



DECENTRALISATION &  
LOCAL GOVERNANCE



# Localizing Public Services and Development: The Local Public Sector's Role in Achieving Development Goals in Health and Education



Prepared by DeLoG & the LPSI Secretariat - The Urban Institute  
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## **FINAL REPORT**

# **LOCALIZING PUBLIC SERVICES AND DEVELOPMENT: THE LOCAL PUBLIC SECTOR'S ROLE IN ACHIEVING DEVELOPMENT GOALS IN HEALTH AND EDUCATION**

This report was prepared by Jamie Boex and Benjamin Edwards (The Urban Institute Center on International Development and Governance, Washington DC 20037) in December 2014 on behalf of the Development Partners Working Group on Decentralisation & Local Governance (DeLoG) and the Urban Institute with support from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), funded by the German Federal Ministry of Economic Cooperation and Development (BMZ) and Swiss Development Cooperation (SDC) .

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# **LOCALIZING PUBLIC SERVICES AND DEVELOPMENT: THE LOCAL PUBLIC SECTOR'S ROLE IN ACHIEVING DEVELOPMENT GOALS IN HEALTH AND EDUCATION**

## **EXECUTIVE SUMMARY**

As the 2015 deadline for achieving the Millennium Development Goals approaches, the global development community has engaged in significant debate about the scope, details and implementation of new, post-2015 sustainable development goals. In recognition of the fact that implementation of key pro-poor development efforts takes place at the local level, one of the thematic elements of this discussion has been the “localization” of development in the post-2015 agenda. This study is meant to inform the discussion on the role of the local public sector in achieving development goals, with an emphasis on health and education.

While strong arguments can be made that improved local governance and decentralization will contribute to more efficient public services and greater economic growth, this view is not universally shared within the development community. In fact, the academic research on the role of the local public sector has been unable to confirm to what extent (or under what conditions) a greater degree of decentralization results in better development outcomes. In order to fill this void in the state of knowledge, the current study engages in an empirical stock-taking exercise—based on data from 29 developing and transition countries—to assess the contribution of local governments, and the local public sector more broadly, to achieving the global development goals.

The study seeks to answer several key research questions: how big is the local public sector in different countries, and what is the composition of local public sector expenditures in health and education? In their pursuit of the MDGs, to what extent have development partners and donor agencies relied on the local public sector in order to improve MDG-relevant public services? Have public sector resources (and when possible, development resources) for MDG-relevant services remained stuck at the central government level? What does the data set suggest about the relationship between local public sector spending and sectoral development outcomes? What is the potential for improving specific sector development outcomes (in education and health) if more funds are channeled through the local public sector?

In seeking to answer these questions, this study introduces an important new approach to understanding the decentralization and localization of service provision. Much of the existing analysis of the local public sector and local public sector finances has focused on the expenditures and revenues of devolved (elected) state and local governments. This approach is incomplete, as it does not take into account all expenditures made at the local level. For the purposes of this research, our measures of the local public sector include not only the activities and spending of these devolved state and local governments, but also encompasses the activities of any deconcentrated administrative bodies below the central level, as well as spending by central government line ministries (or other central government agencies) that support the front-line delivery of public services in a direct and localized manner. The inclusion of these latter types of localized spending, and the general perspective that local service delivery is a multi-level government process, allows this study both to capture localized resources that

have not been analyzed to date, and to make direct comparisons between countries with devolved systems of governance and those with deconcentrated systems, which are often overlooked by studies which focus more narrowly on municipal or devolved finances.

In fact, until very recently, no comparative information or data were available at all on the size of non-devolved local public sector expenditures in different countries, or on the degree to which central government expenditures have been used to support localized service delivery outcomes.

In order to create the evidence-basis for a more rigorous and detailed analysis on the decentralization and localization of public services and development interventions, a number of development agencies, united under the Development Partner Working Group on Decentralization & Local Governance (DeLoG) supported the adaptation of the research methodology developed by the Urban Institute's Local Public Sector Initiative to focus on the role of the entire local public sector in achieving development results in two sectors: health and education. In addition, through DeLoG, numerous development partners supported or participated directly in the collection of LPS Country Surveys on Health and Education, resulting in a cross-sectional data set for the year 2010 based on data for 29 countries. The data collection process was informative, revealing both the availability (or unavailability) of relevant data on local public expenditures, as well as the degree to which non-devolved local public sector activities and expenditures have largely been overlooked by the Community of Practice on decentralization and local governance.

The findings presented in this report confirm the importance of the local public sector in providing MDG-relevant services. The analysis of the multi-country dataset not only reveals that countries typically rely on multiple models of decentralization, but that by focusing exclusively on devolved expenditures, previous research may have overlooked up to two-thirds of all local public sector expenditures on health and education. Conversely, this means that **local governments account for only about one-third of local public sector spending** in the examined countries. The analysis further reveals that countries that spend less on public services via devolved mechanisms tend to make up the difference by spending more on local service provision via other modalities of decentralization or localization.

Turning to the sectors themselves, this study finds that health and education expenditures and services each have their own subnational patterns. The health and education sectors—even in the same country—often rely on different combinations of decentralization and localization, most likely in recognition of the different nature of public services in each sector and due to the different challenges that each sector faces. **Our results convincingly show that there is a positive correlation between localized sectoral spending and sector outcomes in health and education.** The empirical analysis of the impact of different types of decentralization and localization on sector outcomes is consistent with the hypothesis that the localization of expenditures is an important determinant in achieving positive outcomes, particularly in the education sector.

Although the findings presented in this report have important implications, it should be recognized that this study is the first attempt of its kind to determine the impact of local public sector expenditures and institutions on global development outcomes. While some aspects of the methodology build on well-established previous empirical models, other aspects have limitations. In particular, the data set is constrained by its small size (29 countries) and its limited temporal scope (expenditure data from a single year). Efforts should be made to expand the data set both to verify these results, and to address issues such as causality in the relationship between local expenditures and development outcomes.

Similarly, at the country level, discussions on the role of localization in implementing development policies will be informative and helpful during the transition from the MDGs to the post-2015 agenda.

As the community of practice continues to debate the proposed post-2015 sustainable development goals, we should keep in mind that development is implemented locally, and that there is growing evidence to show that such decentralization and localization have a fundamental role to play in successfully implementing and achieving global development objectives at the national level.

# **LOCALIZING PUBLIC SERVICES AND DEVELOPMENT: THE LOCAL PUBLIC SECTOR'S ROLE IN ACHIEVING DEVELOPMENT GOALS IN HEALTH AND EDUCATION**

## **1. Introduction**

In the year 2000, the global development community adopted a set of eight concrete, ambitious global development goals to be achieved by the year 2015. The eight Millennium Development Goals (MDGs)—which range from halving extreme poverty rates to combating HIV/AIDS, malaria and other diseases, and providing universal primary education—form a blueprint agreed to by all the world's countries and all the world's leading development institutions. The MDGs have galvanized unprecedented efforts to improve access to and the quality of public services, especially for the poor, in recognition of the social and economic impact of many public services—including the provision of public education, basic health services, agricultural extension services, access to clean water, sanitation, and so on.

As a result of the adoption of the MDGs, the past decade has seen a considerable increase in official development assistance targeted at improved public services in health, education, and other MDG-related sectors (OECD, 2012). In many countries, however, the MDGs will not have been achieved by 2015. One of the obstacles to the achievement of global development objectives may be the fact that global development organizations work primarily or exclusively with central government institutions and officials, with limited recognition of the fact that the delivery of most public services is local in nature. While the empirical research in this area is inconclusive, there are indications that more responsive governance and greater resource allocations to the local level are critical ingredients in achieving sustained progress towards global development goals (UNDP/UN OHCHR, 2013; Boex, 2013).

Although the post-2015 sustainable development goals largely continue to be organized in line with key thematic areas or sectors (such as education, health, water, food security, energy, and environmental sustainability), the preliminary formulation of the post-2015 agenda specifically takes into account that the implementation of sectoral services takes place in a localized manner. Indeed, a series of dialogues on the implementation of the Post-2015 development agenda has been held in nearly 100 countries in all parts of the world. One of the thematic areas dealt with in these dialogues was the localization of the post-2015 agenda, recognizing that territorial administrative bodies and local governments are key actors for accelerating poverty reduction in the context of sustainable development, and should therefore be given a prominent role in implementing the post-2015 agenda (UNDP et al, 2014). The consultations on the localization of the post-2015 agenda concluded on October 15, 2014, with the Turin Communique, which concluded that “[t]he implementation of the post-2015 Agenda will greatly depend on local action and leadership, in coordination with all other levels of governance. Any new development agenda will only have an impact on people's lives if it is successfully implemented at the local level.” (Turin Communique, 2014)



The localization of public services and development interventions is not a new topic. In addition to its inclusion in the formulation of the post-2015 global development framework, over the past decade the international development community has increasingly promoted and relied on the principles of country ownership, alignment, harmonization, results-orientation, and – when possible – the use of country systems (Paris Declaration, 2005; Accra Agenda for Action, 2008). This means that whenever countries – through the appropriate legislation—commit to providing key public services in a devolved manner, development partner interventions should be designed in such a way that they appropriately support the role of local governments in improving frontline services. In this light, the 2011 Busan Global Partnership for Effective Development Cooperation specifically recognized the critical role that local governments play in linking the state and its citizens, in order to achieve democratic ownership, accountability, participation and effective public service delivery.

While strong arguments can be made that improved local governance and decentralization will contribute to more efficient public services and greater economic growth, this view is not universally shared within the development community. In fact, the academic research on the role of the local public sector has been unable to confirm to what extent (or under what conditions) a greater degree of decentralization results in better development outcomes (e.g., see Smoke, Löffler and Bosi, 2013). The absence of such evidence can be attributed in part to the complexity of multi-level governance and service delivery systems as well as to the absence of the necessary data to properly measure the contribution of different government levels to development outcomes.

