Earmarked taxes need to be periodically updated to account for inflation and population trends. Without these updates, the resulting budget allocations become inefficient over time. Some countries build systems for annual updates within their tax policies or legislation.

Strong tax administration system: Effective tax administration is critical for the efficient use of earmarked taxes. Tax administrators must analyze tax trends to evaluate their effect on revenue, pricing, and production levels. Transparent and simple tax collection policies reduce tax avoidance and enhance revenues. Simple tax collection and transfer mechanisms also reduce the likelihood of political interference, especially if the transfer avoids routing tax revenue through the national budget.

Accountability mechanisms: Earmarked revenue transfers are more likely to be made on time, and in full, to the correct agencies when there are accountability and oversight mechanisms in place.

Example Model

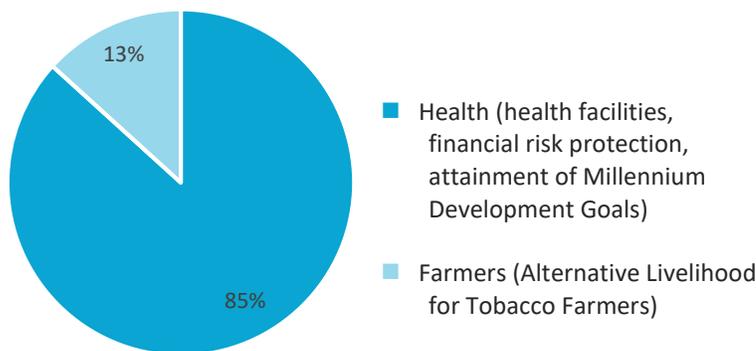
The Philippines provides a prime example of sin tax earmarking success, with tobacco and alcohol taxes greatly benefiting the health sector budget. Between 2010 and 2012, the Aquino administration worked to reform the tobacco and alcohol tax laws to close loopholes and earmark increased funds for the long-promised expansion of coverage under the universal health coverage scheme, PhilHealth.²⁰ Years of effort to reform these taxes had failed due to strong resistance from the tobacco industry and the tobacco-growing regions within the country. At the suggestion of several organizations, including the World Bank and local civil society organizations, President Aquino tailored his messaging to focus on the reform as a health measure and on the changes to the tax code as efforts to correct fundamental problems in the existing law. The message was that sin taxes were a win for the poor, a win for the youth, a win for health, a win for the economy, and a win for the future. The law was put into place in December 2012.



²⁰ Santa Ana III, Filomeno (September, 2017).

Under the law, a portion of the incremental tax revenues is earmarked for the local tobacco farmers affected by the tax.²¹ The remaining incremental revenues, equivalent to about 85% of the 2016 total, are earmarked for health expenditures (Figure 2).²² Based on political and district subdivisions, 20% is allocated nationwide for medical assistance and health facility enhancement programs, for which the annual requirements are determined by the Department of Health. Of the revenue earmarked for health, 80% is allocated for the National Health Insurance Program, the attainment of the Millennium Development Goals, and health awareness programs. These are soft earmarks, and the portions are decided annually by the Department of Health.

Figure 2. Distribution of the Incremental Revenues from the Philippines Sin Tax (2016)



Source: Department of Health (2016).

According to the Department of Health, PhilHealth experienced a budget increase from US\$740 million in 2015 (66% from the sin tax incremental revenue) to US\$880 million in 2016 (71% from the sin tax incremental revenue).²³ From US\$800 million in 2012, the Department of Health (DoH) budget in the Philippines more than tripled by 2017, due to earmarking for health.²⁴ According to the DoH, the incremental revenue from the sin tax accounted for 57%, or US\$1.3 billion, of its total budget in 2016.²⁵ The NIP has greatly benefited from these funds. In 2015, the NIP was allocated US\$63.3 million, of which 42% was funded from the sin tax incremental revenue for health.²⁶ The sin tax revenues, an addition to the annually allocated national budget, have been leveraged for new vaccine adoptions.

Equally compelling to the revenue generation is the success of the tax in lowering the prevalence of smoking within the Philippines. Between 2009 to 2015, prevalence of smoking dropped from 29.7% to 23.8%, threatening the sustainability of the sin tax as a revenue generation mechanism over time.²⁷ In 2018, discussions about increasing the tax rate on tobacco and alcohol continue. For alcohol, the tax rates passed in 2012 were moderate compared to global rates.²⁸ For tobacco, despite the steep tax rate increase in 2013, the price of cigarettes in the Philippines, relative to other countries in the WHO

²¹ Sin Tax Reform Law: Republic Act 10351.

²² Department of Health (2016).

²³ Santa Ana III, Filomeno (September, 2017).

²⁴ Department of Health (2016).

²⁵ Ibid.

²⁶ Department of Health (2015).

²⁷ GATS (2017).

