



## Public Health in Chad: Connecting Spending and Results

*A public expenditure tracking study shows that when public funds reach health centers, they make a positive difference in people's access to health care*

An expenditure tracking study carried out in Chad in 2004 finds that the majority of non-wage funds from the central budget never reach local health clinics. The cost of capture and leakage falls heaviest on the poor, who may not be able to get treatment or pay for the higher price mark-ups on drugs in the health centers that do not receive public resources. The evidence from a second survey suggests that income inequalities also translate into health service inequalities, which further reduces access to basic health services by the poor.<sup>1</sup>

Chad is one of the poorest countries in Sub-Saharan Africa, ranking 100th out of 103 countries on the Human Poverty Index. Its health indicators are among the worst—average life expectancy at birth is 43 years. Despite an increase of 24 percent in the government budget for health in 2003 and significant increases in resources allocated to health in the past decade, the incidence of malaria, diarrhea, respiratory infections, parasites, meningitis, and cholera remains high and social indicators remain stagnant. Where is this money going?

### Leakage is crippling the public health delivery system

The study showed that health centers, which are the frontline providers and the entry point for much of the population, receive less than 1 percent of the Ministry of Health's non-wage recurrent expenditures set aside for their use. These figures were obtained by combining a bottom-up analysis of data gathered from 281 primary health centers and 20 hospitals and a top-down analysis of the share of public expenditures making its way through the four levels of the health system (the central ministry which formulates national health policy, regional health delegations responsible for coordinating and implementing the strategy at the regional level, sanitary districts headed by a chief doctor with at least one hospital, and a network of health centers).<sup>2</sup> The study showed a direct relationship between leakage and an increase in out-of-pocket expenses by users.

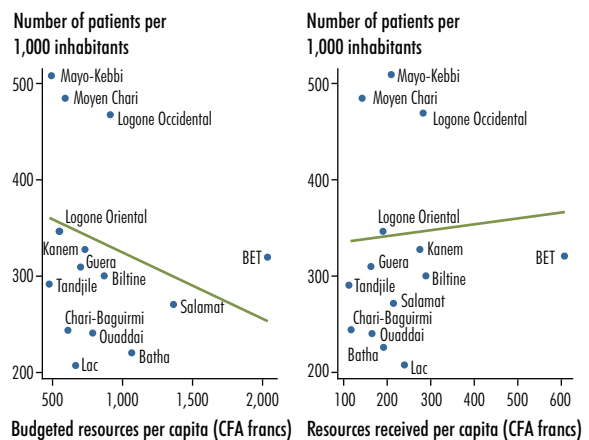
### Leakage increases the price health centers charge patients for drugs

Health centers that do not receive public support tend to charge significantly higher mark-ups on medications than centers that receive public resources. The higher prices for medication sold to patients by health centers constitute a major barrier to treatment. Out-of-pocket spending for drugs can often exceed 70–80 percent of the cost of a visit.

### The number of patients treated could have doubled without leakage

The negative relationship between spending and health output at the regional level is reversed if public funds reach the clinics. The figure on the left shows a paradoxically negative association between public resources in health and performance while the figure on the right shows this result does not hold once leakage is taken into account. When expenditures actually reach health centers they have a positive and significant impact on the number of patients treated.

#### Public expenditure and health system performance: Budgeted resources, and resources received, at the regional level



Source: Gauthier and Wane (2008).

## Income inequalities also translate into health service inequalities

Poor people care about the quality of the treatment and care they receive from health facilities. One piece of evidence for this is that people bypass the nearest health center in favor of one that is farther away if it is deemed better. Additional data collected from 1,200 health care employees and 1,801 patients looked at a patient's knowledge of existing alternative providers in their neighborhood and where they seek medical care.<sup>3</sup>

Evidence shows, however, that affordability trumps quality for poor people. Richer people bypass nearer low-quality public providers to visit private providers whereas poorer individuals bypass nearer private providers they cannot afford to seek care in a lower quality public health center.

Bypassing behavior is primarily an urban phenomenon. More than 60 percent of patients in the capital city have bypassed at least one health facility versus 28 percent of patients in rural areas.

This bypassing behavior reflects the larger number of service providers available in urban areas and suggests a mismatch in the allocation of public health resources between urban and rural areas. Rural facilities are often overcrowded despite their low quality, while urban public facilities, generally bypassed by the wealthy in favor of private and faith-based providers, attract few clients. Ultimately, careful monitoring of public funds is needed to ensure that additional public resources reach rural facilities and the underserved poor.

## The down and outward flow of resources can be enhanced at many levels

The two studies suggest that the addition of a few policy mechanisms would greatly improve the transfer of public funds. A set of clear allocation rules at the ministry level about materials and medications to regions and districts would reduce the discretionary capture by regional and district administrators. Better record-

keeping on resources received by health centers from higher administrative levels and how the money is spent would contribute to transparency and accountability by public officials. Providing the public with access to information on transfers can also be useful in efforts to reduce capture and leakage of public funds for health as well as other social sectors, as it did in Uganda, where a public information campaign reduced the capture of school grants from 80 percent in 1995 to less than 20 percent in 2001.<sup>4</sup>

Waly Wane, Economist  
wwane@worldbank.org

## Notes

- <sup>1</sup> The survey, designed and organized by the author, examined various levels of the health sector, collecting the most complete information possible on resource use, delivery processes, health outputs, and pricing behavior.
- <sup>2</sup> Bernard Gauthier and Waly Wane. Forthcoming. "Leakage of Public Resources in the Health Sector: An Empirical Investigation of Chad." *Journal of African Economies*. (Based on World Bank Policy Research Working Paper 4351, September 2007).
- <sup>3</sup> Bernard Gauthier and Waly Wane. 2008. "Bypassing Health Providers: The Quest for Better Price and Quality of Health Care in Chad." World Bank Policy Research Working Paper 4462, January.
- <sup>4</sup> Ritva S. Reinikka and Jakob Svensson. 2004. "The Power of Information: Evidence from A Newspaper Campaign to Reduce Capture." World Bank Policy Research Working Paper 3239, March.

## Further Reading

- Ritva S. Reinikka and Jakob Svensson. 2004. "Local Capture: Evidence from a Central Government Transfer Program in Uganda." *Quarterly Journal of Economics* 119(2): 679–705.
- Deon Filmer, Jeffrey S. Hammer, and Lant H. Pritchett. 2000. "Weak Links in the Chain: A Diagnosis of Health Policy in Poor Countries." *World Bank Research Observer* 15(2): 199–224.