'Marginal Budgeting for Bottlenecks'

'Marginal Budgeting for Bottlenecks' is a result-based planning and budgeting tool that utilizes knowledge about the impact of interventions on child and maternal mortality in a country, identifies implementation constraints and estimates the marginal costs of overcoming these constraints. This tool, which has been employed in the preparation of key strategic frameworks for maternal, newborn and child health in sub-Saharan Africa, was jointly developed by UNICEF, the World Bank and WHO. It is being used to assist in setting targets for proven high-impact interventions, and the estimation of their expected impact, cost per life saved and additional funding requirements, as well as a projection of the required fiscal space to finance these extra costs. (Fiscal space can be defined as the availability of budgetary room that allows a government to provide resources for a desired purpose, e.g., overcoming barriers to maternal, newborn and child health care without any prejudice to the sustainability of a government's financial position.)

Marginal Budgeting for Bottlenecks consists of five key steps:

- *An assessment of the key indicators, trends in and cause of maternal, newborn and child mortality and morbidity and access to essential services, and the selection and packaging of evidence-based, high-impact interventions* to address the proximate causes by service delivery mode, i.e., family/community-based care, schedulable population-oriented services and mobile strategies, or individually oriented clinical care at primary- and referral-level facilities.
- *Identification of system-wide supply and demand bottlenecks to adequate and effective coverage of essential primary-health-care services,* and obstacles to the application of high-impact intervention packages in each of the main service delivery modes. Adequate coverage includes such factors as the availability of essential drugs and supplies, access to health services and health workers, initial utilization of health-care services and continuity of usage of service. Subsequent examination of underlying causes of bottlenecks and the development of promising strategies to overcome them allows for the setting of 'frontiers' – coverage levels of intervention packages that are adequate, effective and achievable once bottlenecks are removed.
- *Estimation of the expected impact on survival rates for each of the interventions.* These estimations are based on recent, in-depth analysis of the evidence on the efficacy of high-impact interventions and packages in determining maternal and child survival and health outcomes. They are calculated in a residual way to avoid double counting survival rates.
- *Selection of the types, quantities and costs of additional inputs,* such as salaries, drugs and training, which are needed to implement the actions to overcome bottlenecks and to lift the effective coverage of intervention packages to their frontiers.
- *Analysis of budgetary implications, the identification of likely sources of funding and the comparison of the marginal costs and additional funding needs to the 'fiscal space' for health spending.* (The fiscal space for health spending in each country is projected by the World Bank and the International Monetary Fund.)

Country examples of bottleneck analysis

Bottleneck analysis has been undertaken in around 25 developing countries and across the range of service delivery modes. Proxies used to assess the coverage determinants for each of the three modes of service delivery include the following parameters (the list is not exhaustive):

- *Family and community care:* Indicators include use of safe water and sanitation facilities, and of insecticide-treated mosquito nets; infant feeding and care for sick children and newborns.
- *Population-oriented schedulable services:* Indicators include levels of immunization and antenatal care.
- *Clinical care:* Indicators include skilled attendance at birth and emergency obstetric and neonatal care.

Results from countries where the tool has been used have revealed bottlenecks that were not immediately evident from the examination of levels or trend data.

As reported at recent workshops:

Honduras: A bottleneck analysis of water, sanitation and hygiene services revealed that despite ample access to improved drinking water, less than half of households consumed water that had been treated to make it safe. Strategies selected to address these bottlenecks include scaling up water treatment and providing information, education and communication initiatives to promote the exclusive use of safe drinking water.

Guinea: In 2000, 70 per cent of villages in the districts where the Accelerated Child Survival and Development (ACSD) programme was under way had a community health and nutrition promoter, 50 per cent of families owned a mosquito net, and 25 per cent of pregnant women slept under a net. However, effective coverage was found to be far lower than adequate coverage levels, since less than 5 per cent of individuals slept under a mosquito net that had been recently treated with insecticide. This bottleneck to protection against malaria was addressed through the free treatment of all existing mosquito nets with insecticide, combined with a heavily subsidized distribution of insecticide-treated mosquito nets that focused on pregnant women who were utilizing antenatal care and had completely immunized their children. By 2004, this integrated approach to removing bottlenecks had increased the effective coverage of insecticide-treated mosquito nets by 40 per cent, while also increasing the effective coverage of immunization (full course for children under five) and antenatal care (at least three visits) from 40 per cent in 2002 to 70 per cent two years later.

See References, page 108.