²⁸ Santa Ana III, Filomeno (September, 2017).

region, was the lowest as of 2014.²⁹ In the meantime, congress passed the TRAIN Act in December of 2017, adding a sugar-sweetened beverage tax with earmarks for health programs fighting diabetes and obesity.³⁰

2. INSURANCE CONTRIBUTIONS

Insurance contributions are a form of sector-specific resources that can be leveraged for immunization financing, though they are often perceived as a less innovative mechanism. Many countries collect insurance contributions through premium payments and use them to finance their public health systems in part. However, these funds, and the way in which an insurance purchaser can leverage them, are often not used to their full extent for immunization programs.

What It Is

Social health insurance mechanisms generate resources through individual contributions. These are often collected through a salary tax imposed upon employees and their employers. These resources may also include voluntary contributions from those working outside of the easily taxed formal sector. These contributions are usually pooled with government subsidies under an insurance purchaser.³¹ The insurer can then decide which services to provide, which providers will be contracted to provide those services, and how the delivery of those services will be paid for.³²

Objectives of the Mechanism

Insurance contributions provide an additional funding stream to traditional government, or sometimes donor, funding for public health. They thus hold potential for increasing budget headroom for health, if the existing budget lines remain stable under other funders within the health system. In addition to making new funds available, insurance contributions can be leveraged by the purchasing agency in strategic ways. For instance, incentivizing provider behavior to perform prioritized actions can lead to improved program performance. Based on our global review of purchasers and immunization programs, there is currently limited use of strategic purchasing through insurance mechanisms for different aspects of immunization programming. It may be preferable to keep delivery of vaccinations vertically funded and managed by ministries of health or there may be limited reimbursement to providers for the delivery of vaccines. As seen in countries that have strategically leveraged insurance mechanisms, the potential exists to grow immunization programs and improve their performance, depending on the country context. For many countries, engaging purchasers to increase sustainable financing for immunization is not a question of where to begin, but rather how to expand engagement by looking at what additional program costs could be covered or how to expand access, improve quality, and increase coverage.³³

Figure 3. Potential Immunization Program Costs that a Purchaser Could Cover

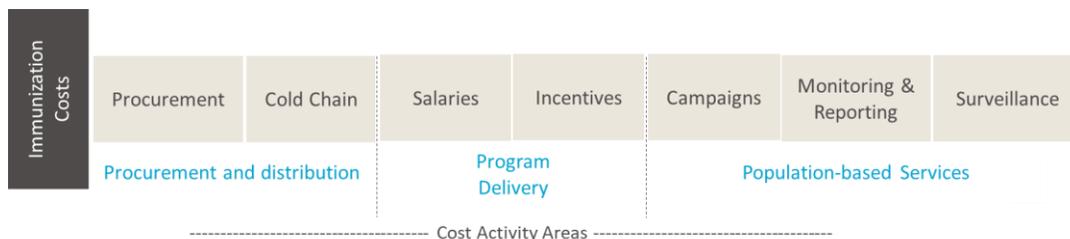
²⁹ WHO (2015).

³⁰ Department of Finance, Philippines (2018).

³¹ Note: A public system may have multiple purchasers

³² Mazzilli et. al (September, 2016).

³³ For more information on how to leverage a strategic insurance purchaser for immunization program improvements, refer to: Coe, Martha and Yasmin Madan. (2018). *Strategic Purchasers and Immunization: How to Leverage these Major Players for Program Improvements*. ThinkWell: Washington, DC.



Enabling Factors

Objective: Increase Budget Headroom

The insurer covers immunization: To leverage insurance contributions for immunization, the insurance mechanism must include some aspects of the immunization program. As seen in the spectrum in Figure 3, this could range from procurement and distribution costs to program delivery to population-based services. One or more NIP or non-NIP vaccines should be included in the benefits package to leverage this mechanism.

No trade-off with government funding: Using insurance contributions does not, in itself, guarantee additional funding for the immunization program. It is likely that program expenses for immunization that are covered by the insurer may be seen as a shift in responsibility by the government and hence lead to decreased government funding for that program. To receive the benefit of additionality to the immunization budget, public funding for the program cannot decline as additional resources are mobilized through insurance contributions.

A strong formal economy: Public health insurance mechanisms that draw on individual (employer and employee) contributions are usually implemented as a salary tax to facilitate ease of calculation and collection. This provides an efficient way to collect funds from the formal sector but requires different mechanisms in place for the informal sector, which can sometimes be a large portion of the overall economy. For members of the informal sector who can afford premium payments, the mechanisms are usually voluntary contributions, which can be difficult to calculate and collect. For a country to fully benefit from insurance contributions as a source of funding, a strong and large formal sector that can provide the fund base will enable mobilization.