In order to fill this void in the state of knowledge, the current study engages in an empirical stock-taking exercise—based on data from 29 developing and transition countries—to assess the contribution of local governments, and the local public sector more broadly, in achieving the global development goals.

The results from this study—presented in this report—show that countries in which a greater share of sectoral resources flows down to the local level in the health and education sectors tend to achieve better health and education outcomes, respectively. Whereas the initial results presented in this study reveal a positive correlation between local public sector spending and sectoral outcomes, at this stage, we are not yet in a position to determine whether this relationship is causal in nature. Nonetheless, these results form a strong evidentiary starting point to promote a better-informed debate on the more prominent inclusion of the local public sector in the implementation and monitoring of the post-2015 sustainable development agenda.

## **2. The role of the local public sector in achieving localized public service delivery and global development goals**

### The local public sector, public service delivery and poverty reduction

Local governments and the local public sector have an important role to play in the achievement of global development goals. Most development experts agree that the bulk of pro-poor public services that are relevant for the MDGs as well as for the post-2015 agenda going forward—including the provision of public education, basic health services, agricultural extension services, access to clean water, and so on—have to be delivered in a localized manner (Boex, 2010). Therefore, it would have been reasonable to expect that since 2000, an increasing share of ODA as well as an increasing share of public sector resources in developing countries would have been funneled towards the local public sector.

Many economic development and poverty reduction strategies, however, seem to have overlooked the role of local governments and the role of the local public sector more widely. In fact, an early assessment of progress on the implementation of the first generation of Poverty Reduction Strategy Papers (PRSP) conducted by the IMF (2003) simply dismissed the role of the local public sector by noting that “translating the PRSP into local priorities—including in the context of decentralization—is not reviewed here.”

As discussed further below, the empirical evidence uncovered by the current study suggests that in many developing countries, a not insignificant share of the funding that is made available for pro-poor government services—both from domestic as well as international sources—has remained stuck at the central government level in a way that has not necessarily improved public service performance or global development outcomes. This means that greater progress towards global development goals could have been achieved if central authorities had been willing to rely more on the local public sector. Going forward, these results warrant a re-thinking of how governments and development agencies should approach their ambition to achieve sustainable development results.

#### What is the scope of the local public sector?

Many countries around the world rely on elected regional or local governments to interact with communities and residents at the grassroots level and to provide certain public services, in a process known as *devolution*.<sup>1</sup> Indeed, the traditional focus of development interventions in the area of decentralization and local governance has been on strengthening elected local governments. Likewise, much of the existing analysis of the local public sector and local public sector finances has focused narrowly on the expenditures and revenues of devolved state and local governments.

Hence, the focus on devolution as the only mechanism for localizing development interventions by the public sector is incomplete. Whereas a strong argument can be made that countries in which local governments play a more extensive role in the delivery of public services tend to achieve better development outcomes (a point which is confirmed by the current analysis), this does not necessarily mean that devolution is the *only* mechanism that can achieve better development outcomes.

A comprehensive analysis of the local public sector should take into account that there are different approaches by which governments interact with—and deliver services to—the people. Roughly half of the countries around the world deliver public services predominantly or exclusively through mechanisms other than devolution. Many countries rely on local “deconcentrated” administrative bodies, which are a hierarchical part of the state administration and do not have their own elected political leadership. In other cases, central government may delegate the delivery of public services to para-statal organizations or NGOs, or may even deliver certain public services directly through central government agencies.<sup>2</sup> Indeed, in most countries, frontline services—even within a single sector—are often provided and funded through a combination of different ‘vertical’ or intergovernmental mechanisms at the same time.

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<sup>1</sup> See Boex (2013) for definitions and further clarification of the terminology used here, including for the terms devolution, deconcentration and related terms.

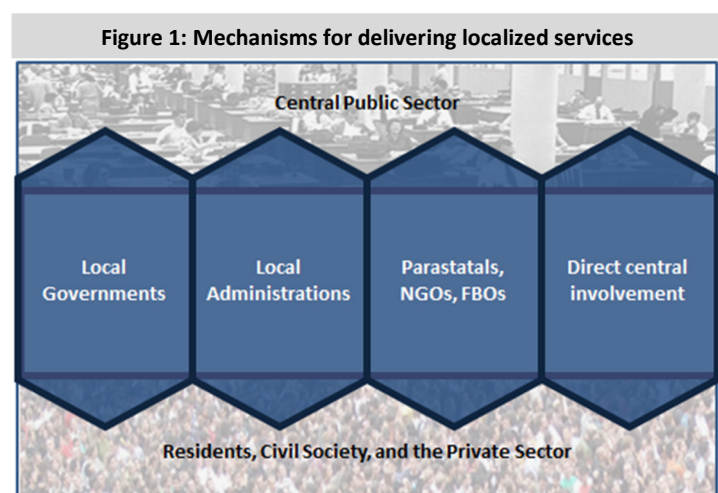
<sup>2</sup> Indeed, as is discussed further below, development agencies frequently work either through central government agencies or through parallel mechanisms that circumvent the local public sector.

In this line of argument, decentralization and local governance are increasingly understood as a multi-level system of governance and service delivery, where the ability of local governments or other local public sector entities to contribute to the more effective delivery of public services is defined to a considerable extent by the intergovernmental institutional context within which they operate (Charbit, 2011). Rather than treating them as isolated actors, subnational authorities and central governments ought to be considered as mutually dependent. In this perspective, the key underlying question is not whether or not to decentralize, which falsely suggests that public services can be delivered effectively without having the public sector reach down to the local level. Nor is the key policy question which specific decentralization model to follow, since most countries rely on different funding streams and different vertical governance mechanisms at the same time.<sup>3</sup> Instead, the key challenge is to look at ways to improve capacity and the (vertical and horizontal) co-ordination among public stakeholders at different levels of government, and to determine ways in which local governments and other local-level stakeholders are able to increase the efficiency, equity and sustainability of public services and public spending.

The local public sector should thus be understood as the local space within which multi-level governance and service delivery takes place. As a working definition, the local public sector can be defined as that part of the public sector that regularly interacts with residents, civil society, and the private sector within a localized setting; it is where residents and businesses regularly receive services from the public sector and where residents interact with government officials.

As a more practical definition of the local public sector, Boex (2012) defines a specific list of public sector functions that are (a) localized in nature, and (b) involve regular interaction between the public sector and residents, civil society and the private sector. Following this definition, a complete measure of local public sector expenditures should include all spending that directly supports the local-level delivery of public services such as primary and secondary schools and basic health services. In addition, in order to be comprehensive, the functional definition of the local public sector further includes tertiary (university) education as well as hospital services, to the extent that these are publicly provided or publicly funded.

Based on this functional definition of the local public sector, the local public sector includes not only the activities and spending of **'devolved' state and local governments** (as has traditionally been the case), but also encompasses the activities of any **deconcentrated administrative bodies** below the central level. Deconcentration is the transfer of decision-making authority and financial responsibilities from central government officials in the capital city



<sup>3</sup> The argument set forth here downplays the importance of local governments in achieving a more democratic, responsive, inclusive and accountable public sector. To the extent that decentralization by devolution promotes these objectives, devolution is likely to be a preferable modality to other approaches in the long run. This argument notwithstanding, the current study focuses on the immediate impact of decentralization and localization on service delivery and development outcomes.

to those working in regions, provinces, or districts.<sup>4</sup>

Another set of funding flows that is counted as part of the local public sector includes ***spending by central government line ministries*** (or other central government agencies) ***that support the front-line delivery of public services in a direct and localized manner***. For instance, if a central line ministry directly funds the construction of health clinics or school buildings (as opposed to allowing local governments to do the same through their own budgets), this spending ought to be considered part of the local public sector, since the resulting infrastructure is used in a direct and localized manner in the delivery of local public services (and thus is likely to have a positive impact on local service delivery outcomes). Another example of central spending on localized services is when a central line ministry provides subsidies or grants to semi-autonomous government authorities or third-party service providers (e.g., quasi-public institutions such as universities or hospitals; NGOs, faith-based organizations, or even for-profit organizations) to fund direct, localized public services.<sup>5</sup> Together, this central government spending in support of localized service delivery may be referred to as “direct and delegated local public sector expenditures”.

In this way, the concept of the “local public sector” encompasses all mechanisms and funding flows that contribute to localized public services and localized development in a direct manner. Of course, not all central government spending plays a direct and localized role in local service delivery. In fact, most central spending only has an *indirect* impact on service delivery outcomes at the local level.<sup>6</sup> While important to the ultimate service delivery outcomes, these central public sector expenditures are *not* considered to be part of the local public sector.

#### What do we know about the local public sector in countries around the world?

Given the considerable differences across countries in the functional responsibilities, powers, authority, and institutional structure of local government bodies, we would expect that the impact of local governments on development outcomes would vary considerably across countries. Yet despite over half a century of research on local governance and local government finances around the world, only very limited effort has gone into cataloging the institutional (political, administrative and fiscal) features of local government entities in different countries.<sup>7</sup>

Furthermore, little or no systematic attention has been paid in the literature to the size and scope of non-devolved local public sector expenditures. In other words, while some efforts have been made to collect information on the contribution of the “state and local government sub-sector” to the public sector (which is defined by the IMF as a sub-sector of the government sector), no comparative information or data are available on the size of deconcentrated expenditures in different countries, or on the role of deconcentrated entities in achieving service delivery outcomes. Similarly, no comparative information is available on the role of centrally-funded “direct and delegated expenditures” in achieving sector outcomes in different countries.

