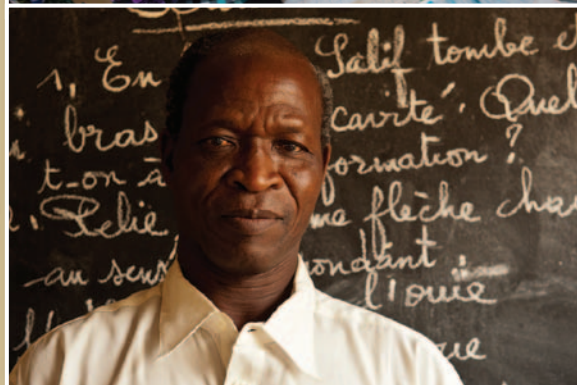


# SERVICE DELIVERY INDICATORS

Education | Health

*A bold Africa-wide initiative ...  
that tracks performance  
and quality of service delivery  
in primary schools and  
at frontline health facilities  
across countries and  
over time.*



**Service Delivery data fill an important gap by objectively measuring service provider performance at the frontline in schools and clinics.**





# Why Service Delivery Indicators

**Addressing the unfinished quality agenda.** Access to schools and clinics has increased in many African countries, but many children who leave school are unable to read and do basic arithmetic, and the quality of care in clinics remains uneven. Increased spending and expansion in access to education and health services have not been matched with commensurate improvements in human development outcomes, suggesting an unfinished quality agenda.

**Quality is critically dependent on what service providers know and what they do.** Inspired by the World Bank's 2004 World Development Report *Making Services Work for Poor People*, we know that a key characteristic that distinguishes education and health services is that these services are determined by provider behavior; they are discretionary and transaction-intensive, complicating how relationships of accountability for education and health services are structured.

**Accountability for public resources.** Developing country governments allocate roughly a third of budgets to education and health. Demands for accountability for the efficient use of public resources—from citizens and tax payers in developed or developing countries alike—are gaining in prominence, partly because of the global economic situation.

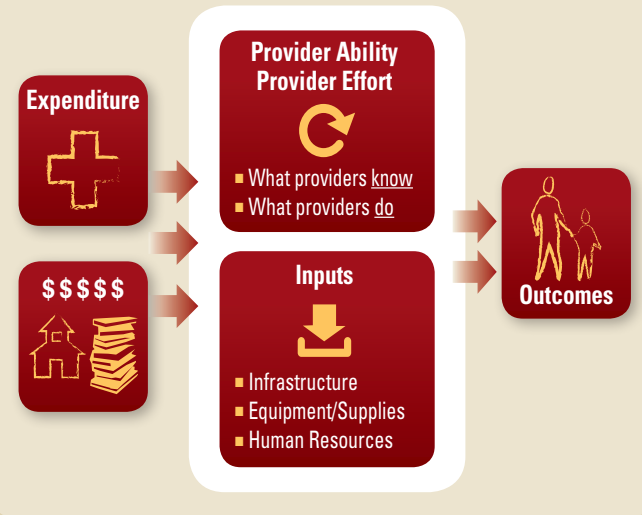
**What you don't measure you can't hold service providers accountable for.**

Without consistent and accurate information on the quality of services, it is difficult for citizens or politicians to assess how service providers are performing, to work towards corrective action, and ultimately bring about improvements in service delivery. There is little robust and representative evidence of what teachers and health workers do during a typical work-day, their levels of ability, knowledge and skills, how teachers perform their teaching activities and how well health workers diagnose and treat their patients.

**What is wrong with the data we have?** Some of the weaknesses in the data that are currently available are:

- Lack of consistent and credible data on the links between expenditure and human development outcomes.

## Service Delivery Data to improve Value for Money



- Lack of standardized data to compare performance across national or sub-national boundaries or over time.
- Service delivery data are often of weak quality. Administrative data are routinely collected (e.g., from health and education management information systems), but the data quality is highly variable.
- Data on quality and service delivery performance is not best collected through self-administered management information systems.

