A conversation with Kanika Bahl, Cammie Lee, Thayer Rosenberg, and Aileen Palmer February 19, 2016

Participants

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- Aileen Palmer Senior Program Associate, R4D
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Note: These notes were compiled by GiveWell and give an overview of the major points made by Ms. Bahl, Ms. Lee, Ms. Rosenberg, and Ms. Palmer.

Summary

As part of its work aiming to support potential top charities, GiveWell spoke with Kanika Bahl, Cammie Lee, Thayer Rosenberg, and Aileen Palmer of R4D about its Amoxicillin Dispersible Tablet (Amox DT) program. Conversation topics included R4D's plans, track record, and funding situation for its pneumonia program, its potential for expansion, and some of the team's work outside of pneumonia.

R4D's pneumonia program

R4D is currently targeting scaling up its pneumonia program in Tanzania (Ethiopia has more existing funding and partners). Because there is an urgent need and very few large funders have prioritized pneumonia work in Tanzania, it is particularly neglected and therefore a potentially impactful opportunity for new donors.

With adequate funding, R4D would be able to expand its Tanzania program immediately, which would include activities such as the following:

- Filling the financing gap for high-quality pneumonia treatments over 3-5 years
- Supporting training and supervision of healthcare workers to administer Amox DT (the WHO recommended treatment for childhood pneumonia. It is an oral tablet that disintegrates in a small amount of liquid, such as breast milk and/or water)
- Helping to print updated government guidelines that list amox DT as firstline treatment for pneumonia, which is crucial to ensure appropriate prescription
- Monitoring and evaluation

Facilitating the switch to Amox DT

The focus on the program would be on a) filling an immediate product funding gap to ensure children have ongoing access to pneumonia treatments b) scaling up access so that more children with suspected pneumonia receive effective antibiotics c) helping facilitate a switch from existing products to a superior formulation (DT) and d) improving the quality of treatment provided through improved training/supervision of clinical workers, recognizing this latter point tends to be a more challenging one to implement and monitor.

The conversation focused on steps to achieve a switch, item c) above. In general, steps to facilitate a switch from an older medication to a more effective medication, such as Amox DT, include:

- Government guidelines need to be amended to recommend the superior product. It is otherwise very unlikely that the product will be purchased and prescribed.
- Once government guidelines recommend the product, it must be registered with the appropriate government agency, e.g., the National Drug Regulatory Authority (NDRA) in Tanzania, the Tanzanian Food and Drug Administration (similar to the Food and Drug Administration in the U.S.). The NDRA evaluates and approves manufacturers' product dossiers as meeting quality and safety standards for distribution and use in the country. This is a less significant obstacle than adjusting government policy guidelines, because it is sometimes possible to import a product under a special waiver even before it is not registered with the NDRA.

Once the above have been accomplished, further steps include:

- Robust forecasting of the volumes of product required to meet the needs of the population.
- Getting financing allocated for procuring the product.
- Facilitating a switch in health centers' prescribing behavior (one obstacle being that, if stocks of an older product are still available, health centers may be less likely to use the new product).

Though a drug that is recommended in government guidelines will eventually be brought into the country and become available, switching to a new treatment can take considerable time because of the above factors.

Leftover co-trimoxazole

When R4D entered Ethiopia after becoming aware of a funding shortfall for Amox DT in the country, it found that significant health facility stocks of the less-effective pneumonia drug co-trimoxazole were available. (Amox fails two to five times less often than co-trimoxazole when treating pneumonia, based on most recent studies.) R4D's work in Ethiopia is therefore focused on driving a shift from co-trimoxazole at health facilities to Amox DT, and scaling up amox DT used by community health workers.

Monitoring and evaluation (M&E)

R4D plans for its M&E to focus on two sets of indicators:

1. **Qualitative**: This includes macro-level indicators of successful implementation of technical program elements, such as policy changes and getting products

registered in-country.

- 2. **Quantitative**: Drawing on past experiences and corollaries, R4D suggested several indicators preliminarily:
 - Large-scale mystery client surveys for the private sector.
 - In the public sector, public facility audits to monitor the availability of the product (e.g. whether there have been stockouts in last 30-60 days) and gather data on the percentage of pneumonia patients that receive treatment. R4D might also use data from the Demographic and Health Surveys Program (DHS), but because the quality and frequency of this information has not always been adequate, R4D is likely to rely more on facility audits.

R4D is open to a significant investment in M&E to gather better data, in part because the available data on pneumonia drugs is generally of lower quality than the data for some higher-cost products (e.g. AIDS drugs, artemisinin combination therapies). For example, data on how many children are actually receiving pneumonia treatment is currently very limited (though there are some proxy measurements that can be used). The DHS has not included measurement of antibiotic coverage rates for ARI in its data collection since 1992.

R4D would aim to first perform a baseline audit of treatment availability and the number of children receiving treatment, and would then discuss potential treatment scale-up targets.

Limited government budget

Tanzania is a very low-income country. According to latest available data from 2006, the Tanzanian government was only able to allocate about \$0.70 per citizen per year for essential medicines. Therefore, even though Amox DT treatment, which costs \$0.50 in the public sector, is intended to be "low-cost," it is high-cost relative to the Tanzanian government's limited budget.