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<sup>4</sup> While deconcentrated officials are posted at the subnational level, they remain an integral part of the central (or higher-level) government.

<sup>5</sup> One particular example of such “delegation” occurs when a central line ministry gives grants to Parent-Teacher associations or School Management Committees (which are formally outside the public sector) in order to perform public sector functions, such as school maintenance.

<sup>6</sup> Examples include policy and regulation functions; curriculum development; inspection and supervision; and so on.

<sup>7</sup> UCLG (2008); CLGF (2014); Yilmaz et al (2008); World Bank (2009); Ivanyina and Shah (2014).

In the absence of critical information about non-devolved local public sector expenditures, researchers and practitioners dealing with decentralization and local governance are unable to answer some of the most fundamental questions about the role of the local public sector in achieving development outcomes. For instance, what share of public sector spending within a country is directed towards the local level in support of front-line services? How important is the role of local governments when compared to all resources that are directed towards the local level? These are obvious and important questions which the previous literature was unable to answer.

### 3. Research questions

The objective of the current study is to better understand the role of the local public sector in the performance of the public sector as it pursues key service delivery and development outcomes. In order to enhance our understanding of the local public sector, extensive efforts were made to collect comparative information on local public sector institutions and local public sector expenditures in health and education in 29 developing and transition countries around the world. Relying on this newly available data set (which is further described below), four closely related research questions are considered:

***First, how big is the local public sector in different countries, and what is the composition of local public sector expenditures in health and education?*** When sectoral expenditures in health and education are broken down vertically (across different levels of government or between different administrative tiers), how much sectoral spending takes place below the central level in different countries? This question is important in order to determine what share of sectoral resources is spent at the central government level for “sectoral overhead” and to what extent financial resources trickle down to the local level. Section 5 below provides an overview of the initial evidence on this point based on the newly available data.

Since it is unlikely that different types of local spending have the same impact on development outcomes, we would further like to know more about the composition of local public sector expenditures within health and education in each country. A question of particular interest is to determine the share of total local public sector spending executed by devolved local governments. This analysis should reveal what share of localized service delivery expenditures has been overlooked by the previous literature by adhering to an excessively narrow definition of the local public sector (which exclusively encompassed devolved local government spending).

***Second, in their pursuit of the MDGs, to what extent have development partners and donor agencies relied on the local public sector in order to improve MDG-relevant public services? Have public sector resources—as well as resources from development partners—for MGD-relevant services remained stuck at the central government level?*** While government spending and private expenditures often comprise the largest part of sector expenditures, in many of the less-developed countries donor funding represents a significant portion of the national budget for health and education. Whether these funds are processed through partner-country systems, or whether they are administered in a projectized manner, to what extent are they localized, and to what extent do funds stay at the central government level?

***Third, what does the data set suggest about the relationship between local public sector spending and sectoral development outcomes?*** For instance, do the data suggest that countries with greater local public expenditures have achieved better results with regard to their sectoral development objectives? Does the type of local-level spending or the quality of local governance seem to matter? Section 6 of this study provides an initial analysis of this point by analyzing across countries the correlation between the share of local public sector spending in health and education and sectoral outcomes in these two sectors. In turn, Section 7 relies on multivariate regression analysis to explore this question in a more rigorous manner.

***Finally, based on these results, what is the potential for improving specific sector development outcomes (in education and health) if more funds are channeled through the local public sector?*** Our empirical analysis is unable to determine (with any degree of certainty) whether greater local public sector spending is merely correlated with better sectoral outcomes or whether greater local public sector spending in fact *causes* improved sectoral outcomes. Nonetheless, our analysis provides evidence of the important role of the local public sector in achieving development outcomes. As such, Section 8 contains some preliminary lessons and next steps about strengthening the role of local public sector in achieving development outcomes in the context of the post-2015 sustainable development agenda.

It should be noted upfront that the current study is not able (nor intended) to provide a definite answer to these important questions. Numerous factors limit our ability to draw strong conclusions from the initial empirical analysis that is presented in this report, including the cross-country nature of the data set; the non-random selection of countries included in the sample; the limited number of observations included in the data set; the limited temporal scope (expenditure data from a single year); and the incomplete nature of many country surveys. Nonetheless, we believe that our initial attempts to address these important policy questions using rigorous empirical techniques can be tremendously informative, and may guide further research on this topic.

#### **4. Data collection: Country Survey instrument and collection process**

As already noted, until recently, few systematic metrics were available to capture how the institutions and processes within the local public sector help effectively transform financial resources into public sector outcomes. The absence of the necessary metrics made it almost impossible to systematically explore the impact of the local public sector on development indicators or other measures of public sector performance, such as measures of good governance and control of corruption. In order to begin filling this knowledge gap, the Urban Institute's Local Public Sector Initiative (LPSI) developed an extensive set of comparative metrics that measure different dimensions of public sector institutions and finances (Boex, 2012).

The Local Public Sector Initiative methodology was first used in 2012-13 to prepare Local Public Sector Country Profiles for ten developing countries (Boex, 2013).<sup>8</sup> The initial analysis of local public sector expenditures found that there is considerable variation in the degree to which financial resources trickle down to the local level (across all functions or sectors within the government) from less than 20 percent

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<sup>8</sup> The initial phase of the LPSI's research agenda prepared Local Public Sector Country Profiles for Bangladesh, Cambodia, Indonesia, Mozambique, Nepal, Nigeria, South Africa, Sierra Leone, Tanzania, and Uganda. The preparation of the Country Profile was supported by USAID. These country profiles can be found online at <http://www.localpublicsector.org/profiles.htm>.

to over 50 percent. The initial analysis also appeared to suggest that a positive relationship exists between the size of the local public sector and government effectiveness. The current study builds on this initial analysis, and focuses more specifically on the health and education sectors.

#### Data collection strategy: local public sector expenditures in health and education

In order to create the evidence basis for a more rigorous and detailed analysis on the localization of public services and development interventions, a number of development agencies, under the umbrella of DeLoG - the Development Partner Working Group on Decentralization & Local Governance, supported the adaptation of the research methodology (developed by the Urban Institute's Local Public Sector Initiative) to focus specifically on the role of the local public sector in achieving development results in two sectors: health and education (DELOG/UI, 2013).<sup>9</sup> The health and education sectors were chosen for this study because they represent two of sectors that are most critical to the attainment of the global development goals (covering four out of eight MDGs), and because in many countries these two sectors represent between 40-60 percent of all local public sector expenditures (Boex, 2012). Furthermore, choosing two sectors allows the study to test whether localization is carried out differently across sectors within the same country context.

In addition, DeLoG and its member organizations engaged in and supported the collection of Local Public Sector Country Surveys focusing on health and education for almost thirty developing and transition countries. In total, 29 of these Country Surveys were completed and available for analysis.<sup>10</sup> Due to the limitations on data availability and the expense of collecting the necessary data, data were collected for the year 2010 for each country (or the year closest to 2010 for which data were available).

This unique data set is used to empirically investigate the role that the local public sector plays in providing public services and achieving development outcomes. Counting both devolved as well as non-devolved local public sector expenditures allows for a more even-handed comparison between (predominantly) devolved and (predominantly) deconcentrated or centralized countries, something which was hitherto not possible. In addition, the broader definition of sectoral decentralization captures important "local" resources that were previously not considered, since even predominantly devolved countries rely to different degrees on the in-kind transfer of sectoral supplies (from central ministries to local governments), "vertical programs", and the centralized procurement of local infrastructure.

#### The Local Public Sector Country Survey

The Local Public Sector Country Survey instrument prepared for this study is an Excel-based data collection template, which was distributed together with a detailed instruction manual.<sup>11</sup> The first three pages of the survey cover the basic components of the Local Public Sector Country Profile, including (i) an organizational / governance profile of the public sector; (ii) a functional profile of the public sector; (iii) a vertical expenditure profile of health and education expenditures; and (iv) an institutional profile of the local public sector.

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<sup>9</sup> See Boex (2012) for the complete underlying Local Public Sector Country Profile methodology.

<sup>10</sup> The data set prepared for this study contains sectoral expenditure profiles for Albania, Bangladesh, Benin, Bolivia, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Ethiopia, Ghana, Guatemala, Indonesia, Kenya, Lesotho, Macedonia, Mali, Mauritania, Mozambique, Namibia, Nepal, Nigeria, Peru, Senegal, Sierra Leone, South Africa, Tanzania, Uganda, and Vietnam. In the absence of a more detailed LPS Country Survey, for some countries, data were drawn from the available LPS Country Profile instead.

<sup>11</sup> These materials are available online at: [http://www.localpublicsector.org/lps\\_development\\_study2.htm](http://www.localpublicsector.org/lps_development_study2.htm).



The fourth page of the Local Public Sector Country Survey collects information and data on public sector outcomes and the performance of the public sector. In particular, this consists of MDG indicators that are relevant for the sectors of interest. To the extent possible, data for the Country Surveys were taken from global data sets containing cross-country comparative data such as the Millennium Development Goals Indicators (UN, 2014). However, considerable data for the LPS Country Surveys had to be collected from primary sources at the country level.