*“A project of this nature – using data, or the ‘power of numbers’ to improve incentives and accountability is arguably one of the most important initiatives ... when political economy is at the heart of development failures.”*

# What are the Service Delivery Indicators

Teachers and health workers are a country's greatest asset in delivering education and health services. What they know, what they do, and the inputs they have to work with all determine the quality of services they provide. Service Delivery Indicators measure precisely these three dimensions.

## Provider Ability



### Teachers

- Minimum knowledge to master the curriculum
- Quality of instruction

### Health workers

- Diagnostic accuracy
- Adherence to clinical guidelines
- Management of maternal/neonatal complications

## Provider Effort



### Teachers

- Absence from school
- Absence from classroom
- Time spent teaching

### Health workers

- Absence from facility
- Caseload per provider

## Availability of Key Inputs



### Schools

- Teaching equipment availability
- Student-teacher ratio
- Students per textbook
- Infrastructure availability

### Health facilities

- Equipment availability
- Drug availability
- Infrastructure availability

*Source: African Economic Research Consortium/World Bank. 2011. Service Delivery Indicators: Pilot in Education and Health Care in Africa. Piloted by the African Economic Research Consortium with support from The William and Flora Hewlett Foundation and The World Bank. Additional explanatory data will be collected yielding a rich and complete dataset available for rigorous econometric analysis.*

# More than just a data project

These factors led to the conceptualization of an Africa-wide initiative that tracks service delivery in education and health, the *Service Delivery Indicators Project*. This is a partnership of the World Bank, the African Development Bank and the African Economic Research Consortium.

**More than just a data project.** The initiative will invest in developing a far-reaching and creative communication and dissemination strategy with an emphasis on supporting the domestic accountability cycle. To this end, old and new media, alongside the more traditional reporting products will be employed to target not only policymakers, but also groups that are critical to the national accountability process such as parliamentarians, grass roots CSOs and NGOs, and citizens.

The **objectives** cover three main areas:

- **Collecting Information:** Collect robust evidence on results and the quality of education and health services over time and across countries.
- **Capacity Building and Institutionalization:** Strengthen the capacity of institutions (especially think tanks) in Africa to collect evidence and use the data to inform countries' own development debates.

- **Launch of SDI Country Results:** The highly visible launch will include the release of the SDI Country Report and SDI data; online moderation of the live-streamed event; blog posts by commentators on the implications of the country findings; Op Eds placed in relevant print media, etc.
- **Training Courses in SDI Analysis:** Basic and advanced training courses will be conducted by AERC, targeting analysts and researchers from government agencies, think tanks, and non-governmental organizations to build their analytical skills in the use of SDI data to address policy-relevant issues. Training can also be customized for special audiences, for example “data boot-camps” targeting analysts in media houses.
- **High-level Policy Seminars:** This Policy Seminar, convened by AERC in each SDI country, will have a multi-country focus, targeting policy-makers, parliamentarians and key stakeholders. It will focus on SDI analysis and related research on topics such as effectiveness of public spending, accountability for service delivery, etc.



# How the Initiative will be Implemented

- The World Bank is the implementing agency for the first half of this ten-year initiative. The bulk of the initiative will be implemented at the country level, with support and capacity building from the SDI team.
- Each country will have a human development economist and a communications consultant, both typically field-based. They will liaise with country partners such as government agencies, think tanks, and advocacy organizations. They will lead survey implementation, dissemination and policy dialogue at the country level.
- A highly skilled Technical Panel from education and research institutions in Africa and elsewhere who are at the cutting edge of service delivery research. Their focus is especially on quality and technical integrity of the SDI surveys and analysis.
- A Steering Committee with broad representation from various stakeholders will provide advice and guidance for the execution of the initiative.

