Improving Sustainable Immunization Financing in Colombia by Leveraging the Public Insurance System

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**ACRONYMS AND ABBREVIATIONS**

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACEMI</td>
<td>Asociación Colombiana de Empresas de Medicina Integral (Colombian Association of Integral Medicine Businesses)</td>
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<tr>
<td>ADRES</td>
<td>Administradora de los Recursos del Sistema General de Seguridad (Administrator of the General Health System’s Resources)</td>
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<tr>
<td>AFIDRO</td>
<td>La Asociación de Laboratorios Farmacéuticos de Investigación (Colombian Pharma Association)</td>
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<tr>
<td>ANDI</td>
<td>La Asociación Nacional de Empresarios de Colombia (National Business Association of Colombia)</td>
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<tr>
<td>BCG</td>
<td>bacille calmette-guerin</td>
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<tr>
<td>DTP</td>
<td>diphtheria tetanus pertussis</td>
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<td>EPS</td>
<td>Entidad Promotora de Salud (Health Promotion Entity)</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<td>NCD</td>
<td>non-communicable disease</td>
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<td>NIP</td>
<td>National Immunization Program</td>
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<td>PBS</td>
<td>Health Insurance Benefits Package</td>
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<tr>
<td>PPV</td>
<td>pneumococcal polysaccharide vaccine</td>
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<td>UPC</td>
<td>public insurance premium</td>
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CHALLENGES TO PUBLIC IMMUNIZATION IN COLOMBIA AND POTENTIAL FINANCING SOLUTIONS

Additional and sustained investments are needed for Colombia’s National Immunization Program to expand access in response to a changing disease burden and ongoing demographic transition, and to further improve program performance. With a program schedule that includes 22 vaccines that cover 26 different diseases, Colombia is a regional leader in public immunization programming. However, the Colombian National Immunization Program (NIP) has a pediatric focus with limited life-course vaccines available for adolescents and adults. Despite an increase in the NIP budget at the central level in the recent years, there have been no additional resources allocated for expansion of the current schedule. The last vaccine introductions were an inactivated polio vaccine and a varicella vaccine in 2015. Vaccination coverage rates for the current schedule are improving, though they are generally lower as the target cohort age for a vaccine increases and vary greatly between municipalities and departments, falling as low as 16.7% coverage of DTP3 in Cepita in 2018.1

In order to expand the public immunization schedule and improve performance of the NIP, Colombia needs to find new resources and improve the efficiency in the use of existing resources. As part of the Sustainable Immunization Financing Project, the overarching objective at country level is to increase national budgets, and ensure strong systems to absorb the increased budgets efficiently, for sustained and growing immunization programs.2 With this goal in mind, Colombia must find ways to 1) increase their resources for an expanded schedule in line with their disease burden and national priorities, and 2) improve incentive systems to use existing resources for maximizing program outcomes. To support Colombia’s progress towards sustainable immunization financing, innovative financing mechanisms can provide the needed impact.

There are a range of financing mechanisms that can support both of Colombia’s objectives. 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. They may also be successful at making funds more rapidly available. Examples of novel funding mechanisms may include insurance contributions, earmarked taxes, or trust funds.3 Furthermore, performance improvement mechanisms allow better use of existing funds. They can stimulate action to achieve an objective or improve accountability structures by inserting the right 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.

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2 The Sustainable Immunization Financing project is implemented by ThinkWell and funded by Merck Sharp & Dohme Corp. (MSD), a subsidiary of Merck & Co.
Following a workshop with key national stakeholders in Colombia’s health system, two financing mechanisms were shortlisted as potential solutions to the challenges and opportunities identified in the national immunization program. The workshop, held in Bogotá in June of 2019, resulted in a common understanding of the key NIP challenges and opportunities, as well as a general consensus that innovative financing mechanisms could help to ensure a sustained and growing national immunization program. Furthermore, group discussions during the workshop identified two innovative financing mechanisms that could potentially be applied to the Colombian context:

1. Performance-based financing mechanism to address the challenges in program performance, including varied population and vaccine coverage rates

2. Leveraging the public insurance mechanisms for the necessary resources to add new adult and adolescent vaccines, responsive to the changing disease burden and demographic transition.
This report will explore the rationale for leveraging the public health insurance system to tackle schedule expansion challenges in Colombia’s NIP, and will include the potential options for the Colombian context as well as actions to undertake for additional resourcing.

