New orientation for China's health assistance to Africa

For five decades, China has deployed doctors and built hospitals in Africa. Last week, the country's leaders signalled a shift in strategy that might have a more lasting impact. Ted Alcorn reports.

On Dec 4, Chinese President Xi Jinping revealed US$60 billion in new aid and grants to support development projects in Africa over the next 3 years. The announcement, made at the Forum on China–Africa Cooperation in Johannesburg, South Africa, continued a trend of increased Chinese assistance to the continent, albeit an amount slightly higher than expected. But many observers say the more important question is not how much the package is but how it will be spent, and if China's rise can be harnessed to improve public health in Africa in a more durable way.

The old approach

The Chinese Government has a long history of extending health diplomacy to African nations, notable particularly when China was a poor country itself. Beginning in 1963, the country sent teams of doctors, nurses, and health workers on 2-year rotations to provide clinical care in low-resource settings around the world, most of them in Africa. The programme continues today with more than 1000 staff deployed abroad at any given time, at an estimated cost of US$60 million annually.

China has also leveraged its huge capacity for construction, building or subsidising the cost of constructing more than 100 hospitals and other medical facilities across Africa since 1970. According to one study of Chinese aid projects related to health and population that were announced between 2000 and 2012, more than half targeted infrastructure.

Deborah Bräutigam, director of the China–Africa Research Initiative at Johns Hopkins University School of Advanced International Studies, Washington, DC, USA, has encountered Chinese-built facilities in Ethiopia, Zambia, and Sierra Leone. Although the buildings are often needed, she observes, they are not well integrated into the local health system. Whereas in China the state might be able to use its authority to fold new infrastructure into an existing plan, more decentralised African health systems cannot typically do so. "The Chinese don't have any way to deal with the fact that it doesn't work in Africa—most places—the way it works in China", she says.

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China's current approach to supplying personnel and infrastructure in a piecemeal way cannot substantially contribute to improving the health of Africans, says Ray Yip, former director of the China Program at the Bill & Melinda Gates Foundation. "Those all represent a substitution approach. [The Chinese] go to a hospital, they run the service for a year, and during that time people in the catchment area benefit. But when they leave, there is not much left behind. So it's not a bad thing but in terms of impact, it's relatively small. Even if they scaled up ten times, it's still going to have a limited impact."

China's response to last year's Ebola outbreak in west Africa reflected elements of this old approach, but also a heightened attention to the longer term. Just as the Chinese Government had quickly delivered aid in the wake of other humanitarian emergencies such as the tsunami that devastated southeast Asia in 2004 and the earthquake that struck Nepal earlier this year, China pledged more than $120 million to respond to the outbreak, about a third of it to build and staff a clinic in Liberia.

But even after the epidemic peaked, China remained engaged. Responding to the African Union's call for the creation of a continent-wide disease surveillance system, Chinese officials participated in an international task force to design an Africa Centres for Disease Control and Prevention (CDC). "The Chinese have been quite supportive", the Africa Union's director of social affairs Olawale Maiyegun told *The Lancet*, noting that they had contributed $2 million towards the Africa CDC's 2016 budget of $7·5 million and offered to build infrastructure associated with its first five regional collaborating centres, in addition to providing technical support.

Making drugs cheaper

One of the most basic obstacles to improved health and wellbeing in Africa is the high cost of basic drugs and medical supplies, which burdens health systems and limits access for the poorest patients. Some

For more on the **China–Africa Forum** see http://www.focac2015jhb.com/

For more on **China's engagement in global health** see **Review** *Lancet* 2014; **384:** 793–804

For the **study of Chinese aid projects related to health and population** see http://www.globalizationandhealth.com/content/10/1/84

For more on **China's Africa policy paper** see http://news.xinhuanet.com/english/2015-12/04/c_134886545.htm

For the **report by McKinsey & Company** see http://www.mckinsey.com/insights/health_systems_and_services/africa_a_continent_of_opportunity_for_pharma_and_patients

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Chinese President Xi Jinping at the Forum on China–Africa Cooperation, South Africa

Yannick Tylle/Corbis

Drug manufacturing plant, Kampala, Uganda

development specialists argue that the Chinese Government has an opportunity to make a longer-lasting contribution to this area. Employing an array of financial instruments, the Chinese Government has spurred joint ventures and technology transfers to other sectors of African economies, and a policy paper released at the China–Africa Forum indicated that the country would "encourage Chinese pharmaceutical enterprises to invest in Africa in a bid to lower the cost of medicines".

Currently on the continent, there is little or no local manufacturing of drugs and basic medical supplies says Lauren Galinsky, global planning manager for supply chains for the non-governmental organisation Partners In Health. They work with governments in five African countries, but Galinsky says, "I can't think of a significant purchase that we make in terms of medical devices or even basic supplies in-country. It's almost always less expensive [...] to be importing things from China or India or a variety of other places".

For firms thinking in the medium term, Africa holds promise. The continent's demand for pharmaceuticals is growing faster than almost anywhere else in the world. According to a report by McKinsey & Company, between 2010 and 2020, Africa's drug market will expand at five times the rate of the US market and ten times that of Japan, achieving a size of $40–65 billion by the end of the decade.

The barriers to entry are equally substantial. The continent is composed of 54 sovereign countries with varied regulatory policies to navigate. There is a dearth of high-skilled labour and basic infrastructure, including reliable energy supplies necessary for producing sophisticated goods. The share of employment accounted for by the manufacturing sector overall has actually been declining across much of the region.

But there are several reasons why the Chinese Government could be poised to promote joint ventures with African companies and change this dynamic where other parties have not. One is that Chinese firms can capitalise on vertical integration with suppliers of active pharmaceutical ingredients in their home country. Prashant Yadav, senior fellow at the University of Michigan's William Davidson Institute, USA, says that small African manufacturers often struggle to pay up front for their supplies, sometimes as much as 6 months of future revenue. "Now, with new partnerships being created, as far as I understand, there are commitments to supply active ingredients from Chinese companies on more favourable credit terms and at the best local prices possible. And if that happens they are now playing in a competitive landscape."

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Yadav says it might be 10 years before the market is sizeable enough to attract American and European companies, but Chinese investors take a longer view. "It is a market-entry strategy", he says. "They have an interest getting a foothold in the growing market."

Guilin Pharmaceutical based in Guangxi could ultimately be one of the leaders. In China, Guilin manufactures a variety of drugs including injectable formulations of the malaria drug artesunate, but it has established subsidiaries in Ghana, Nigeria, and Côte d'Ivoire and regional offices in five other African countries. For now, the subsidiaries distribute or promote imported drugs rather than manufacturing them. But vice-president Lily Su says the company has ambitions to invest in local production of basic drugs, possibly antibiotics and other essential medicines or solutions that are otherwise expensive to transport. "We did some investigation in Nigeria and also in Tanzania, and even now we are trying to collect some information in Côte d'Ivoire", she says, emphasising the importance of an industrial park where critical infrastructure like a stable power supply are guaranteed. "But for us, the most important thing is that we also rely on [...] the local partner, who knows better than us about the business there."

This underscores how African states and institutions will ultimately play an essential part in any future developments. Ren Minghui, director-general for international cooperation, Chinese Ministry of Health, is hopeful that the African Union will institute reforms to clarify pharmaceutical regulations in subregions of the continent and reduce barriers to entry for the private sector. "I think there will be some changes in African countries and hopefully those changes can steer more interest from the Chinese pharmaceutical industry to be more engaged and more interested in African countries."

Ted Alcorn