## Steering Committee



**Ritva Reinikka**  
World Bank



**Mwangi S. Kimenyi**  
Brookings Institution  
(Africa Growth Initiative)



**Jakob Svensson**  
Stockholm Univ.  
Inst. for International  
Economic Studies



**Lemma W. Senbet**  
African Economic  
Research Consortium



**Ruth Levine**  
Hewlett Foundation



**Leonard Wantchekon**  
Princeton Univ. (Institute  
for Empirical Research in  
Political Economy)



**Nathalie Delapalme**  
Mo Ibrahim Foundation



**Ory Okolloh**  
Omidyar Network



**Shantayanan  
Devarajan**  
World Bank



**Mthuli Ncube**  
African Development Bank



**Agnes Soucat**  
African Development Bank

Country Implementation Timeline	Month					
	1	2	3	4	5	6
<b>Adaptation of instrument</b>	█					
<b>Sampling</b>	█					
<b>Permissions</b>	█					
<b>Contracting and Recruitment</b>	█	█				
<b>Training and Fieldwork</b>		█	█	█		
<b>Data Cleaning &amp; Analysis</b>			█	█	█	
<b>Country Report &amp; Dissemination</b>					█	█

# Where we're measuring



**Kenya:** For every 100 teachers, only 55 are in class teaching. Private school teachers are a third less likely to be absent from class and spend 50% more time in class teaching. Private schools do better on measures of teacher effort, but not on measures of teacher ability.



**Senegal:** 29% of teachers had minimum language competence at the level they are required to teach. A fifth of healthcare workers (20%) and teachers (18%) were absent on a given day.



**Tanzania:** Urban teachers spent 1.4 hrs a day teaching out of a scheduled 5.2 hours. A third of clinicians could correctly diagnose highly prevalent and potentially deadly conditions such as malaria.

- – SDI completed
- – SDI ongoing
- – SDI being considered

## Country Selection Criteria

Some of the criteria that will be considered are:

- The existence of local institutions capable of implementing the survey with sufficiently high quality.
- Contextual factors that influence the likely impact of the project at the country level such as demand from government and civil society; the likelihood of successful practical execution of the SDI survey; and strategic considerations (e.g. populous countries, middle income countries such as Nigeria, Democratic Republic of Congo, South Africa).
- The significance of the country as a relevant comparison to other countries (taking into account factors such as country size, level of development, political stability, governance structure, post-conflict situation, etc.).
- Geographical location (East, West, Central and South) to ensure the pan-African vision of the project.
- SDI is being implemented in Anglophone, Francophone, and Lusophone countries.



# A Partnership Initiative

The initiative started as a partnership initiative among the World Bank, the African Economic Research Consortium (AERC) and the William and Flora Hewlett Foundation, and subsequently

the African Development Bank (AfDB) joined the partnership. It brings together development economists, sectoral specialists and aims to reposition the dialogue on human development in

Africa within the context of effectiveness of public spending, and accountability for service delivery.

## African Economic Research Consortium

The AERC is a consortium whose memberships spans think tanks across more than 30 African countries. With its niche of providing an evidence base for policy-making in Africa, AERC's principal objective is to strengthen local capacity for conducting independent rigorous inquiry into problems pertinent to management of economies in sub-Saharan Africa. Given its technical experience and strong institutional track record, as a collaborative partner on ground and the key interlocutor between the respective beneficiary African countries' policy-makers and think tanks, as well as with other SDI data users, AERC is uniquely equipped to be an SDI partner.

## Resources available from the SDI Team

In addition to **quality assurance** by a skilled SDI team and credible technical panel of experts . . .

- **Tools** for survey planning and analysis.
- **Templates** for rapid adaptation survey instruments (including translated in French and Portuguese), field manuals, sampling strategies, training materials.
- **Technology** for mobile data collection, and innovative use of ICT for wide-reaching and influential communication.
- **Outreach package** for wide-reaching dissemination and communications strategy with innovative use of old and new media.