**Figure 2: Sample tables from the Local Public Sector Country Survey (Peru)**

Panel A: Sectoral expenditure profile for health expenditures (Peru)

VI. SECTORAL SPENDING: HEALTH EXPENDITURES (E707)						
	Subnational Level / Tier / Type	Pers. Exp.	O&M Exp.	Supplies Exp.	Capital Exp.	Total Exp.
C	Central (Non-Local) Expenditures	980,097,116	401,788,175	75,224,932	24,752,137	1,481,862,360
D	Direct & Delegated Expenditures	227,792,674	357,859,077	824,823,134	447,824,760	1,858,299,645
1	Regional Government	1,415,758,174	734,538,412	391,684,933	463,307,127	3,005,288,646
2	Local Government	9,686,841	32,999,897	9,660,957	246,217,375	298,565,070
3	...					
4	...					
	Total Expenditures	2,633,334,805	1,527,185,561	1,301,393,956	1,182,101,399	6,644,015,721
	Substantial central control over LPS Exp?	Yes	Yes	Yes	Yes	Yes

Panel B: Political institutional profile for regional and local governments (Peru)

THE LOCAL PUBLIC SECTOR'S ROLE IN ACHIEVING DEVELOPMENT GOALS					
LPS COUNTRY SURVEY - PAGE 3					
IX. POLITICAL INSTITUTIONS AT THE LOCAL LEVEL					
	Subnational Level / Tier / Type	1.	2.	3.	4.
C3.4	The central government recognizes the principles of local autonomy and subsidiarity in law and in practice.	No	Yes	...	...
C3.7	Local government elections have been regularly held over the past 20 years.	No	Yes	...	...
P3.3	Local political candidates are (s)lected at local level with little or no central party involvement.	Yes	Yes	...	...
P3.5	The ruling national party does not have a dominant position in local elections; other parties control at least 25 percent of local governments.	Yes	Yes	...	...
P4.2	Local records and documents are required to be available (and are available) to the public.	Yes	Yes	...	...
P4.4	Alternative participatory mechanisms (such as referendums) are used at local level.	Yes	Yes	...	...

#### Observations about data collection process

Local Public Sector Country Surveys were collected by DeLoG member organizations.<sup>12</sup> Countries were largely selected for inclusion in this study based on the expected availability of the necessary data. This

<sup>12</sup> Support in the collection of Country Surveys was provided by the GIZ (Gesellschaft für Internationale Zusammenarbeit), the French Ministry of Foreign Affairs, the Swiss Agency for Development of Cooperation (SDC), UNDP, UNCDF, and the World Bank.



point notwithstanding, the resulting data set provides a reasonably representative cross-section of developing country experiences, from Africa, Asia, and Latin America.

For the purpose of completing the Country Survey, development partners often contracted a local consultant with knowledge of the local government finance system. As such, the composition of the data set was driven in part by the level of interest from (and resources available within) development partner country offices. Technical backstopping was provided to the consultants by a small research team based at the Urban Institute in order to provide a degree of consistency and quality control. It was impossible, however, to independently verify and validate the robustness of all data provided by the country-based experts.

The data collection process was more time consuming than originally envisioned. However, the process was informative, both about the availability of relevant data on local public expenditures, as well as about the degree to which non-devolved local public sector activities and expenditures have largely been overlooked by the Community of Practice on decentralization and local governance.<sup>13</sup> In some cases, the necessary sectoral expenditure data were simply not publicly available in order to determine the vertical allocation of sectoral resources. In many other cases, it was clear that the decentralization/local governance experts involved in the completion of the Country Survey were not used to collecting and/or analyzing non-devolved local public expenditures from sector ministries. These data collection challenges were compounded by the fact that the data collection instrument introduced new concepts and metrics that had not previously been measured.

## **5. An analysis of vertical resource allocations in health and education in developing and transition countries**

The first step in the current study was to prepare a vertical expenditure profile for health and education for each country included in the study. These sectoral expenditure profiles tally the share of sectoral resources within the public sector under the control of each different government level or administrative tier.

To the extent that the cost of providing primary education is included in the budget of local or regional governments in a country, these expenditures are counted as devolved expenditures. In the figures below, such devolved expenditures are reflected in dark blue. For instance, any expenditures on health services and education made by local and regional governments in Indonesia were categorized as devolved expenditures, since both *kabupaten* (districts) as well as provinces in Indonesia are elected local government entities. It should be noted that local government expenditures are counted as local public sector expenditures regardless of their funding source: the overall vertical expenditure profile is inclusive of all local government spending, including local government expenditures that are funded from local own source revenues, revenue sharing, unconditional grants, or conditional grants.

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<sup>13</sup> While sectoral experts are generally aware of non-devolved sectoral funding flows to the local level, sectoral experts often lack a complete understanding of how these funds are controlled or managed at any level below the central line ministry.

**Box: The degree of local discretion over devolved local government spending**

The focus of the vertical expenditure profiles for health and education presented below is on the government level or tier at which an expenditure is made, rather than on the government level or tier that controls the expenditures. For instance, in many countries, local government spending on primary education is partially or fully funded by sectorally earmarked grants. In other countries, funding may be provided to the local government level through unconditional grants, but the way in which these resources are spent may be controlled by the higher-level through regulatory mechanisms. As a result, it is close to impossible to accurately quantify the degree to which local governments actually have control over their own spending.

Although this is not reflected in the tabulations below, the Country Survey breaks down sectoral spending at each government level or tier into wage expenditures; non-wage recurrent spending on goods and services; expenditures on supplies (such as medicines or school books) and capital development spending. In addition, for each of these spending categories, the vertical expenditure profile indicates whether central government exercises “a substantial degree of control over local spending”.

Our survey results suggest that in virtually all countries included in our sample, central governments exert considerable control over local government spending. In fact, central government control over local sectoral expenditures was so pervasive that it was not possible to estimate whether a greater degree of local government discretion over sectoral spending has a positive (or negative) impact on sectoral outcomes. The impact of this issue on our empirical results is discussed further in Section 7.

In contrast, to the extent that the operating cost for schools or local health centers (e.g., teacher wages or the cost to operate and maintain the school buildings or clinics) is contained in the budget of a deconcentrated education department, such expenditures are counted as deconcentrated sectoral expenditures.<sup>14</sup> Deconcentrated expenditures are indicated in light blue in the figures below. For instance, teacher salaries in Mozambique are paid by provincial education departments. Since Mozambique’s provinces form a deconcentrated part of the national government (and their budgets are prepared and included in the national budget as deconcentrated units), all spending by provincial line departments in Mozambique is counted as deconcentrated expenditures.

As noted above, not all central line ministry expenditures are considered strictly “central” in nature.<sup>15</sup> Instead, central line ministry expenditures were reviewed in detail, and to the extent that central expenditures were found to directly support localized services, these expenditures were included in the category “centrally-controlled local spending.” These expenditures are reflected in the subsequent figures as the shaded (grey/light blue) segments. In some countries (particularly those that are highly devolved or deconcentrated), little or no central-level spending is directed towards local-level services

<sup>14</sup> Note that in order for sector expenditures to be counted as deconcentrated expenditures, the regional or local sector department has to be a budgetary sub-organization or budgetary sub-unit of the line ministry in the Chart of Accounts. In other words: a deconcentrated department should have its own formal budget (as part of the national budget) in order for its spending to be considered “deconcentrated”. When a line ministry is administratively deconcentrated but subnational departments lack their own sub-organizational budget, these expenditures are considered as “centrally-controlled local spending”.

<sup>15</sup> In order to avoid double counting, expenditures were recorded at their point of final expenditure. This means that intergovernmental fiscal transfers to lower-level government units were not considered to be “expenditures” at the higher level. Furthermore, to the extent that central line ministry expenditures contained deconcentrated expenditures (as noted above), these expenditures were also removed from central government expenditures.

(e.g., South Africa). In other countries, the central level plays a more direct role in localized service provision, such as when line ministries procure text books or medical supplies on behalf of lower-level governments, and provide these to the local level in-kind (as is the case in the provision of local health services in Tanzania, for example). Likewise, it is not unusual for central line ministries to be involved in the provision of “vertical programs” (especially in the health sector) and in the procurement and construction of physical infrastructure (school buildings or health facilities). To the extent that these expenditures are made from the central government budget while the benefits from these expenditures are directly visible to the end-user of the public services in a localized manner, these are all examples of “centrally-controlled local spending”. In Sierra Leone, for example, while local councils have formal responsibility for primary healthcare provision, the central government in fact pays the salaries for all local health workers through the Ministry of Health. Since these services are delivered in a localized manner, Ministry of Health expenditures on the wages of local health staff were coded as direct expenditures on local health services by the central government.

Sectoral expenditures which remain at the central administrative level and which do not directly support localized service delivery are counted as non-localized “central government expenditures” and are indicated in light grey in the figures below.<sup>16</sup>

Following these definitions, Figures 3 and 4 present the vertical expenditure pattern in the health sector and the education sector in 29 developing and transition countries, respectively. For presentation purposes, countries are sorted by the share of total public sector expenditures that are either devolved, deconcentrated, or otherwise local in nature. The resulting sectoral expenditure profiles provide a first, unique insight into the vertical allocation of sectoral resources across a broad cross-section of developing and transition countries.

In interpreting these vertical expenditure patterns, one should bear in mind that the sectoral expenditure profiles prepared for this study were the first of their kind. The state of practice regarding the measurement of non-devolved local government finances was recently summarized by Torrisi et al (2011: 13) in a single sentence: “as for the measurement of deconcentration and delegation, in literature, to the best of our knowledge, there are no attempts to measure these forms of decentralisation separately from (fiscal) decentralisation [i.e., devolution]”. Although every effort was made to apply definitions consistently across all countries, for many of the in-country researchers that prepared the sectoral expenditure profiles, this was the first time that they were asked to review central line ministry budgets in order to identify non-devolved localized expenditures.

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<sup>16</sup> In a few countries (such as Sierra Leone), salaries for teachers and local health staff are included in the central line ministry budget. To the extent that teachers and health workers are a “direct and localized” input into health and education services, their salaries and wages were counted as part of centrally-controlled local expenditures.

