Vaccine prices are too high. That’s the misconception clouding the judgment of many decision-makers in Asia, causing them to conclude incorrectly that rotavirus vaccines would not be a cost-effective way to save lives and reduce illnesses caused by diarrhea in their countries. The summary that follows highlights key factors influencing these decision-makers and recommends solutions for addressing the perceived financial barriers impeding rotavirus vaccine introduction in Asia.

Diarrhea is one of the world’s leading killers of children, and rotavirus is the most common cause of severe diarrhea. It is extremely contagious. Improvements in hygiene, sanitation and drinking water alone—which prevent other forms of diarrhea—do not adequately prevent rotavirus. Today, vaccination offers the best protection against rotavirus.

The World Health Organization (WHO) recommends that all countries introduce rotavirus vaccines into their national immunization programs (NIPs). Despite this, as of November 2013 only 49 countries have done so—only two Asian countries have introduced the vaccines: the Philippines added the vaccines to their NIP and Thailand introduced the vaccines in one province.

Asian countries have been slow to introduce rotavirus vaccines despite having robust data to inform the decision-making process:

- **Proof of local disease burden.** WHO recognized the importance of collecting local disease burden data for policy-makers and recommended that simple generic protocols be developed and regional rotavirus surveillance networks be established. The Asian Rotavirus Surveillance Network, the first such network to be established, collected and widely published data on the disease burden for 21 countries including China, India, Indonesia, Pakistan and Bangladesh, and showed that for a number of countries more than 50 percent of diarrhea-related hospital admissions were due to rotavirus. Today, Asia has excellent disease burden data to inform decision making.

- **Proof of an available safe and effective vaccine.** Rotavirus vaccine efficacy trials in low-, middle- and high-income Asian countries (such as Bangladesh, Hong Kong, Singapore, Taiwan and Vietnam) have demonstrated a significant public health impact, even in countries where modest vaccine efficacy was observed.

- **Proof of cost-effectiveness.** When evaluating whether to introduce a vaccine into the NIP, decision-makers weigh costs and benefits—mainly, the price of the vaccine versus averted illnesses, hospitalizations and deaths, as well as avoided medical and indirect costs. Accurate information on vaccine pricing is critical, because it is a key driver, but difficult to obtain because the final NIP price (i.e., bulk purchase contract for several years) is often not known at the time of the economic evaluation. Decision-makers are often forced to rely on the private sector price and as a result can incorrectly conclude that the vaccine is not a cost-effective intervention for their country.

Main factors influencing decisions related to the introduction of vaccines in developing countries:

1. **Proof of local disease burden**
2. **Proof of an available safe and effective vaccine**
3. **Proof of cost-effectiveness**
A key barrier to rotavirus vaccine introduction in Asia appears to be the perception that the vaccines are too expensive.

We must work to make vaccine pricing more competitive and transparent so that decision-makers will have all the information they need to make informed, evidence-based decisions. Four mechanisms exist to help countries know and secure a vaccine price and could provide models for Asia:

1. **A Bulk Purchasing Fund.** Taking advantage of economies of scale, the Pan American Health Organization’s (PAHO) Revolving Fund secures vaccines and related supplies—prequalified under WHO standards of safety and effectiveness—for its Member States in bulk, at affordable prices. By purchasing through the Revolving Fund instead of directly from producers, Latin American countries can make significant savings on the purchase price. Founded on the principle of equity, PAHO’s Revolving Fund enables all participating Member States to have access to the same products, offered at the lowest price, which is the same regardless of the country’s size or economic situation. The Revolving Fund also handles key processes like planning, demand estimates, price negotiations, purchase orders, supply coordination, shipment monitoring and billing. As a result, Latin American countries have had continuous access to safe and effective vaccines at low, stable prices for over 30 years. This assists national governments with budget planning, and fosters sustainable immunization programs. While this system requires significant work to establish, it is a model Asian countries could consider.

2. **Tiered Pricing.** Vaccine manufacturers have indicated that they are willing to enter into tiered pricing agreements with individual governments. Unfortunately, the prices agreed to by the company and individual countries are generally not in the public domain to guide decision-makers in other countries. Further, one-on-one negotiations may violate legal requirements in some countries.

3. **Separating Technical Decisions from Economic Evaluations.** In this scenario, one technical advisory committee in a country would evaluate disease burden and vaccine efficacy, and another would evaluate cost-effectiveness, working with industry on the price. Australia uses this mechanism, but in contrast to PAHO’s Revolving Fund, the vaccine price is not made public. It is also worth noting that this mechanism may be too cumbersome for smaller countries.

4. **UNICEF Hybrid Procurement Strategy.** Recently UNICEF presented a strategy for vaccine procurement for middle-income countries that would include providing industry with demand forecasts, providing countries with information on products and availability, pooling procurement and establishing reference pricing. Further exploring this strategy may be of benefit to Asia.

Decision-makers need accurate information on rotavirus vaccine pricing to evaluate and introduce these life-saving and health-improving vaccines. Each of the mechanisms outlined above have advantages and challenges, but one thing is certain: until these perceived financial barriers are addressed, Asian children won’t have the protection they need against a major threat.

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