LEVERAGING STRATEGIC PURCHASERS FOR IMMUNIZATION

Strategic purchasing is realized when the purchasing of health services is done deliberately to achieve intended outcomes. Purchasing is the act of paying an implementing partner for service delivery. Strategic purchasers tend to be public insurance agencies outside of Ministries of Health. They contract public (and private) providers so that the Ministry is not paying itself for services and thus creating more accountability in the system. To be a strategic purchaser, payments are made deliberately with outputs or outcomes in mind. By being strategic, purchasers can use resources more efficiently to achieve intended objectives. Strategic purchasers decide:

1. What services are to be purchased (what will be in the benefits package – PBS in Colombia)?
2. Who are services to be purchased for (who will be the beneficiaries)?
3. Who are services purchased from (which providers will be contracted)?
4. How are services to be purchased (what provider payment mechanisms will be utilized)?

The use of strategic purchasing for immunization is a global trend and there are many examples of public insurers adding vaccines outside of the NIP to their benefits package to increase access.\(^4\) Non-NIP vaccines can be included for high-risk cohorts or a broader application. Insurers may offer partial reimbursement or a fully reimbursed program for their target cohorts. For example, Colombia’s Health Promotion Entities (Entidad Promotora de Salud; EPS) Famisanar and Coosalud both offer a pneumococcal vaccine for high risk adult patients. The Czech Republic has multiple public insurance purchasers which can, and do, add vaccines outside of the NIP to their benefits packages. They can be offered as full or partial reimbursement. Israel also offers broad access to many vaccines through its strategic purchaser. A number of vaccines are available for a co-pay, which can limit the financial pressure on the public system that such a broad schedule comes with, but can also limit access and uptake. Depending on the country context, the potential exists to grow immunization programs and improve their performance by leveraging strategic purchasers.\(^5\)

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\(^4\) Coe, Martha and Yasmin Madan. (2018). *Strategic Purchasers and Immunization: How to Leverage these Major Players for Program Improvements*. ThinkWell: Washington, DC.

POTENTIAL FOR LEVERAGING STRATEGIC PURCHASERS FOR IMMUNIZATION IN COLOMBIA

Though Colombia has a relatively full public immunization schedule, access to adolescent and adult vaccines are limited. The vaccine schedule in Colombia is in line with the region, but despite this, the NIP is limited in access to adolescent and adult vaccines. Despite changing demographics towards an aging population and the disease burden shifting towards non-communicable diseases (NCDs), the NIP is mainly treated as a pediatric program. Life-course vaccines for adults, such as pneumococcal, hepatitis B, and shingles, among others, are not included in the NIP schedule. These vaccines currently require additional resources from EPS and municipalities in order to provide them to their target populations and tend to be provided on an ad-hoc basis, thus impacting equity and access for the entire population.

EPS in Colombia are already engaged with the NIP, but this relationship can be developed further in order to expand the public immunization schedule. In Colombia, the EPS are the public insurers that can be strategic purchasers. The EPS are responsible for immunization service delivery as NIP vaccinations are included into the Health Insurance Benefits Package (PBS) (Figure 4). EPS purchase services included in the PBS from their contracted providers. For immunization service delivery, they tend to use a mix of capitation and output-based mechanisms (e.g. Fee-For-Service) for their provider payments. Though NIP vaccination service delivery is their mandated role in the NIP, some EPS do more than others in supporting public immunization. For instance, they use their own resources to provide