Objective: Improving Program Performance

Purchaser/provider split: This term refers to the existence of two separate and independent actors performing two discrete actions: the purchasing of health services and the provision of those services.³⁴ This allows for the purchaser to operate more strategically by diminishing or erasing the conflict of interest that exists when the provider purchases services from itself. This is typically seen in the public system when the Ministry of Health is both the purchaser and the provider of services through the public network that it oversees. A purchaser/provider split can also increase access to services by creating more opportunities through pooled public resources for the inclusion of and payment to private facilities for providing immunization services. Having this split is essential to allow an insurance purchaser the autonomy necessary to leverage its funds for program improvements.

³⁴ World Health Organization (2000).

Output-based provider payments: One major action that insurers can take to leverage contributions for program improvements is through provider payment mechanisms. Purchasers can pay providers through a variety of mechanisms, including block transfers, fee-for-service, or capitation payment. Of these mechanisms, only fee-for-service is an output-based payment since the payment to facilities or providers is made based on service delivery outputs. For every child who is vaccinated, for example, a service reimbursement is made.³⁵ The other payment forms are seen as input-financing since they are made prior to service delivery and are not adjusted for program outputs or outcomes. If an insurance purchaser uses output-based payments, there is more scope to incentivize providers to increase their outputs.

A cohesive system: To leverage insurance contributions effectively, it is best for a country to have a cohesive financing system to implement the immunization program. Across countries, multiple actors are involved in the management and delivery of immunization programs. As identified through the landscaping work done across the Asia-Pacific and Latin America regions, these actors include ministries of health, insurance purchasers, and sub-national governments, and often operate at multiple levels. If there is limited coordination between leveraging insurance contributions for immunization and the rest of the national and sub-national system, then the impact of this financing mechanism is likely to be limited.

Example Models

1. The Czech Republic transferred the entire NIP to its strategic insurance purchasers.³⁶ A procurement agency is now contracted to procure all vaccines in the national program. Though the Ministry of Health remains the steward of the program and determines the national immunization schedule, the purchasers differentiate between vaccines and have the flexibility to add additional vaccines for their beneficiaries. This shift has opened up increased resources for immunization in the country by pooling government allocations with insurance contributions. Since the transfer of procurement to the insurers, the national immunization schedule has expanded as multiple new vaccines have been added.



³⁵ Performance-based financing is another form of output-based payment that calculates quantity and quality factors to measure performance. More on performance-based financing can be read under the corresponding section of this paper.

³⁶ Alexa et. al (2015).

2. In Colombia, planning and management of the immunization program are managed primarily by the NIP office and through local governments. In addition, multiple public insurance mechanisms handle the service delivery of the immunization program when they purchase vaccination services from their network of providers. The multiple public insurers use a mixture of capitation and fee-for-service mechanisms for the provider payments.³⁷ This allows for individual contributions or other lines of funding from the government to be tapped for immunization financing and releases the government from purchasing the service delivery costs for the immunization program. Colombia's insurance purchasers can also use their own funds to offer additional non-NIP vaccines as preventive services to target populations undergoing specific high-cost treatment regimens..



3. TRUST FUNDS

What It Is

A trust fund is an innovative financing mechanism that pools funds for a particular purpose. A trust fund differs from a normal fund in how its oversight mechanisms work, how revenues are sourced, and how funds are managed.³⁸ Public trust funds are established by law and are managed by a governing body, with policies and tax regulations. The governing body generally oversees the investment strategy, fund management, and operations. A trust fund requires initial seed capitalization that can be increased over time by pooling diverse resources from multiple sources. These sources can include allocation of a portion of domestic taxes, external resources such as donor funds, or cash or in-kind contributions from the private sector. The funds maintained in the trust fund can be passive or working. Passive funds are resources that are deposited and spent at approximately the same rate, while working funds are invested and only the interest, or a portion of it, is spent. Trust fund resources can be used for a mix of health programs, such as the preventive health care trust fund in Jamaica, or for a dedicated program, such as Bhutan's immunization trust fund.

Objective of the Mechanism

A number of countries, from the United States to Nepal, use trust funds to mobilize and sustain funding for dedicated programs.³⁹ Trust funds are a great opportunity to achieve a variety of objectives.

1. **Protect funding for a specific program:** A trust fund can provide security by ring-fencing public funds for a specific program. The legal structures required to establish a trust fund, and the visibility it offers to a program or service, help to maintain dedicated revenue for that program or service. Trust funds also allow for funds to be held for a period of time should a program need to develop absorptive capacity before

³⁷ Coe and Madan (July, 2018).

³⁸ Results for Development (2017).

³⁹ Social Security's Old-Age and Survivors Insurance and Disability Insurance resources are held within trust funds. (www.ssa.gov/news/press/factsheets/WhatAreTheTrust.htm).

an influx of funds is disbursed for implementation. Unlike annual government allocations that must be spent within the year, a trust fund can hold onto additional revenue for future use or for investment purposes and thus provides more flexibility in terms of raising capitalization for the fund and spending the resources in the fund.

