Discussion

Beyond methods and studies: Building institutions for better public spending on vaccination

Amanda Glassman*

Center for Global Development, 1800 Massachusetts Avenue NW, Third Floor, Washington, DC 20036, United States

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While overall public spending on health as a percentage of GDP remains relatively low, as their economies grow, most governments in Latin America and the Caribbean (LAC) are spending more per person on health care and public health. In the area of vaccines, public spending has also grown; between 2010 and 2011 alone, the World Health Organization (WHO) estimated that public spending on vaccination in LAC grew by 15% on average [1], although there is considerable heterogeneity in per capita spending between countries.

In many ways, LAC has been and remains a leader in vaccine introduction relative to other regions. Even so and in spite of increasing spending overall and global evidence on the potential value of new and underutilized vaccines [2], there is uneven consideration and adoption of new vaccines. As of 2012, less than half of the 48 LAC countries and territories have adopted the Rotavirus vaccine, 21 countries and 5 territories have adopted the pneumococcal vaccine, and six countries have adopted HPV as part of their national immunization programs [3].

Many LAC governments have established WHO-recommended National Immunization Technical Advisory Groups (NITAG) to advise on new vaccine adoption and the national immunization program in general [4]. In spite of these efforts, Andrus et al. identified instances of decision making without reference to available evidence, limited use of cost-effectiveness analyses in decision making, and limited technical capacity to carry out economic evaluation [5]. Further, a 2008 report of the independent Commission on the Future of Vaccines in Latin America also noted the absence of cost-effectiveness analyses using national data, information on costs and risk groups for specific preventable diseases, and disaggregated data on local and municipal levels as major obstacles to better priority-setting for vaccines [6].

Even where countries had undertaken cost-effectiveness analyses, the Commission found that the budgetary impact of a vaccine was not studied and, as a result, a major gap persisted between evidence generation activities and budget decisions to authorize necessary funding for a recommended vaccine. A study of new vaccine adoption processes in five Latin American countries by Oliveira et al. (2013, in this volume) concludes that “the factors contributing to new vaccine introduction in the countries evaluated are not generally grounded in a systemized approach.”

Increased investment may be needed, as NITAG in the region are often ad hoc, poorly funded and staffed entities, without an explicit legal, institutional or budgetary framework for operation. In many countries it is unclear how a NITAG’s technical recommendations will connect with budget decision-making. This may be one reason why some countries in the region may miss early introduction of potentially cost-effective vaccines during a period of growing public spending.

The need for increased technical input when considering the introduction of new vaccines and immunizations is not unique to LAC, but a more general problem facing priority-setting efforts in the health sector in middle-income countries. A recent Center for Global Development working group on priority-setting in low- and middle-income countries found that many public budgets continue to be input-based (salaries, facilities, supplies), ad hoc and reflect historical allocations, rather than intervention-based and proactive toward new technology adoption [7]. Although countries are increasingly interested in explicit priority-setting as demonstrated by the widespread adoption of essential medicines lists and health benefits plans or guarantees, existing processes frequently lack an organizational home and budget that would allow for on-going use of economic evaluation, budget impact analysis and deliberation to assess alternatives and make recommendations on coverage and reimbursement choices. Further, there are many methodological, data and capacity challenges: epidemiological, demographic and cost data – sometimes very dated – from other countries are used.
in economic evaluation; cost-effectiveness thresholds are based on a WHO rule of thumb never intended to be generalized worldwide; the budget impact of new technologies is not usually considered; and appropriate counterfactuals in economic evaluations are often missing.

Launched in 2006, the Pan American Health Organization’s ProVac Initiative is intended to fill some of these gaps in immunization decision-making, and has focused and led on the development of economic evaluation methodologies, tools and studies using national evaluation methodologies, tools and studies using national data and building a network of academic centers of excellence in economic evaluation of vaccines to generate greater capacity to carry out and interpret studies. The ProVac Network of Centers of Excellence is currently home to five academic institutions, and functions as a communication hub and knowledge center, providing methodological guides and training material [8]. ProVac also supports the TRIVAC decision support model, which has been used to provide evaluative support for the pneumococcal, rotavirus, and Hib vaccines – and to date has been used in cost-effectiveness evaluations in 14 countries in Latin America [9]. ProVac uses technical cooperation with countries to “strengthen the structure and the processes for decision making at the country level” [10]. In this regard, it provides support to Ministries of Health to establish, formalize and strengthen NITAGs.

This is certainly the way forward for support to priority-setting: building the capacity to generate economic evaluation and related analyses, while also building the capacity to use this information in decision-making.

In building the capacity to use the evidence, the Center for Global Development working group found that the existence of an explicit legal and institutional framework for policy making, a routinely-allocated budget and staff, a transparency and conflict of interest policy, and a clear connection to decisions on coverage or reimbursement are essential features of successful priority-setting in the health sector [7].

A key question in designing support to NITAGs in the future then is whether these should be part of or separate from a broader and improved priority-setting process on the uses of public spending. Building on experiences in OECD countries, NITAGs tend to be independent from decision-making processes on the uses of broader public budgets for health, such as health benefits plans and related. This arrangement may be justified by the existence of separate budgets for vaccination and for the rest of health spending, as is the case in 25 LAC countries with a separate budget line item for vaccination [11].

However, the incentives implicit in this separateness may also be problematic for priority-setting as trade-offs in the use of public monies may not be adequately addressed on either side of the divide. For example, vaccine costs and effectiveness may not be compared to the costs and effectiveness of the existing standard of care for a disease or compared to other new uses of health spending, resulting in overstated or understated cost-effectiveness ratios. Savings associated with a coverage/reimbursement decision on a vaccine may not accrue to the non-vaccine budget, thus limiting incentives to reallocate toward vaccines. General budgets funding health benefits plans may be attached to individuals or households and will grow automatically as populations grow, whereas vaccination budgets are treated separately and may not benefit from an automatically growing budget allocation and thus the space to consider new vaccines.

The articles in this supplement lay out lessons learned in generating the evidence base necessary to support the decision making process around new vaccine introduction. Together, the work suggests that better priority-setting institutions are needed as leverage to translate evidence on the cost-effectiveness of new and under-utilized vaccines into public budget decisions. And importantly, priority-setting should not be seen as solely a methods, data or technical issue, but also as an institutional, political and budgetary process that requires attention in its own right.

Conflicts of interest statement

None declared.

References