*SDI “has (relatively) less to do with giving policymakers technocratic advice on how to improve services, and more to do with changing the incentive environment within which policies are implemented.”*

*Peer Reviewer, Concept Note Review, November 2011*



# More on the **Methodology**



## **What are the analytical underpinnings of SDI?**

The Service Delivery Indicators takes as its starting point the literature on how to boost education and health outcomes in developing countries. While resources alone appear to have a limited impact on the quality of education and health in developing countries, it is possible that inputs are complementary to changes in incentives and so coupling improvements in both may have large and significant impacts.<sup>1</sup> The fact that budgets have not kept pace with enrollment, leading to large student-teacher ratios, overstretched physical infrastructure, and insufficient number of textbooks, etc., is problematic.<sup>2</sup> However, simply increasing the level of resources might not address the quality deficit in education and health without also taking providers' incentives into account.<sup>3</sup> A production function for service delivery is a key theoretical underpinning of the service delivery indicators. Service delivery is thought of as a function of key inputs, service provider ability and service provider effort. Service delivery outcomes are determined by the relationships of accountability between policymakers,

service providers, and citizens. In turn, health and education outcomes are the result of the interaction between various actors in the multi-step service delivery system, and depend on the characteristics and behavior of individuals and households.

## **How were the indicators chosen?**

SDI proposes three types of indicators: (i) provider competence and knowledge; (ii) proxies for effort, broadly defined; and (iii) availability of key infrastructure and inputs.<sup>4</sup> In addition, we wanted to select indicators that are (i) quantitative (to avoid problems of perception biases that limit both cross-country and longitudinal comparisons)<sup>5</sup>; (ii) ordinal in nature (to allow within and cross-country comparisons); (iii) robust (in the sense that the methodology used to construct the indicators can be verified and replicated); (iv) actionable; and (v) cost effective.

## **How does SDI link with other surveys?**

■ **Education.** The *Southern and Eastern African Consortium for Monitoring Educational Quality* (SACMEQ) and the Program for the Analysis of Education Systems (PASEC) are standardized surveys that focus primarily on education outcomes. The World Bank's *System Assessment and Benchmarking for Education Results* (SABER) initiative focuses mainly on the policy and institutional environment. The focus of the SDI is on quality, and is highly complementary with these instruments by linking inputs, policy and institutional environment factors on the one hand, and education outcomes on the other.

■ **Health.** The *Service Availability and Readiness Assessments* and the *Service Provision Assessment Surveys* are health facility surveys which offer comprehensive and detailed assessments of all services offered at health facilities, and usually take more than a year to generate results. By design, SDI offers a nimble survey instrument that can be repeated at lower cost and with greater frequency. Further, by focusing on performance and quality, SDI surveys are highly complementary to these that focus on availability and service readiness.

## **Why are no qualitative data collected by SDI surveys?**

SDI focuses on quantitative facility-based data. That said, information is collected on many institutional factors that help one understand and interpret the results of the indicators—i.e., SDI surveys not only collect the data for the 5-6 indicators per sector, but also collect other contextual information to correctly interpret the indicators and for more detailed analysis beyond the indicators.

## **Why does SDI have an exclusive supply-side focus?**

There are currently standardized sources of household surveys (e.g., Demographic and Health Surveys, Living Standards Measurement Surveys) but there are no standardized facility surveys that are repeated with predictable frequency. This is the gap in the data landscape that SDI aims to fill. While the information is collected on the supply-side, the intention is to inform demand-side action for accountability and results—by consumers such as parents, by policy analysts such as think-tanks, and by policy-makers such as parliamentarians.

### ***What is SDI doing to build capacity to better use the data?***

The SDI partners are committed to make anonymized raw SDI data available. But it cannot be automatically assumed that everyone will be able to access and use the data. One of the SDI partners, the African Economic Research Consortium (AERC) will implement in each SDI country two types of training workshops: one for basic analysis targeting young researchers, and a second shorter more compact module for advanced analysts/researchers.