2. **Mobilize new resources:** Another reason to use a trust fund is to allow the dedicated program funds to work harder. Because the resources in a trust fund can be from diverse sources and can be invested in the market to grow and accumulate interest, trust funds can be more sustainable over a longer time period. By limiting spending to a portion of the capitalization or returns generated by the trust fund, a trust fund continues to grow over time and generates new resources. Trust funds are also a public resource that can be designed to allow for greater access to private resources through donations or direct investment. As countries transition off external resources such as donor funding, or explore avenues to grow funding for the expansion of prioritized programs such as immunization, they may find the creation and management of a trust fund to be appealing.
3. **Pool and control resources from multiple sources:** The trust fund mechanism allows for diverse sources of capitalization from public, private, and individual contributions. Trust funds are designed to gather funds from a variety of sources for a common goal. They provide a mechanism that can crowd-in private capital and/or individual contributions for public programming and harmonize multiple revenue sources. As resources in a trust fund can be dedicated for prioritized programs, trust funds provide a platform to advocate for and coordinate funding across multiple sources.⁴⁰
4. **Financial sustainability over time:** By simultaneously ring-fencing program resources and generating income additional to government allocation, trust funds aim to increase financial sustainability. With the right capital base and investment strategy, a trust fund can provide a reliable income stream for its dedicated program and create opportunities for countries to become self-reliant in their program financing and improve the sustainability of that financing. For donor-dependent countries, a trust fund can be an efficient way to administer funds from multiple sources, reducing the rules and procedures required by different donors for fund expenditure. For countries that are not donor-reliant but still encounter challenges with transparency and resource tracking for program expenditures, a trust fund can provide the controlled space that improves reporting and tracking by harmonizing resources under one fund.
5. **Flexibility:** For countries where public programs receive line-item budgets from the central government and have limited flexibility in how disbursed finances are spent once the budget is finalized, a trust fund can increase flexibility. For health programming, a trust fund can provide the flexibility to respond to urgent resource requirements by using funds as needed, not as dictated by a central government office. Trust funds thus also offer opportunities to cover shortfalls and can even be leveraged to provide guarantees against loans.

Enabling Factors⁴¹

Political will: Trust funds are complex and can be difficult to set up. Strong political will is required to establish a trust fund and ensure its ongoing success.

⁴⁰ McQuestions et. al (2011).

⁴¹ The World Bank and GAVI Alliance (December, 2010). ; Results for Development (2017).

Time and capital: To have the resources within trust funds work, countries and the programs to which the trust fund is dedicated must have the financial stability to avoid spending the trust fund's resources prematurely, which would prohibit growth of the resources in the fund. There must be time allowed for capitalization in order to build up reserves in the fund. Capital is necessary to build the base required to subsist on investment returns and interest. Capital is also required to cover the administrative needs of the trust fund. Though a trust fund may be an administrative efficiency for countries that are consolidating multiple lines of donor funding into the trust fund, for countries that rely on domestic financing and have not previously used such a complex mechanism, a trust fund can signify an increase in administrative needs.

Diversified funding sources: A trust fund works best if it draws from multiple sources of funding. This will build capital reserves faster and allow for increased stability in times of macroeconomic downturn. Tapping into private and individual resources can add an additional stream of funding from the traditional lines of government allocation or donor funding. Policies that offer tax relief for those who contribute, or recognition for private sector funding, can help to mobilize this stream of funds.

Robust articles of constitution: The articles of constitution will be the backbone of the trust fund and lay the foundation for its operation. This document should include the purpose, beneficiaries, governance structure, operations, procedures, planning for outside supervision, responsibilities, and reporting requirements.

Competence in management: The governing body of the trust must have a range of technical expertise. Members should hold competencies in technical operations, policy and financial management, and asset management to ensure that the trust fund is reliable and successful.

Resource requirements can be estimated over the medium term: Knowing which resources the trust fund's dedicated program will need can help to make capitalization needs more predictable. A program such as immunization allows for generally predictable costs. There are procurement, program delivery, and population-based services that need to be covered (though not all of these costs may be funded by the trust fund). The relatively predictable needs of an immunization program make it a great candidate for a trust fund, which could protect it from any shocks that would deplete funds.

Needed revenue can be achieved through investment of capital within an acceptable range of risk: For a trust fund to be sustainable, it is desirable to rely simply on the investment returns and/or interest of the resources. If the needed revenue to cover the stated costs can be achieved by investing at the rate of desired risk, the investment will enable greater sustainability in the fund.

Example Models

Though trust funds are a promising financing mechanism and have been proposed in countries across the globe, as yet few countries have pursued implementation, particularly for immunization programs.