Because of its severely limited budget, Tanzania's national procurement agency, which procures all medicine and medical supplies for the country, estimates that it is able to fulfill only a portion of health commodity procurement orders from health facilities. However, there has not been a systematic on-the-ground measurement of actual commodity needs and fulfillment.

Other potential donors

R4D believes it is unlikely to find funding for its Tanzania program apart from GiveWell and Good Ventures.

In the past, Amox DT in Tanzania has been procured through support from the Canadian government and the Reproductive, Maternal, Newborn, and Child Health (RMNCH) Trust Fund, both administered through UNICEF. The Canadian government funding came via a three year project to scale up access to Amox DT, Zinc and ORS in four countries, including Tanzania. While the project had many successes , at this time, there is no commitment to continue funding Amox DT. Meanwhile, the RMNCH Trust Fund is sunsetting in mid-2016; its country grants have been finalized and countries have already made line-item allocations for this funding, so it is unclear whether this is still a potential source of additional funding for Amox DT.

The Gates Foundation has already committed programmatic funding to R4D for the initial market-shaping work in Tanzania. It is unlikely that this will increase due to funding priorities.

Ms. Bahl's impression is that it is not uncommon for potentially cost-effective interventions (other than for particularly prominent diseases, such as AIDS, tuberculosis, malaria, and some vaccines) to be unavailable due to lack of funding.

R4D's track record

Achievements of R4D's pneumonia program include:

- Increasing transparency of pneumonia high-burden markets with Amox DT manufacturers to encourage them to submit dossiers to countries' NDRAs for review. (Lack of such registration has been a key obstacle to national procurement agencies ordering the drug). So far, at least seven high pneumonia burden countries have received and are processing Amox DT dossiers from WHO GMP-approved manufacturers.
- Supporting updates to government guidelines for healthcare providers in Ethiopia and Tanzania, and iCCM guidelines for community health workers in Ethiopia, to include Amox DT as a first-line treatment for childhood pneumonia.
- Placing its first order to buy about 400,000 Amox DT treatments for Ethiopia.
- Supported development of a national procurement plan for the Tanzanian government to use to purchase treatments if and when it has funding.
- Helping Tanzania to improve its forecasting, in line with WHO guidelines.

R4D is working closely with government and implementing partners on these matters.

Ms. Bahl's experience at CHAI

Ms. Bahl has experience doing similar programmatic work during her time at CHAI. For example, CHAI's pediatric antiretroviral therapy (ARV) program provided financing in 34 countries to facilitate a switch from a suboptimal, bulky syrup that was difficult to transport and administer to a more effective single fixed-dose combination drug. Ms. Bahl was involved in launching this program in 17 countries where CHAI had not previously had a presence. The program's target for its first year was to treat 100,000 new children, 40% of whom were in the 17 new countries.

CHAI's program helped lower the price of HIV/AIDS drugs significantly and drove significant scale-up of treatment. After a couple of years, 32 of the 34 countries where CHAI had done programmatic work had switched to the more effective treatment. Only a few other countries with Global Fund-supported programs

switched during the same time period, suggesting that CHAI's work was an important factor in countries' switching.

Potential expansion

This R4D team is relatively new (about 5 years old).

If R4D expands its pneumonia program, it would likely move into one of the other high-burden pneumonia countries in Sub-Saharan Africa or South Asia, in the next one to two years.

R4D has also considered dedicating some funding to investigating the situations in other countries, in order to identify potentially promising places for future expansion of its pneumonia program.

R4D also thinks that programmatic work, similar to what it is attempting for pneumonia, might be beneficial in the area of maternal health commodities. Oxytocin, misoprostol and magnesium sulfate play an important role in maternal health and are typically fairly inexpensive. If R4D's pneumonia programs are successful in its current countries, it may choose to prioritize expanding its programs to cover other areas of health (e.g. maternal health commodities) within those same countries, rather than expanding geographically.

Other programs

This R4D team's other work has focused on developing ways to increase access to high-quality products. The most effective ways of increasing access may differ by program. For example, R4D's pneumonia program is country-focused, because the main challenges are local and on the demand side. For other products, the main difficulties are supply side and global.

Malaria program

R4D started work in malaria and bednets about four or five years ago, when it determined there was an opportunity to lower the cost of nets. R4D produced two main recommendations to drive more cost-effective purchasing of bednets:

- Switching away from fragmented bednet procurement. When R4D began its malaria work, some less cost-effective types of nets were being purchased frequently; e.g., close to a third of nets purchased were a more-expensive oversized net type, despite there being no evidence of larger nets driving increased usage. Ms. Bahl believes this was mainly due to a lack of information at the ministries in charge of net procurement. Purchasers' switching to more cost-effective bednet specifications has likely saved over one hundred million dollars over several years.
- Considering net quality when purchasing bednets, rather than price alone (most groups in the global community had simply been buying the cheapest available nets). One major obstacle to how efficiently groups were able to buy nets was the lack of accurate information on how long different nets last in the field. R4D is still working on this issue.

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