### ***Do the SDI surveys not undermine the investment made in health and education management information systems?***

Over the past few decades we have seen vast investments in health management information systems. When information is used track performance or quality, self-reported data from management information systems often lack credibility and methodological rigor. On this basis we contend that not all types of data should be collected in management information systems, and we view SDI-type data as complementary information source to track results.

### ***Which are the 15-20 SDI countries, how were they decided, and what are the minimum requirements to participate as an SDI country?***

All the SDI countries have not been pre-selected. The main requirement is country demand, the commitment to making the findings available within about 3 months of data collection, and data transparency, i.e., to make the data available for primary analysis (with the necessary ethical protections such as anonymization). Finally, the survey should be implemented in both the education and health sectors.

### ***Are private sector providers included in SDI surveys?***

SDI covers both public and private sectors. In the education surveys both non-profit private sector providers—mainly Faith Based Organizations (FBOs)—as well as low-cost for-profit providers have been included. In the health surveys only non-profit private providers (mainly FBOs) have been included. Some aspects of the survey instrument need to be adjusted for private health providers, as the conclusions and policy implications may be quite different. For example, drug stock-outs or absenteeism at a private practitioner's office may be quite different. But the assessment of clinical competence modules is of great relevance also to the private health sector.

### ***Why not include other services and health and education?***

The quality of services such as water and sanitation must typically be measured through a household survey. This differs from the facility-based approach of the SDI surveys. Surveys on water and sanitation are probably better administered independently of the SDI surveys.

### ***How representative are SDI surveys?***

The sampling strategy aims to generate nationally representative data disaggregated by rural/urban locations and provider type. To maximize the utility to the in-country dialogue, the stratification or/and or selective oversampling of certain geographic locations will be adapted to country-level needs.

### ***How sure are we that the appropriate sample size is 200-300 units per sector?***

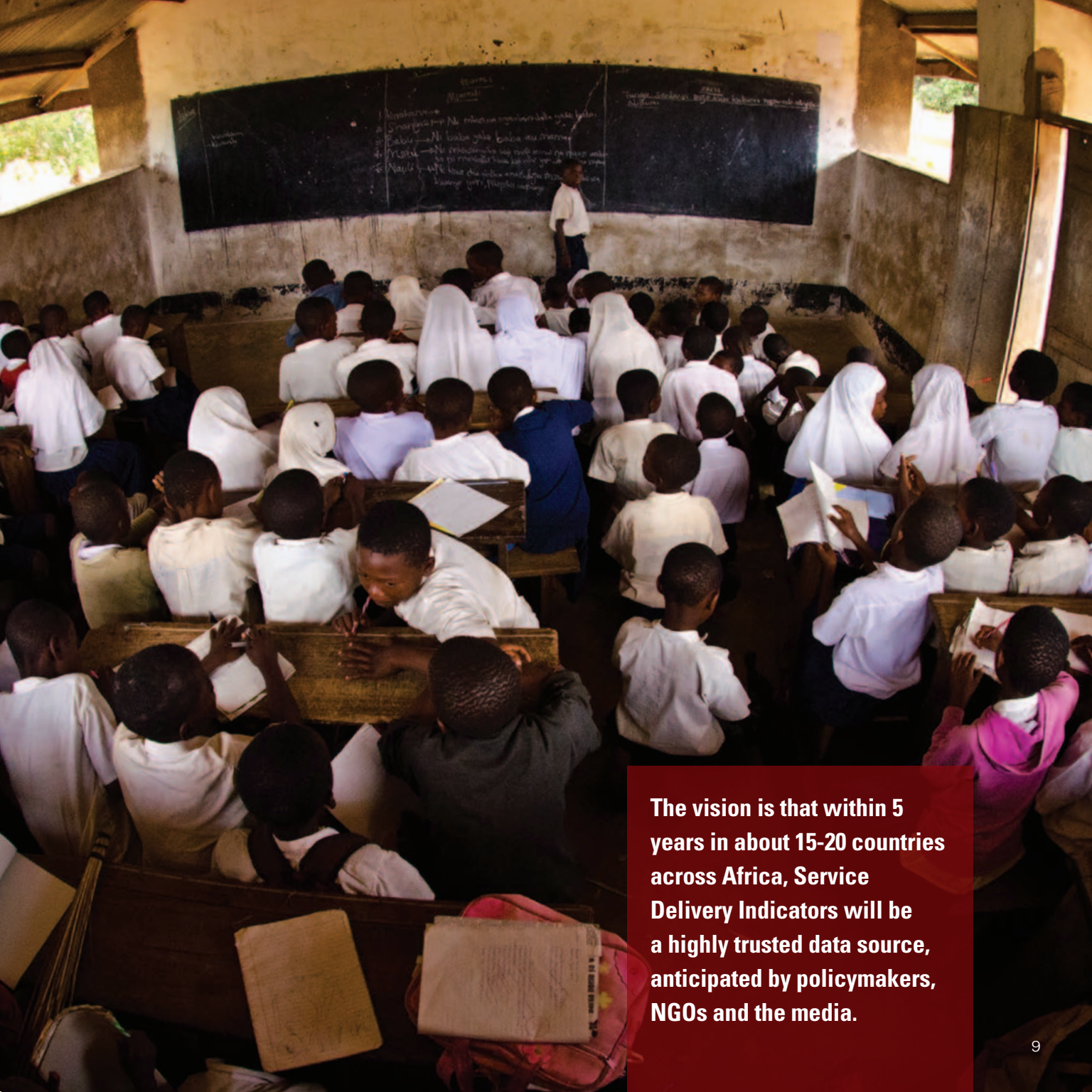
The pilots in Tanzania and Senegal showed that the precision of the estimates of the indicators depends a lot on the efficiency of the stratification process. It also depends