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6 95% of Colombia’s population is covered by an EPS. NIP vaccinations for the uninsured population is covered by departments and municipalities.
messaging to beneficiaries regarding immunization. Some EPS, like Famisanar and Coosalud, procure and provide additional vaccines outside of the NIP as part of a risk-management strategy. Others may provide additional vaccines on a more passive or ad-hoc basis in response to individual prescriptions or tutelas that are claimed for reimbursement from ADRES or departments. Though there are multiple ways to engage on public immunization beyond reimbursing the delivery of the NIP, the ad-hoc nature of these extra pieces is not equitable or efficient.

**Figure 4. Immunization Program Fund Flow in Colombia**

![Diagram showing the fund flow](Image)

Source: Author’s Rendering

Three actors finance vaccine procurement in Colombia, but expanding sustainable and consistent access to an expanded schedule of vaccines along the life-course may fit best under the public insurance system.

— **NIP Agency under the MoH:** In Colombia, where no law guarantees access to non-pediatric vaccines, the NIP is reluctant to expand the focus of their schedule to include more access to adolescent and adult vaccines.

— **Sub-National Governments:** Expansion of the public immunization schedule at the sub-national level is very ad-hoc. Not only must sub-national governments have supportive data and the political will to push this agenda, but their locality must reach 95% coverage of fully immunized children in order to add to the schedule. Most do not reach this threshold of coverage.

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7 In-person stakeholder interview with ACEMI
8 In-person stakeholder interviews with Bogotá health secretariat and NIP office.
— **Insurance System:** The EPS, on the other hand, will directly benefit from the cost-effectiveness of adding preventive services, such as additional vaccines. Vaccines are a great investment for risk management and some EPS have precedent in providing vaccine benefits beyond the NIP to their beneficiaries. Particularly in a changing health context where populations are aging and NCDs are increasing (noting that some vaccines including human papilloma virus, hepatitis B, and pneumococcal are associated with specific NCDs), the incentives are in place for EPS to offer non-NIP vaccines to beneficiaries or to increase access to cohorts not included in the NIP. By codifying additional benefits into the benefits package, there is guaranteed access nationally and a level of permanence. There are also global learnings to help guide this innovation.

**Figure 5. Potential Avenues for Expanding the Public Immunization Schedule**

The opportunity to leverage Colombia’s strategic purchasers to increase vaccine benefits is a medium- to long-term vision for immunization that will require potentially a few years of investment and advocacy. Over-expenditure due to a legislative loophole has pushed the public health system into a situation where both ADRES and departments/large municipalities are behind in funding the additional expenses (ADRES for contributory and departments/large municipalities for subsidiary regime) and the EPS are unable to pay providers for delivering these additional services.9,10 With financial sustainability and cost

9 Currently, EPS budgets are exclusively funded from insurance premiums (UPC) that are computed in accordance to the expected health expenditure of services included in the PBS.

containment at the heart of ongoing regulations, expansion of the benefits available through insurance is a medium- to long-term mission.

**ENABLING INCREASED STRATEGIC PURCHASER ENGAGEMENT ON IMMUNIZATION IN COLOMBIA**

To enable an expanded schedule through public insurance mechanisms, two pillars of strategy – evidence and additional resource mobilization – need to move forward in parallel. Evidence will provide information regarding need and cost-effectiveness for the prioritization of which new vaccines to introduce. Evidence will also provide the amount of additional resources needed for a new vaccine introduction. Evidence would thus support any advocacy efforts for increased resourcing and should be considered as part of a two-pronged strategy where resourcing and evidence enable each other.

**Evidence:** This includes information on prioritized vaccines for introduction based on the changing disease burden and demographic transition in Colombia as well as cost-effectiveness analyses. This is outside of the scope of the Sustainable Immunization Financing project, though it is an important track to pursue for an expanded NIP schedule in Colombia.