The best-known example of a trust fund for immunization is in Bhutan.⁴² In response to the country's Gavi graduation, Bhutan established the Bhutan Health Trust Fund (BHTF). In 2000, the King of Bhutan established the BHTF with a royal



⁴² Results for Development (2017).

charter, followed by an energetic publicity tour by the prime minister to encourage public donations that the government would match, alongside its annual allocations to the BHTF. The prime minister joined the first Move for Health Walk to publicize the BHTF, walking from Bhutan's eastern border to the capital city. It took the BHTF 10 more years to reach its target capitalization of US\$24 million. This target has since been raised by the governing board because health expenses to be covered by the BHTF have increased over time. The fund's administering board includes representatives from the ministries of health and finance, the Gross National Happiness Commission, and the private sector. Though the BHTF was initially founded to cover Bhutan's Gavi co-financing requirement for the pentavalent vaccine, it now covers the full cost of this vaccine due to its success in pooling funds from multiple sources and making the resources in the fund work. The government hopes that the BHTF will one day fully finance all vaccines in the national schedule with associated supplies and distribution requirements, adding increased sustainability to the financing of the national immunization program.

Trust funds can also be implemented at a global level, though these funds tend to have different objectives. Global trust funds are a mechanism used by donors to pool funds toward a common purpose and to instill some level of control over the utilization of those funds at the country level. The Health Results Innovation Trust Fund was established in 2007 by the World Bank, with funding from Norway and the United Kingdom. This trust fund focuses on maternal and child health programming with an emphasis on results-based financing. In total, the trust fund currently supports 35 results-based financing programs and 33 impact evaluations across the globe.⁴³ These donor trust funds tend to function very differently as a financial instrument compared to the public trust fund description and examples presented.

4. CREDIT GUARANTEE SCHEME

What It Is

A Credit Guarantee Scheme (CGS) is a financial tool used to reduce the risk of lending to borrowers that may not qualify for traditional loans from financial institutions. Under a CGS, a third party absorbs partial or full losses on any loans made to the borrower, thereby reducing the risk to the lender should the borrower default. In immunization financing, CGSs are used by revolving funds to ensure that countries have the resources available to secure uninterrupted access to needed vaccines, even if domestic funds are not in place at the time of need. In this way, CGSs are often used to maintain immunization program funding rather than to generate new funding.

Outside of immunization funding, CGSs are often targeted to small- and medium-sized enterprises (SMEs), which are often perceived to be less creditworthy and have less access to collateral, which precludes them from obtaining a traditional bank loan. There are three parties in a CGS: a borrower who does not qualify for a traditional loan, a lender who provides the loan, and a guaranteeing agency that will reimburse the lender some amount of the loan should the borrower default.⁴⁴ A number of countries, from Argentina to

⁴³ Bauhoff and Glassman (January 30, 2017).

⁴⁴ Samujh et. al (2012).

Zimbabwe, have implemented some form of a CGS in both the development and commercial sectors.⁴⁵

Objective of the Mechanism

1. CGSs are a way to encourage lending to businesses that are underserved by traditional lending mechanisms. Recognizing the large role of SMEs in both OECD and developing economies, ministries of finance, development agencies, and banks have used CGSs to help achieve macroeconomic goals, particularly for areas of political interest. By designing CGS programs for specific sectors, governments can signal that these economic areas are priorities.
2. CGSs can help overcome lender reluctance, as lenders are typically hesitant to lend to borrowers that are less known to them. This could be because of unfamiliarity with the sector, a new and previously untested initiative, or simply the small scale of their operations. The administrative costs to determine creditworthiness and originate the credit compared to the size of the loan often deter lenders from working with SMEs. By introducing a third party to guarantee some portion of the load should the borrower default, lenders can remove much of the uncertainty about lending to SMEs.

Enabling Factors

Sufficient capital to start and maintain the CGS program: Adequate funding is needed to start and maintain a CGS. Sources of initial funding have often been donors, foundations, or governments, yet regardless of the source, the CGS should make the funding sources transparent.

A clear mandate for the CGS and eligibility criteria for potential borrowers: The aim of a CGS should not be to maximize profits for the participating parties, but instead focus on what the program is trying to achieve. To that end, a CGS should have a mandate that identifies the target sector of the program as well as clear and transparent eligibility criteria for potential borrowers.

Appropriate risk management tools: By definition, a CGS is meant to serve borrowers whom conventional lenders consider to be risky. Therefore, any CGS must have strong risk management tools in place to mitigate potential moral hazards. If the guarantor takes on too much risk, the lender may not be incentivized to perform proper risk screening and may take on high-risk borrowers. Conversely, if the guarantor does not take on enough of the risk, lenders may be reticent to change their behavior and the CGS may fail.