Figure 3: Health sector expenditure patterns in selected countries, 2010

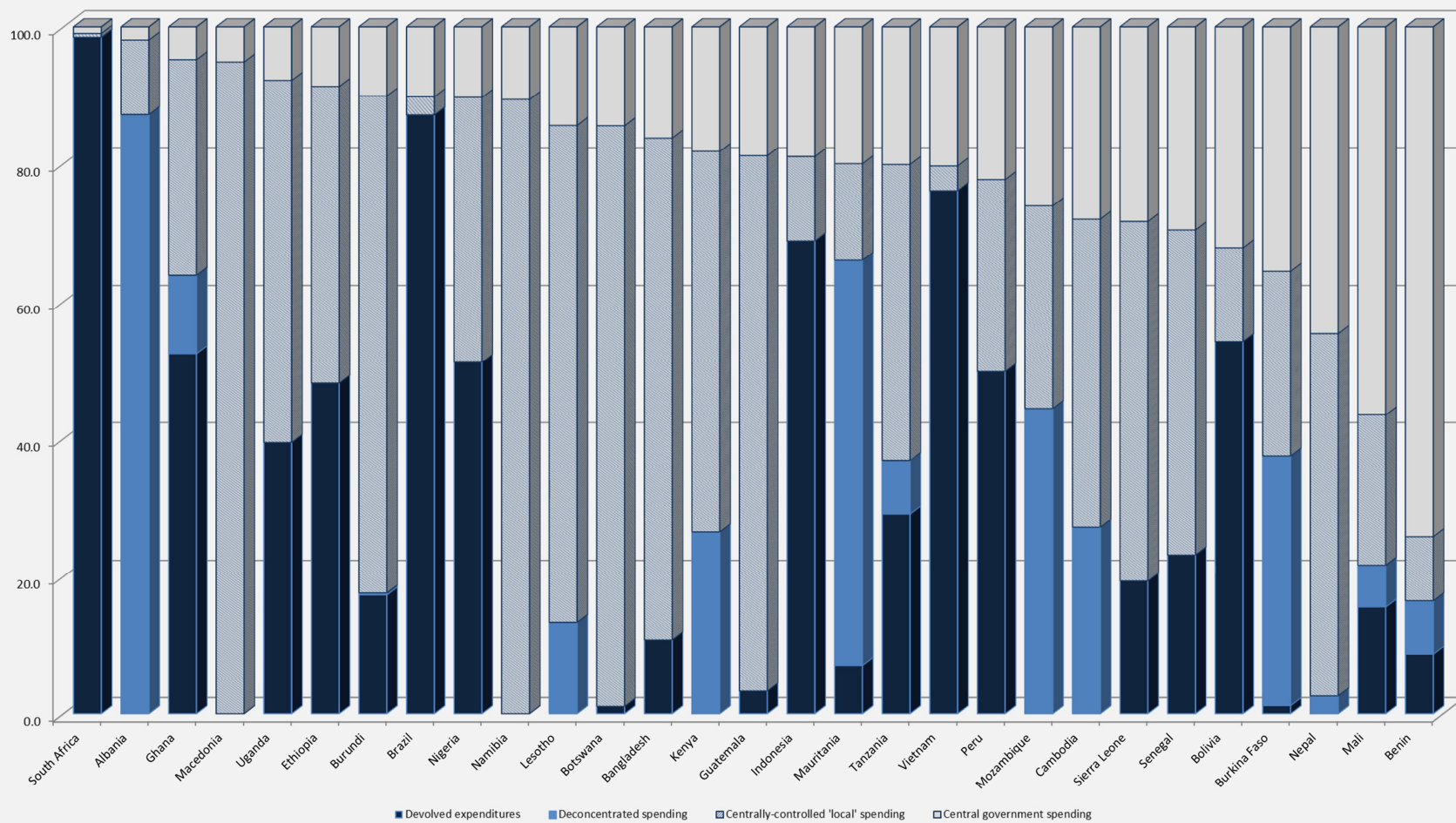
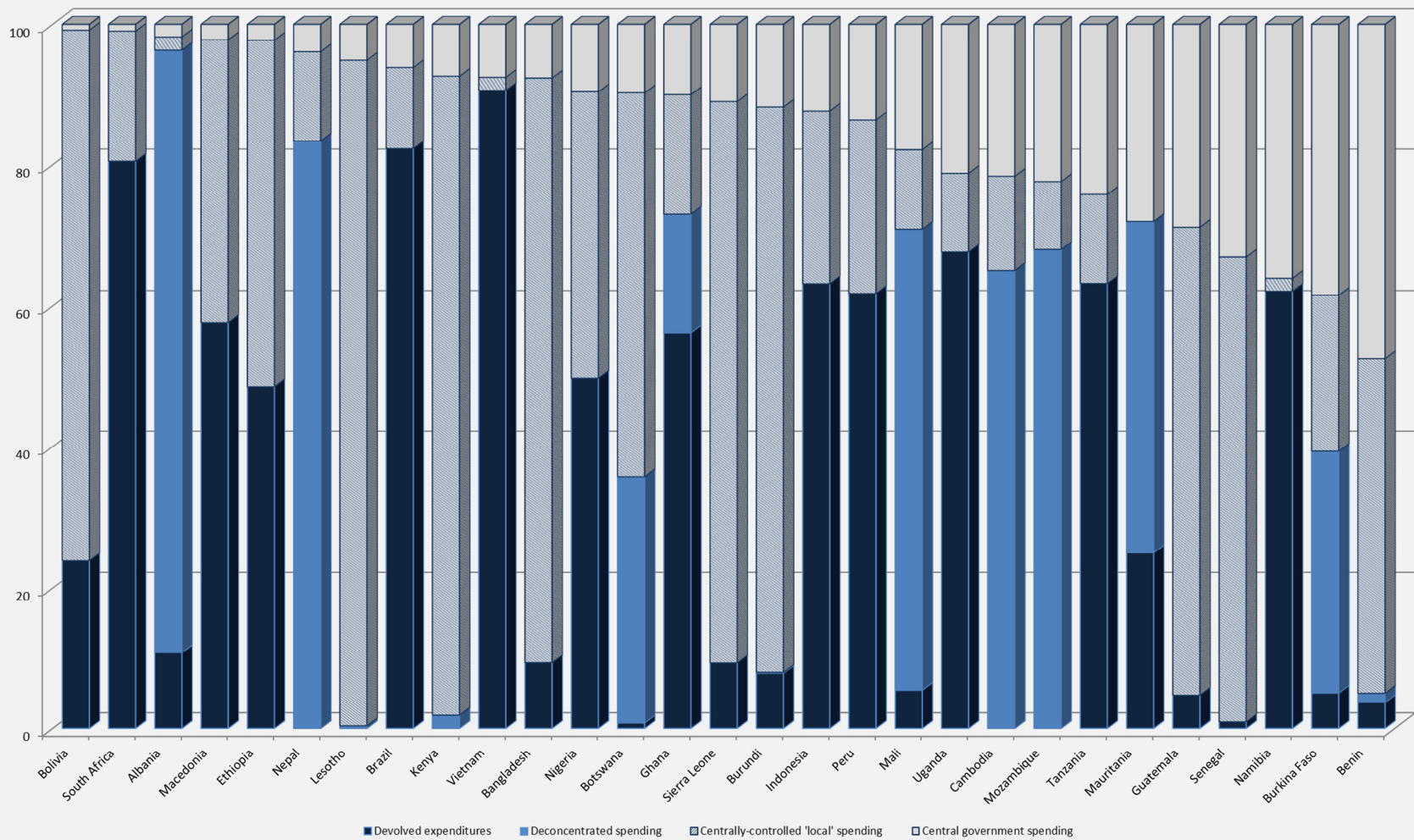


Figure 4: Education sector expenditures in selected countries, 2010



A final observation about the nature of the local public sector expenditures is that the distinction between devolved, deconcentrated and centrally-controlled local public sector spending may be less pronounced than one might expect at first glance. While it was possible (in most countries, at least) to capture the volume of resources being managed through these different channels, it proved much harder to determine who actually had discretion or control over the resources in each funding flow. The institutional information supplied as part of the Country Surveys indicated that it is not unusual for central government officials to exert a relatively high degree of control over local-level resources, including over resources that flow through local governments. In virtually all instances, including in the countries in our sample where local health workers and teachers are paid by local governments, central officials were found to have substantial central control over local public sector expenditures. Such limits on the discretion of local governments may suggest that devolved, elected local governments (in the countries in our sample) are actually more similar to deconcentrated administrative entities than we might otherwise suspect.

Based on the vertical expenditure profiles presented in Figures 3 and 4, some important patterns and lessons can be drawn.

#### The delivery of health and education services follows a multi-level approach

Figures 3 and 4 confirm the fact that ***the delivery of health and education services relies not on a single type of decentralization, but rather on a multi-level approach to governance and service delivery.*** The figures suggest that countries rarely follow a single model of decentralization; instead, stakeholders at all levels of government are typically actively involved to ensure access to public services in health and education. Since countries rarely rely on exclusively one model of decentralization or another, this means that there is no categorical answer to whether “devolution is better than deconcentration or centralized provision” in terms of achieving better sectoral outcomes. Instead, further research will have to explore whether different types of local public sector spending have a differential impact on service delivery outcomes.

#### The local public sector is bigger than was previously understood

In response to the question “How big is the local public sector?”, our analysis suggests that ***there is a lot more “local” spending in health and education than was previously considered.*** When we consider all public sector expenditures that are directed towards the local level in the delivery of health and education—not just *devolved* local government expenditures—it becomes clear that in virtually all countries, a large share of public sector expenditures is directed towards localized service delivery in health and education.