**Resource Mobilization:** The priority challenge for leveraging public insurance mechanisms for expanded schedule of life-course vaccines is a resource mobilization challenge. Given the evolving insurance scheme regulations (Law 1955/2019) and their focus on cost containment, the discussion around new resources for expansion will inevitably revolve around how they can be tapped to make this happen in the future rather than in the short-term. For the purposes of this analysis, we will consider potential resourcing opportunities from 2020 onwards. At that point, many of the ongoing reforms will be in place. Departments will no longer be paying for non-PBS services and some national resources for immunization will be available in the ADRES budget.

A small group of key stakeholders prioritized identified opportunities for resourcing public immunization schedule expansion in Colombia. In August 2019, ThinkWell facilitated a small group forum with key stakeholders, including AFIDRO, ACEMI, and the National Federation of Departments. During this forum, the stakeholders were presented with a range of national and sub-national resourcing options for leveraging the insurance mechanism. Each option was considered with a detailed pros and cons analysis which resulted in a prioritized list of options presented below. For more information on the opportunities and barriers for each individual resourcing opportunity, please refer to Annex 1. The prioritization was based on the impact (size of resources) and feasibility (ability to influence political will).

**Prioritized Resourcing Options**

a. **ADRES Line Item** – This line item has been used in the past as a contingency fund to finance shortfalls in NIP procurement needs, e.g. US$16 million in 2017 and

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11 Insights in this section are informed, in part, by a small group forum that was held with representatives from AFIDRO, ACEMI, and the National Federation of Departments.
US$22 million in 2018.\textsuperscript{12} Given the recent increases in the NIP budget, it is likely that these funds will not be required to meet procurement needs in the future and thus present an opportunity to re-direct these funds for the procurement of non-NIP vaccines.

b. \textbf{Public Health Master Account} – The Public Health Master Account resources are specifically earmarked for public health (promotion and prevention activities) and are allowed by law to be used for NIP vaccine procurement at the sub-national level. These factors and the unspent reserves, make this resourcing option feasible for investing in an expanded schedule. In the past, these resources have been used for informal and non-recurrent sources of expenditure, e.g. vaccine campaigns. Further analysis is required on how to channel this opportunity into financing the national PBS rather than the Collective Interventions Plans produced by individual sub-national governments. According to stakeholders, these resources could be channeled towards an expanded schedule of vaccines under insurance through two parallel strategies.

1) \textbf{Expand the immunization schedule} under the PBS. Refer to the recommendation above to pursue evidence generation in order to prioritize vaccines for introduction into the national schedule.

2) \textbf{Mobilize additional resources}. The strategy is to ensure systematic and efficient use of sub-national resources such as the Public Health Master Account within the insurance mechanisms through the revised Public Insurance Premium (UPC).

The UPC is decided by decree and calculated in quarter 4 of every year for the following year. By allocating a portion of resources from the Public Health Master Account for insurance premiums, the health system has the opportunity to increase their public benefits and thus expand the national immunization schedule. This option creates an opportunity to formalize the use of sub-national resources for immunization. In addition, it aims to ensure an increased predictability of funding

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{box1}
\caption{Box 1. The Link Between UPC and PBS}
\end{figure}

\begin{itemize}
\item The UPC is the premium paid for an individual’s access to the standard benefits package (PBS). If the UPC increases, it can pay for more services to be included under the PBS. The challenge will then lie in ensuring the new services focus on preventive care, and immunization specifically.
\end{itemize}

\textsuperscript{12} In 2017, Fosyga transitioned to ADRES. US$ 16 million figure was identified in Fosyga’s 2017 budget under the budget line: “National Immunization Program – NIP” (Programa Ampliado de Inmunizaciones – PAI).
levels allocated at the sub-national level and efficiency in the use of these funds by pooling resources in one place and channeling them through strategic purchasers. Channeling new funding lines into this process for the benefit of expanding the public immunization schedules needs to be further explored. At the moment, sub-national resources are only allowed to be allocated to the subsidized regime UPC.