Example Models

The Development Credit Authority (DCA) is a mechanism by which USAID (or other development organizations working with USAID) partners with local financial institutions to provide loans targeting underserved markets. USAID guarantees up to 50% of a loan issued by a financial institution if the borrower defaults on payments. Targeted borrowers are typically SMEs, women-owned businesses, and rural businesses. The immediate objective of DCA programs is to change lending behavior among financial institutions to



⁴⁵ Ibid.

increase lending to traditionally underserved and new clients, who may otherwise face obstacles in obtaining loans. Longer-term objectives are to (1) support the deepening of the financial sector so that financial institutions will continue to lend to underserved clients after support from donors ends, and (2) to change broader attitudes about SMEs. DCA programs are also intended to foster competition between financial institutions in order to increase the availability of lenders willing to engage with clients considered higher risk.

A DCA is used in Senegal to stimulate the private sector market for health services. The smaller private health providers in Senegal, including a growing number of private clinics, private hospitals, diagnostic laboratories, and medical training service providers, experience financing constraints. These small firms lack the operating history or collateral required to secure a bank loan and commercial banks lack the skills and risk-appetite required to serve the new small- and medium-health enterprises. Without access to capital, these private clinics are unable to hire additional staff or upgrade their facilities. This results in a limited number of patients served and a limited range in the quality of services provided. To meet the financial need, USAID developed a DCA partial-credit guarantee portfolio with a local commercial bank that allows USAID to share some of the risk of lending to SMEs in the health sector. Together, USAID and the local partner have unlocked up to US\$6.9 million in private, local-currency lending for clinics and other health service providers.

While CGSs on their own may not necessarily create increased budget headroom for national immunization programs, they can be leveraged to ensure a consistent stream of funds for immunization. In Mexico, where delays in the federal budget approval process create delays in budget transfers to the federal vaccine procurer CeNSIA, vaccine shortages often result, as manufacturers have typically sold off their supply to other markets by the time the funds are made available.⁴⁶ Under a CGS, CeNSIA could secure the funding from a lender to begin the procurement process early enough to secure a consistent vaccine supply.

5. PERFORMANCE-BASED FINANCING

What It Is

Performance-based financing (PBF) is an incentive payment mechanism that, at least partially, funds health providers on the basis of their performance to meet targets or undertake specific actions.⁴⁷ This can be done by measuring the quantity of services rendered and the quality of those services. PBF differs from other incentive payment mechanisms in that it targets the providers of services rather than the beneficiaries. It can be used to generate demand for underused services, improve care quality, and correct inefficiencies in a delivery system.⁴⁸ PBF may also be referred to as “pay-for-performance” (P4P) or “results-based financing” (RBF).⁴⁹

⁴⁶ Wilkason et. al (October 2018).

⁴⁷ World Health Organization (2018d).

⁴⁸ Eichler et. al (2009).

⁴⁹ RBF programs may focus more on outcome indicators rather than structural, process, or output ones.

Objective of the Mechanism

PBF is meant to maximize health outcomes while simultaneously increasing provider autonomy in how agreed-upon targets are achieved. Since payments are made to providers only if they meet established targets, there is less emphasis on how those targets are achieved and instead more of a focus on meeting the established targets. This is meant to encourage providers to tailor their approach to best fit the needs of their patients by providing them with the autonomy to pursue those approaches. In systems with poor-performing programs, PBF can incentivize positive behavior change among providers.

Enabling Factors

Transparency: To be successful, PBF requires clear and reliable reporting of outcomes and performance monitoring, as these data provide the basis for the PBF payment scheme to function. Data must be regularly and accurately captured and must be free of manipulation from implementing agencies. This requires strong financial management and health information systems as well as robust monitoring and evaluation capabilities.

Appropriate targets: The outcomes against which providers are measured need to be clearly articulated, mutually agreed-upon, measurable, attributable, and achievable. Providers must have the necessary training and support to design, articulate, and achieve these outcomes. Targets that are too aggressive may demoralize participating providers if they feel they cannot be achieved. Conversely, targets that are not ambitious may not incentivize providers to innovate in program delivery and thereby fail to bring about the desired change.

Careful consideration to structure: Payments need to be structured to incentivize intended behavior without compromising the delivery of other health programs. PBF programs should also be designed to influence what is most needed. For example, if the challenge the health system is facing is one of underuse of a needed service, the reward should be tied to increasing usage. Regardless of the behavior the PBF scheme is intended to address, the incentive should be sufficient to motivate providers to achieve the desired change. Additionally, recourse must be given to PBF funders, be it ministries of health, insurance schemes, or donors, to penalize participating providers who fail to meet targets.

Sustainability: Historically, many PBF programs, including those that encompass immunization indicators, have been donor driven and funded, raising questions about their political and financial sustainability. PBF schemes must be carefully costed and budgeted to ensure their long-term feasibility. This includes creating or updating financial flow maps to identify all sources of financing in the health sector, along with a strong understanding of current and potential bottlenecks.

Capacity to implement: As with any financing mechanism being considered, the legal and regulatory environment must be reviewed to ensure PBF is allowable.