With an average of around 30 percent of total public expenditures within a sector channeled to elected local and regional governments in pursuit of local health and education outcomes (the dark blue segments in Figure 3 and 4) local governments often play an important role for service delivery in these sectors. However, countries typically allocate between 75-85 percent of sectoral resources to the local level when all local public sector spending for these sectors is considered (including the light blue and shaded segments in the figures). This means that local governments account for only about one-third (33.3 and 36.2 percent, respectively) of local public sector expenditures in health and education. In other words, ***when we only consider devolved local government expenditures, up to two-thirds of local expenditures in health and education may be overlooked.*** What is not revealed by these vertical expenditure patterns, however, is whether the absence of democratic accountability mechanisms at the local level has an impact on the effectiveness of non-devolved localized spending.



Looking exclusively at devolved local expenditures gives a distorted picture of local-level spending

An important finding based on the preliminary data is that countries that engage in less devolved spending on health and education through elected local governments tend to compensate for this by funding these sectors in a deconcentrated manner, or by central line ministries spending more on localized front-line services. As a result, ***countries that spend less on health and education through devolved local governments do not necessarily spend less at the local level in these sectors.*** Instead, we have to look at all localized funding streams before we can determine what share of resources “gets stuck” at the central government level.

This has an important implication for the previous empirical research on decentralization, which exclusively took into account devolved expenditures. To the extent that devolved local government spending is a bad predictor for total local public sector spending on health and education, and to the degree that non-devolved local public sector spending is (inversely) correlated to devolved spending,<sup>17</sup> previous empirical analysis on the impact of devolved expenditures on public sector outcomes (such as economic growth) potentially suffers from considerable omitted variable bias.

Health and education expenditures follow their own sectoral patterns

The vertical allocation patterns further reveal that ***sectoral expenditures in health and education have their own subnational patterns.*** Even though we tend to think about countries as either being more devolved or more deconcentrated as a whole (without making distinctions between sectors), the vertical expenditure profiles for the health and education sectors display considerably different patterns, both in terms of the total level of local public sector expenditures that are dedicated to each sector within each country, as well as in terms of the overall composition of sectoral expenditures.

The education sector tends to be somewhat more decentralized than the health sector, regardless which definition of the local public sector is considered (devolved spending only; devolved plus deconcentrated expenditures; or all local public expenditures).

To what extent do development partner interventions rely on the local public sector?

Another research question of particular interest is the degree to which the development partners, in their pursuit of the Millennium Development Goals (and in the future, in pursuit of the post-2015 sustainable development agenda), have relied on the local public sector in implementing their development interventions.

In order to translate the post-2015 sustainable development agenda from central-level policy intentions to development progress on the ground, the global development community needs to strengthen the basic ability to identify and measure all sectoral mechanisms and funds that flow to the local level, regardless of whether this mechanism is a devolved local government, a deconcentrated local administrative office, or whether the resources flow directly from the central government level to front-line service delivery units (for instance, through a “vertical program” or some other centrally-managed intervention). In order to “measure what you treasure”, there is a need in many countries to focus

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<sup>17</sup> Indeed, our data set suggests that non-devolved local public sector spending is (strongly and inversely) correlated to devolved spending: the correlation coefficients for the share of devolved local public sector spending and the share of non-devolved local public sector spending are -0.81 for health and -0.92 for education.

greater effort on making non-devolved local public sector expenditure data publicly available at the necessary level of disaggregation and detail.<sup>18</sup>

Although the Local Public Sector Country Survey sought to collect information on the degree to which development partners in individual countries directly supported local-level interventions, the responses received on this part of the survey were often inconsistent or incomplete. While total sectoral ODA allocations are readily available from online data sources, it is frequently impossible to determine the extent to which these funds are spent on-budget, and to what degree these resources are spent in a localized manner. When development assistance is accounted through host country financial systems, it is sometimes possible to determine the vertical breakdown of expenditures. In most cases, however, data were not available on how donor funds were allocated vertically. In the case of ODA which is spent via parallel systems, rather than through host country systems, few countries have the capacity necessary to track all donor expenditures, much less disaggregate those expenditures by level of government or functional assignment. Whereas this study has started to shine light on the vertical allocation of public sector resources in health and education, vertically mapping development partner resources to the local level appears to be beyond the reach of the current study. Although further study on this issue is needed, our observations do not seem to suggest, however, that development partners tend to work in any more of decentralized or localized manner than the public sectors they support.

There are numerous examples within the global development community of well-designed interventions that support stronger localized service delivery, for instance, through sectoral basket funds that are allocated (through government systems) to the local government level. Similarly, there are numerous examples of health interventions and education interventions that, despite their best intentions, fail to effectively and sustainably improve localized services. While many sectoral decentralization reforms seek to involve local officials and front-line service delivery staff in localized planning and administrative processes, such sectoral reforms rarely change the fundamental power relationships between officials at different government levels or administrative tiers: while local officials (and sometimes, community actors) are invited to *participate* in local-level sectoral planning and/or implementation, the authority to make decisions and the control over resources (i.e., the ownership) often remains centralized.<sup>19</sup> **In order to improve the localization of sectoral interventions, there is an increased need for development partners to improve horizontal coordination between (local) governance programs and sectoral stovepipes.**

## 6. Relationship between local public sector expenditures and sectoral development outcomes in health and education

Although it is an intuitively appealing hypothesis that countries which spend a greater share of sectoral resources at the local level (through one mechanism or another) have better public sector outcomes, there is no guarantee that this is the case. Proponents and skeptics of decentralization reforms would readily agree that the performance of the local public sector depends considerably on the capacity—but also on the degree of authority, autonomy, and accountability—of local public sector entities. As such, the second stage of our research agenda seeks to empirically analyze the extent to which increases in

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<sup>18</sup> A recent World Bank effort that requires mention in this record is the BOOST initiative, which provides data tool makes it easy to analyze the subnational allocation and use of public expenditures (Kheyfets et al, 2011).

<sup>19</sup> For an example, see UNICEF/Bangladesh (2014).



the share of local public expenditures—as well as improvements in local governance—are related to improvements in development outcomes.

Much of the existing literature that tries to address this question is based on case studies rather than on empirical, cross-country analysis, and the available empirical evidence is inconclusive (M'Cormack, 2011; Smoke, Löffler and Bosi, 2013). Some initial evidence suggests that countries with more advanced decentralization have generally made more progress towards the MDGs. For instance, Sepulveda and Martinez-Vazquez (2011) find that more advanced fiscal decentralization is generally associated with lower income inequality. Similarly, a recent survey of selected African countries suggests countries that are further along, or more “mature” in their decentralization processes have made more progress on the MDGs than those in which decentralization is at an earlier stage (Veigel, 2012). However, these earlier studies exclusively consider devolved expenditures, and as such, are unable to take into account the impact of deconcentrated expenditure and other non-devolved local public sector expenditures.

When taking into account all local public sector expenditures (across all public sector functions), Boex (2013) finds that countries which spend a larger share of their public resources at the local level tend to rank higher in terms of government effectiveness, as measured by the World Bank's World Governance Indicators. In the same spirit, the current study seeks to explore the impact of the local public sector on global development outcomes by analyzing whether better sectoral outcomes in health and education are achieved in countries that devote a greater share of their financial resources to the local level within health and education.<sup>20</sup> Such an analysis could further show whether devolved countries or countries with stronger local institutions (in terms of local discretion and accountability, for example) tend to perform better in terms of MDG outcomes when compared to deconcentrated countries or countries with weak local institutions.

Figures 5 and 6 show how sectoral outcomes in health and education are correlated with total local public sector expenditures, which includes devolved plus deconcentrated expenditures at the local level as well as central spending on localized services. For this analysis, the Under-Five mortality rate (per 1000 live births) is used as an outcome measure for health services, whereas the literacy rate for men and women from 15-24 is used as the sectoral outcome measure for education services.

With regard to health sector outcomes, figure 5 suggests that countries that allocate a greater share of their public health expenditures at the local level tend to have a lower under-five mortality rate. Based on the current sample, the relevant correlation coefficient is -0.350. This general conclusion—countries that spend more on health at the local level tend to have better health performance (lower under-five mortality)—holds true regardless of how the size of the local public sector is defined.

Likewise, figure 6 reveals a clear positive relationship ( $r=0.430$ ) between the size of the local education expenditures and education outcomes (in particular, the literacy rate of men and women aged 15-24). Again, this general conclusion—countries that spend more at the local level tend to have better education performance—holds true regardless of how the share of local public sector spending on education is defined.