c. **Other Sub-National Resources:** Whereas the public health master account is earmarked for public health and is already used for some NIP costs, a number of other resources are generated at the sub-national level that could be better leveraged for public health and immunization.

   a. *Sin taxes* on alcohol, tobacco, and gambling are already used to fund the subsidized regime’s UPC, among other health costs. Sin tax revenues are also tapped by departments to cover non-PBS expenditures generated by prescriptions and tutelas for subsidized regime beneficiaries. The opportunity that exists with this resource relies on the implementation of the 2019 National Development Plan which will reallocate non-PBS expenditure payments for the subsidized regime from departments to ADRES. Those sin tax revenues that had been used for non-PBS expenditure prior to 2020 can then be reallocated to the UPC.

   b. *Royalties* funds that are already available for investment in social programs can also be mobilized towards the insurance system if new vaccines are positioned as a cost-effective investment (refer to evidence point above). A key consideration for this option is the pathway that can be created to move these sub-national resources from the sub-national level into insurance premium pooling at the national level.

   d. **Co-pays:** Currently, co-payments have a very limited scope within the insurance scheme and do not apply for immunization in the Colombian context. A comprehensive reform of the co-pays could support the MoH and Ministry of Finance as they push the public health systems towards greater financial sustainability. Whether creating tiered rates or limiting co-pays to the contributory regime, a number of options exist to mobilize sources at the individual level as well.
Creating a Comprehensive Resourcing Plan

The majority of potential resourcing options have limitations in their national application. All five options, with the exception of the ADRES budget line, are generated at the sub-national or individual level. Though sin tax revenues have been leveraged for the subsidized regime UPC, the other sources have not been applied in this way. Additionally, payments into the public insurance system from sub-national governments are only allowed to be applied to the subsidized regime. This creates a gap for these options. Within the current regulatory environment, all sub-national resourcing options – if mobilized for the expansion of the UPC and associated benefits – would only apply to beneficiaries of the subsidized regime (about 50% of the covered population). As such, it is critical to have additional resourcing options for the contributory regime.

Resources at the sub-national level can be leveraged for national impact. Despite current limitations for sub-national resourcing options, there is an opportunity to tap into the existing ad-hoc use of these resources to pursue a higher degree of impact and efficiency. To overcome barriers regarding the application of sub-national resources, Colombia can pursue a combination across resource options to cover the gaps. For example, the ADRES budget line could be leveraged to generate a fund-matching scheme that incentivizes sub-national allocations for the introduction of new vaccines through the insurance mechanism by matching all local inputs with national resources. This would provide a channel for sub-national resources to move to the national level. By pooling these resources, there would be greater predictability in funding for immunization program expansion, and there would be a level of efficiency gained. By leveraging both sub-national resources and the ADRES budget line, the expanded schedule could be provided to all Colombians – contributory and subsidized.
Though each resourcing option exists in its own right, we recommend that Colombia develops a comprehensive packaging option for the systematic introduction of new vaccines. To advocate for the systematic introduction of proposed vaccines to both contributory and subsidized regime, it is relevant not to consider national and sub-national resourcing options individually, but as potential combinations. In order to introduce new vaccines into the PBS for both contributory and subsidized regimes, it is required to leverage the ADRES budget line. These resources present an opportunity to catalyze matching funds from the sub-national level and thus create a comprehensive financing case for the expansion of the PBS for the whole public insurance system.

Our recommended package of options is:

1. Unlock the ADRES budget line to finance expanded access for the contributory regime and also structure a matching fund for the subsidized regime that will incentivize sub-national resource allocation

2. Generate an advocacy strategy to improve sub-national political will to increase resource allocation to for expanded access under the subsidized regime (public master health accounts and royalties were deemed the best options by the small group forum, though sin taxes are also an option).

3. Explore co-pay options for some vaccines that benefit limited target populations.