Example Models

Argentina uses a formal PBF program that measures quantity as well as quality of service delivery for incentive payments. Plan Nacer, a World Bank-supported program, was initiated in 2004 to improve maternal and child health.⁵⁰ The program functioned by paying an additional US\$5 premium to health facilities for enrollees, targeting poor pregnant women and children. Funds were held at the Ministry of Health, transferred to provinces, and then transferred to facilities. Of the total premium payments, 60% were made monthly, and the additional 40% were paid every three months based on performance against a set of indicators. These payments were in addition to normal salary transfers and could be used by facilities as they pleased. Indicators for “Effectiveness of Prenatal Care” included the delivery of the tetanus vaccine for pregnant women and “Immunization Coverage” for infants. Though enrollment in the program was completely voluntary, the financial incentive was designed to motivate providers to enroll individuals and provide them with high-quality care. By the end of 2008, 82% of the eligible population was enrolled in priority provinces. By the close of the loan in 2012, when the program reached national coverage, over two million women and children were enrolled in the program.



Results from the program have been positive. High levels of enrollment in Plan Nacer increased the number of people accessing the health system. An impact evaluation showed improved birth outcomes and decreased neonatal mortality. Plan Nacer beneficiaries in large hospitals saw a 74% drop in neonatal mortality. The World Bank attributes these outcomes, in part, to improved vaccination for mother and child. Plan Nacer has since been brought to national scale, expanded to include additional populations, and re-branded as Plan SUMAR.

Though Plan Nacer was a World Bank-supported program and operationalized by the Ministry of Health, other countries with insurance mechanisms in place can use provider payments by the insurer in a similar manner. Payments from purchasers to providers can be made contingent upon performance, whether that be outputs of vaccinated individuals or a more involved scheme that includes quality or outcome indicators. A number of countries, from Colombia to the Czech Republic, use fee-for-service payments that essentially reward providers for their immunization outputs.

6. IMPACT BOND

What It Is

Impact bonds are a type of results-based financing that blends public and private sector resources in a mechanism that allows for risk-sharing across outcome payers, private investors, and the service delivery or implementing agencies. In an impact bond, similar to a performance-based financing mechanism, results at the process, output, or outcome level are decided in advance by the outcome payers and the implementing agencies. To allow the implementing agencies to access resources to implement the interventions,

⁵⁰ Center for Global Development (2015).

private investors provide capital up front for interventions that are intended to have a positive social impact. In return, those investors are repaid by an outcome funder based on whether agreed-upon results are achieved. If results are not achieved, investors stand to lose some, or all, of their investment depending on the risk-sharing agreement with the implementing agencies and the payment levels set by the outcome payers. Impact bonds can be further categorized by who the outcome funder is. In a social impact bond (SIB), the outcome funder is a government entity, while in a development impact bond (DIB), the outcome funder is a third party (typically a donor or philanthropist). DIBs transform social problems into “investable” opportunities and create incentives for investors to put in place the necessary feedback loops, data collection, and performance management systems required to achieve desired outcomes, resulting in a bottom-up, client-centered, and generally more effective, approach.⁵¹

Impact bonds require, at a minimum, four actors:

1. **Outcome payer:** This could be a government agency or a funding agency (donor or foundation) that is willing to pay for the outcomes to achieve the social impact. An outcome payer is legally obligated to pay back the initial investors should the specific target outcomes be met.
2. **Service provider:** This could be a government or nongovernmental agency that implements programs to achieve the social outcomes being pursued. Service providers tend to take a portion of the risk in terms of getting the full amount paid by the investors for achieving the agreed-upon results.
3. **Investor:** This could be individuals, foundations, or private investment firms that provide funding to the service provider as up-front working capital to implement the programs. Financial returns to the investors are tied to the achievement of the outcomes. Investors take some or all of the risks in terms of getting paid by the outcome payer/s for the agreed-upon results.
4. **Independent evaluator:** This could be a governmental, nongovernmental, or private research and evaluation agency that verifies program outcomes.⁵²

DIBs hold enormous potential as a new type of outcomes-based contract that can bring together the private sector, civil society organizations, governments, and donors in a way that captures and complements the strengths that each player can bring to achieve development outcomes, while helping them to overcome their respective weaknesses. Impact bonds are financial instruments that can bridge the gap between investors and opportunities, as well as between financial results and social benefits.⁵³

Objective of the Mechanism

1. **Impact bonds transform neglected social problems into investable opportunities.**
Impact bonds can help to raise awareness of social issues within the private sector and focus private sector actors on areas traditionally considered to be the concern of the public sector, such as expanding education or reducing unemployment. By introducing the potential for economic return should a social outcome be met, the private sector can see that economic value and social value do not have to be separate. Impact bonds

⁵¹ Center for Global Development & Social Finance (June, 2013).

⁵² Instiglio (2018).