on how some of the variables are measured (whether a dichotomous or a continuous variable). The most critical variable for the sample size is the level of precision that we require in our estimates. Experience has shown that 200-300 facilities per sector are enough to meet these needs.

### ***Why is there not a management or leadership indicator?***

Management can be seen as a primary input because organization of the inputs is crucial for efficient service production. If a good indicator of this aspect can be identified, it can be included among the indicators. So far, we have not identified this indicator. Leadership is clearly an important factor explaining quality of services, but again, a simple and telling indicator is hard to identify. We suggest however that various proxy indicators are collected as part of the underlying data.

- 1 See Hanushek, 2007.
- 2 As noted by Duflo, Dupas, and Kremer (2009).
- 3 For an overview, see Hanushek (2003). Case and Deaton (1999) show, using a natural experiment in South Africa, that increases in school resources (as measured by the student-teacher ratio) raises academic achievement among black students. Duflo (2001) finds that a school construction policy in Indonesia was effective in increasing the quantity of education. Banerjee et al (2000) find, using a randomized evaluation in India, that provision of additional teachers in nonformal education centers increases school participation of girls. However, a series of randomized evaluations in Kenya indicate that the only effect of textbooks on outcomes was among the better students (Glewwe and Kremer, 2006; Glewwe, Kremer and Moulin, 2002). More recent evidence from natural experiments and randomized evaluations also indicate some potential positive effect of school resources on outcomes, but not uniformly positive (Duflo 2001; Glewwe and Kremer 2006).
- 4 The suggested indicators for education and health are partly based on an initial list of 50 PETS and QSDS indicators devised part of the project "Harmonization of Public Expenditure Tracking Surveys (PETS) and Quantitative Service delivery Surveys (QSDS) at the World Bank" (Gauthier, 2008). That initial list, which covers a wide range of variables characterizing public expenditure and service delivery, was streamlined using this project's criteria and conceptual framework.
- 5 See for instance Olken (2009).



**The vision is that within 5 years in about 15-20 countries across Africa, Service Delivery Indicators will be a highly trusted data source, anticipated by policymakers, NGOs and the media.**





# SERVICE DELIVERY INDICATORS

Education | Health

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## FOR MORE INFORMATION



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