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<sup>20</sup> A number of studies analyze the impact of greater sector spending and other determinants on better outcomes in health and education. See, for instance, Wilhelm and Fiestas (2005), Vos (2008), Lay (2010), and AERC (2011),

Figure 5: Correlation between U5MR and local public sector health spending

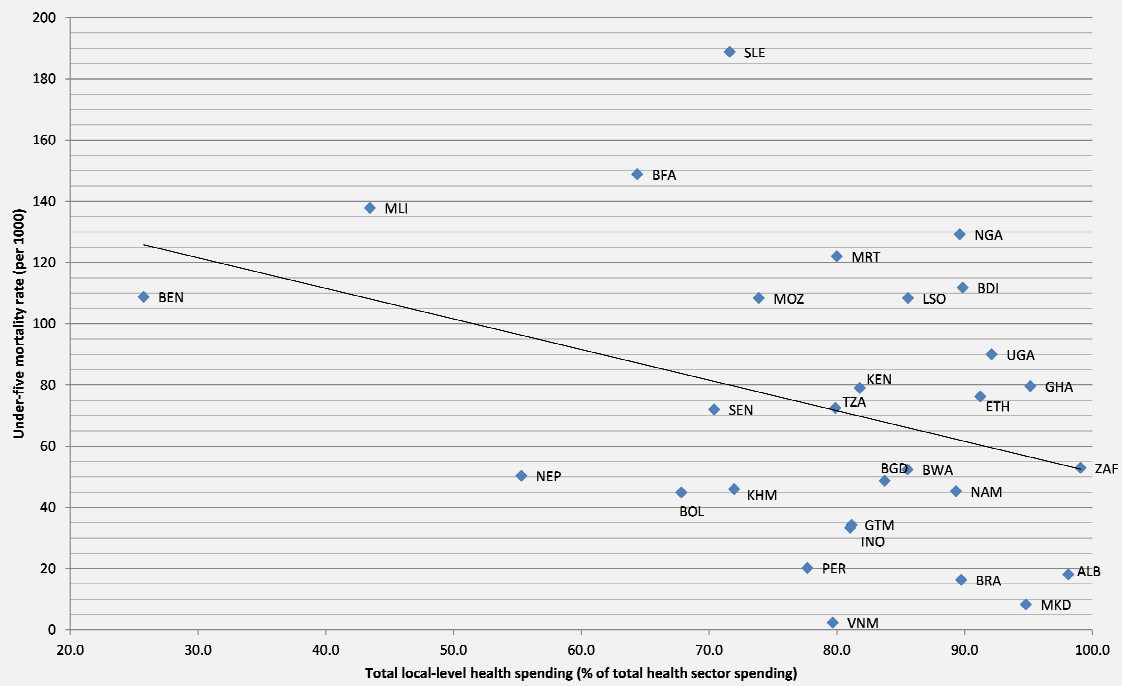
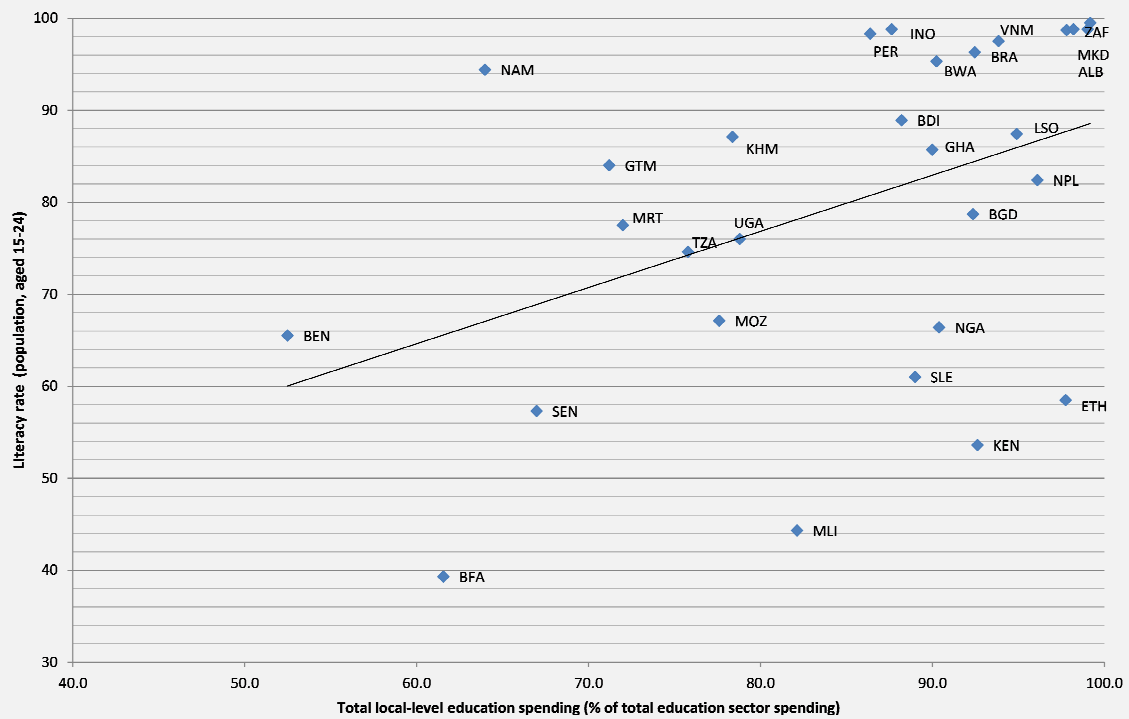


Figure 6: Correlation between literacy rate (15-24) and local public sector education spending



### Causality, inverse causality, or spurious correlation?

Although these correlations are consistent with a causal relationship between localized spending and development outcomes (which would have straightforward policy implications about the localization of sectoral spending), the simple correlation analysis presented here is unable to conclude whether these correlations reflect an actual causal relationship between the level of local public sector spending and improved sectoral outcomes. An alternative hypothesis is that there is a bi-directional or inverse relationship between local-level spending in a sector and sectoral outcomes. In other words, it is possible that better sectoral outcomes cause countries to spend more money at the local level.<sup>21</sup>

While it is possible that higher literacy rates result in greater demands for accountability, which in turn achieve better governance outcomes (Lurie, 2014), it is quite unlikely that improvements in the literacy rate of young people would have an immediate and drastic impact on the share of local-level spending.<sup>22</sup> Instead, it is more likely that the vertical sharing of public expenditures is driven by political economy factors and central bureaucratic capture rather than the result of popular demand for greater localized spending. The events in Egypt over the past few years provide a poignant example that a high literacy rate alone is insufficient to achieve enlightened governance and localized public spending decisions. An extensive political science literature documents the extent to which political and institutional motives drive public sector decisions, including resource allocation decisions (e.g., Bueno de Mesquita and Smith, 2012).<sup>23</sup>

Another possibility is that the correlation between local spending levels and outcomes is spurious. For instance, it might be the case that higher-income countries have better sectoral outcomes (i.e., higher literacy and lower child mortality) while higher-income countries may also direct a greater share of public sector spending toward the local level. This is plausible since the demand for (private as well as public) health and education services is positively associated with GDP or household income (e.g., “wealthier is healthier”, according to Pritchett and Summers, 1996), while rising incomes are also likely to result in a higher demand for good governance (Collier and Rohner, 2008) and the associated decentralization of public resources.

A similar argument could be made around effective government and good governance: countries with more competitive political systems (for instance, countries with greater political representation and greater respect for civil liberties) are likely to work harder to improve service delivery outcomes in response to public pressure, while at the same time, these same countries—either in order to achieve these better outcomes, or independently thereof—are likely to spend more sectoral resources at the local level.

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<sup>21</sup> This scenario has some rough equivalence (although with the inverse impact) to the scenario in which poor sectoral performance causes policy makers to increase sectoral spending (in order to improve sectoral outcomes). In this case, simple linear analysis would find a (counter-intuitive) inverse relationship between sector spending and sector performance.

<sup>22</sup> To the extent that vertical fiscal balance is driven by electoral pressures or political economy forces, a direct (or even indirect) causal impact of better child mortality outcomes on the policy decision of how health resources are vertically shared is similarly implausible.

<sup>23</sup> Easterly (2014) argues that global development organizations are equally driven by their own set of political economy considerations. This is felt to be true for development agency support for decentralization and local governance reforms as well.

## 7. An analysis of the potential impact of local public sector spending on development outcomes

The fourth research objective for this study is to determine the potential for improving specific sector development outcomes in education and health if more funds are channeled through the local public sector. As such, we explore the impact of the local public sector on global development outcomes by analyzing whether better sectoral outcomes in health and education are achieved in countries that devote a greater share of their financial resources to the local public sector. Our analysis further considers whether there is a differential impact of devolved spending, deconcentrated spending, and other local public sector spending on sectoral outcomes.

### Empirical model

A rigorous analysis of this research question requires the use of advanced quantitative analysis techniques beyond simple correlations. In order to deepen our understanding of the role of the local public sector in achieving development results in health and education, the following empirical model is estimated for selected global development performance indicators (MDG) in country  $i$ , for sector  $s$ :

$$MDG_{i,s} = f \left( \frac{local\ sector\ exp_s}{sectoral\ exp_s}, \frac{sectoral\ exp_s}{GDP_i}, Govt\ Effectiveness_i, GDP_i \right) + \varepsilon \quad (1)$$

Consistent with other empirical studies of this kind (e.g., Kamiya, 2010), the empirical model is built on the expectation that a country's progress on a development indicator is a function a number of policy variables, including the level and composition of sectoral spending, the quality of public institutions, as well as exogenous characteristics, such as the country's level of (per capita) GDP.

As far as policy variables, the empirical estimation of the model will reveal whether (a) increased total sectoral spending (as a percentage of GDP) is associated with improved sector performance; (b) whether greater local public sector spending (as a share of total sectoral spending) improves sectoral development outcomes; and (c) whether political, administrative and fiscal institutions and processes at the local level matter in determining public sector performance. Under ideal circumstances, we would expect the regression results to reveal a positive relationship between these three main exogenous variables and MDG outcomes (i.e., sectoral outcomes are improved by greater sectoral spending; when more of the sectoral resources are spent at the local level; and when the public sector is more effective).

In addition to the specification in Equation 1 above, which restricts the impact of all local public sector spending on development outcomes to be the same, the empirical model will also be estimated in unrestricted form, which considers the impact of devolved local public expenditures, deconcentrated local public expenditures and other local public expenditures separately.

Before proceeding, it should be noted that engaging in regression analysis with such a small data sample (29 observations) is generally ill-advised. This point should be taken into account in the interpretation of the results. Even though the empirical results should be interpreted with caution, the multivariate analysis sheds considerable light on the inter-relationship between local-level sectoral spending and development outcomes in health and education.