⁵³ Center for Global Development & Social Finance (June, 2013).

are a public-private partnership using a structured financial instrument to facilitate performance-based contracts.

2. Impact bonds alleviate up-front capital constraints within the public sector. They are structured to leverage private finance to front the cost of delivering public and social services that can be expected to save money for governments in the long term. Often, governments recognize the value of such interventions yet face cost constraints that prevent the financing and delivery for them.
3. As with other forms of results-based financing, the emphasis on outcomes, rather than how they are achieved, is meant to stimulate innovative approaches in terms of implementation and service delivery to help meet goals. This can lead to testing new ways of doing things or finding efficiencies where possible. Impact bonds are a combination of social investing and payment by results.
4. Impact bonds expand the pool of investors and help shift risks from the public purse to the private purse.

Enabling Factors⁵⁴

Meaningful and measurable outcomes: The measured outcomes are the definitive criteria for assessing whether an impact bond was successful. Thus, there can be incentives for service providers to include only those clients or beneficiaries perceived to be “easier” to serve and omit those that could be harder to support. The outcomes selected must therefore be clear, specific, and difficult to manipulate to prevent gaming of the system, but must also be easily measurable. Impact bonds are typically used for proven, cost-effective, and evidence-based interventions where the outcomes (1) are relatively easy to achieve within a reasonable time horizon, and (2) can be attributed to the intervention.

A reasonable time horizon to achieve outcomes: The duration of the bond should be selected so that the outcomes being pursued have enough time to be achieved and measured. The time horizon should also be structured to ensure that investors and outcome funders are willing and able to make and receive payments. Depending on how the bond is structured, this may require committing government funds to repay investors out of the budgets of future legislators.

A strong and independent evaluator: One of the challenges of an impact bond is being able to accurately determine what effects are directly due to the services delivered via the bond and what effects are attributable to other factors. Given these complexities, an independent evaluator with technical expertise in performing such assessments should be used to determine if the intended outcomes have been met. It is also important to consider that success in meeting objectives may take a different form than initially anticipated. For example, an education DIB in India aimed at improving school enrollment for girls found that fewer girls were enrolled in school upon conclusion of the impact bond period than at the onset. However, those girls targeted by the bond saw lower rates of school dropout than their peers who were not part of the program.

Supportive legal and political conditions: The regulatory and legal framework must allow for governments to support the services being delivered via the impact bond. Sensitivities regarding private investors funding services that are considered to be the responsibility of the public sector require a strong political champion to support the bond. Governments must also be able to pay for outcomes upon conclusion of the bond, should it be a social

⁵⁴ Gustafsson-Wright et. al (July 2015).

impact bond. As many bonds mature over a period of multiple years, the public funds to repay must be budgeted beyond the typical fiscal year.

Example Models

The first healthcare DIB, the Utkrisht Impact Bond in Rajasthan, India, was established in response to high maternal and newborn mortality in the region, which was 47% and 14% higher than the national average, respectively. The Utkrisht bond aims to improve the quality of maternal care in Rajasthan's private health facilities by supporting up to 440 small healthcare organizations to meet new government quality standards and adhere to them over the long term.⁵⁵ For inclusion in the impact bond, 360 private facilities were identified (representing 20% of private facilities in Rajasthan), all of which will be supported by the implementers in their preparations for accreditation. For each facility meeting the target metric, \$18,000 will be paid: 25% upon verification that the facility has reached a defined progressive standard and 75% upon verification that a facility is ready for accreditation. Results will not be measured until 2021. Merck for Mothers is serving alongside USAID as an outcome payer.⁵⁶



While no impact bonds explicitly target immunization to date, there is significant potential to design an impact bond that supports new vaccine introduction. Impact bonds are best suited for interventions that target well-defined problems affecting known populations, where costs and benefits can be accurately measured.⁵⁷ While many countries face resource constraints preventing them from adding new vaccines to their NIPs, an impact bond could provide the up-front capital needed to finance a new vaccine introduction. A successful immunization program that achieves high coverage creates savings for governments in the long term in the form of reduced treatment costs, improved productivity, and reduced absenteeism. An impact bond could be designed to repay investors upon the realization of such potential targets.

CONCLUSION

Innovative financing mechanisms are a great way to overcome many barriers that national immunization programs face, from resource generation to program performance. Though a number of mechanisms hold promise, their use must fit the country context. It is important for any stakeholder interested in an innovative financing mechanism to understand the enabling factors and what contributes to the success of a mechanism before applying it. Private sector companies can help to move this agenda as sources of capital, as facilitators, and/or as technical resources. Innovative financing is an open space in many country contexts and should be further explored as a pathway to

⁵⁵ Convergence (January 2018).

⁵⁶ Merck for Mothers (2018).

⁵⁷ Centers for Disease Control (n.d).

overcome immunization financing challenges and to improve the sustainability of immunization financing across the globe.

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