### Dependent variables

Since progress on sectoral development objectives is not easy to measure using a single indicator, we estimate the empirical model twice for each sector, based on two different sector-specific MDG indicators as the dependent variable. All development indicators are drawn from the official set of Millennium Development Goals indicators (UN, 2014). The dependent variables are measured as the nominal value of the relevant MDG performance indicator for 2010, or the year closest to 2010.<sup>24</sup> Descriptive statistics for the dependent variables (as well as for the independent variables) are presented in Table 1 below.

**Table 1: Descriptive Statistics**

Variable	Average	Standard Deviation	Coef. of Variation	Minimum	Maximum
<b>Health sector</b>					
U5MR (MDG 4.1)	72.6	46.3	0.638	2.3	188.8
Attended Births (MDG 5.2)	66.4	23.2	0.349	10.0	99.9
Total Local Health Exp.	79.0	16.2	0.206	25.8	99.1
Devolved Health Exp.	26.3	29.9	1.138	0.0	98.5
Deconcentr. Health Exp.	11.4	21.2	1.860	0.0	87.1
Other Local Health Exp.	41.3	27.9	0.675	0.6	94.8
Health Sector Exp. / GDP	2.3	1.2	0.533	0.9	5.7
<b>Education sector</b>					
Literacy Rate (MDG 2.3)	79.7	17.9	0.224	39.3	99.5
Net Enrollment (MDG 2.1)	85.7	13.2	0.154	54.2	100.0
Total Local Education Exp.	84.7	12.6	0.149	52.5	99.2
Devolved Education Exp.	30.7	31.2	1.018	0.0	90.6
Deconcentr. Education Exp.	17.4	29.0	1.668	0.0	85.5
Other Local Education Exp.	36.6	30.8	0.841	0.0	94.5
Education Sector Exp. / GDP	4.9	2.1	0.430	1.7	9.8
<b>Other variables</b>					
GDP (per capita)	2.4	2.9	1.199	0.2	12.6
Government Effectiveness	-0.5	0.4	-0.901	-1.2	0.5

For the health sector, the first outcome measure used is the under-five mortality rate per 1000 live births (U5MR), which is formally referred to as MDG Indicator 4.1. Although this indicator focuses exclusively on the health status of the under-five population, the U5MR is commonly used as a comparative indicator for overall health outcomes for a country as a whole. Consistent with our uni-dimensional analysis in Figure 5, if our implicit hypothesis about service delivery localization is correct, then we would expect to see a negative relationship between local public sector spending and the U5MR.

<sup>24</sup> An alternate specification would be to measure the dependent variable as the change in the nominal value of the indicator from 2000-2010, and to include the lagged value of the dependent variable (for 2000) as an independent variable. This specification is more sensitive, as it exclusively measures the impact of decentralization on the changes in development outcomes over the past ten years. Due to the small sample size, we decided to rely on the more robust specification of the dependent variable.

A disadvantage of relying on a general outcome indicator is that we expect the U5MR in any country to be influenced not only by the public provision of health services, but by a wide range of other factors, some of which may be beyond the control of the public sector. For instance, under-five mortality is likely influenced by a country's income level (which, among others, may serve as a proxy for private spending on health services), as well as by other factors, such as access to improved drinking water. In order to examine the more direct link between public sector structure and health *outputs* (as opposed to health *outcomes*), we also estimate our empirical model using the proportion of births attended by skilled health personnel (MDG indicator 5.2) as a dependent variable. Although the health *outcome* indicator (U5MR) is more closely aligned with the country's service delivery and development objectives, we would expect that the public sector has more direct control over the *output* indicator (attended births).<sup>25</sup>

Similarly, we estimate the empirical model for the education sector twice: once using an *outcome* indicator (the literacy rate for women and men, age 15-24; MDG Indicator 2.3) and once using a public sector *output* indicator (the net enrolment ratio in primary education; MDG Indicator 2.1).

#### Independent variables

**Localization of public sector spending.** In order to test our hypothesis whether greater localized spending improves public services and sectoral development outcomes, the first independent variable included in the restricted empirical model is *Total Local Sectoral Expenditure*, which is defined as total localized sectoral expenditures (regardless of type) specified as a percent of total sector expenditures. *A priori*, we would expect this variable to have a positive impact on the dependent variables (or in the case of U5MR, a negative impact).

In the unrestricted model, *Total Local Sectoral Expenditure* is replaced with three more precise indicators of localized spending, notable *Devolved Sectoral Expenditure*, *Deconcentrated Sectoral Expenditure*, and *Other Local Sectoral Expenditure*. Rather than treating all localized spending the same, the unrestricted model will reveal whether different types of localized spending tend to have different impacts on development outcomes.

**Sectoral spending.** Sector spending is included in the model as the total amount of public spending on the health or education sector, respectively, expressed as a percentage of GDP. *A priori*, one would expect to find a positive impact from great spending on sectoral outputs and outcomes. However, if governments tend to increase spending on a sector in response to poor sectoral performance, then the relationship between sectoral performance and sectoral spending would be endogenous and we might find a negative relationship between these two variables.<sup>26</sup>

**Government effectiveness.** Holding equal the level and vertical composition of public spending, more effective public sectors should be able to achieve better sectoral outcomes. As a result, we control for

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<sup>25</sup> We might therefore expect different factors to influence health outcomes versus health outputs. Greater spending on drugs or medical supplies (which are typically procured centrally) may be a factor in improving health outcomes, whereas the number of births attended by qualified health staff is likely to be influenced strongly by the efficient distribution and management of localized health staff.

<sup>26</sup> There are numerous within-country studies (for instance, within the United States), that find a negative relationship between school- or local-level expenditures and education performance.

the degree of government effectiveness based on the World Bank's World-wide Governance Indicators.<sup>27</sup>

**Per Capita GDP.** As noted earlier, there are numerous reasons to suspect that higher (per capita) GDP results in better service delivery outcomes, whether as a result of greater private (household) spending on health and education, or as a result of the stronger demand for more responsive and inclusive public services in wealthier countries. Per capita GDP (in thousands of US Dollars) is computed based on GDP data drawn from the World Bank's World Development Indicators.

**Other potential exogenous variables.** Due to the complex interrelationships between public service provision and development outcomes, there are many exogenous variables that could potentially impact sectoral development result in health and education. The small size of the data set, however, limits our ability to include all potentially relevant independent variable into a regression model and expect any meaningful indication of their respective relevance and their relative significance. Given that the current empirical analysis represents a first attempt at a different way of looking at local public sector expenditures, future analysis may explore different model specifications based on some of these considerations.<sup>28</sup>

#### Empirical results

Based on the empirical model developed above, Table 2 presents the results for the first four empirical models, which aim to identify the determinants of country-level health outcomes and answer the question: does greater localized spending improve health results? Further below, Table 3 presents the empirical results for the second set of empirical models, which addresses the same issues for public education services. As already noted (and discussed further below), these results should be interpreted with caution due to the small size of the data sample.

**Empirical results for health.** In exploring the determinants of country-level health outcomes, Table 2 presents the results of four different empirical models. The first two regression models consider localized health spending in aggregate, thus restricting the impact of any localized spending to be the same. The latter two models estimate the impact of localized health spending by type of local spending (i.e., unrestricted models). The models are estimated using ordinary least squares regressions; t-statistics are presented in parenthesis and parameter estimates that are statistically significant (with a 10 percent level of confidence) are indicated in bold.

The first empirical observation is that the empirical models in Table 2 have reasonable explanatory power, as judged by their Coefficient of Determination ( $R^2$ ). This is true for both dependent variables (U5MR as well as the share of attended births).

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<sup>27</sup> This variable presents the potential for simultaneity bias and multicollinearity: preliminary analysis by Boex (2012) found a relatively strong correlation between the relative level of local public sector spending and government effectiveness. In the current sample, Government Effectiveness and per capita GDP are strongly correlated ( $r=0.698$ ).

<sup>28</sup> The empirical results presented here are in line with the methodology developed prior to the data collection process (DELOG/UI, 2013). Other specifications of the empirical model were considered during earlier stages of the study (not further presented here); exogenous variables which were considered for inclusion in the model included population density and the urbanization rate; the degree of income inequality; the degree of political representation and civil liberties; and the degree of central government control over local sectoral spending.

A second empirical finding from the multivariate analysis presented in Table 2 is that the degree of localization of health sector spending does not appear to have a significant impact on health outcomes. While an increase in the share of localized spending does seem to have a negative impact on under-five mortality (in model 1), the result is not statistically significant. It further appears (counter-intuitively) that greater localized health spending may lead to a *smaller* number of attended births (model 2), but again, that relationship is not statistically significant. Models 3 and 4 reveal the same patterns without any of the relevant parameter estimates attaining statistical significance.

**Table 2. Determinants of country-level health outcomes, 2010**

Dependent variable	(1) U5MR	(2) Attended births		(3) U5MR	(4) Attended births
Local spending (% of sector)	-0.44 (-0.871)	-0.33 (-1.482)		-	-
Devolved spending (% of sector)	-	-		-0.41 (-0.733)	-0.31 (-1.292)
Deconcentr. spending (% of sector)	-	-		-0.39 (-0.615)	-0.16 (-0.608)
Other local spending (% of sector)	-	-		-0.48 (-0.867)	-0.39 (-1.635)
Sector spending (% of GDP)	4.76 (0.675)	3.48 (1.116)		5.12 (0.625)	3.36 (0.96)
Government effectiveness	-41.67 (-1.61)	10.86 (0.949)		-41.88 (-1.539)	11.29 (0.97)
Per Capita GDP	-4.34 (-1.183)	<b>4.33</b> <b>(2.662)</b>		-4.51 (-1.108)	<b>4.32</b> <b>(2.483)</b>
Intercept	<b>88.25</b> <b>(1.958)</b>	<b>79.38</b> <b>(3.981)</b>		<b>87.87</b> <b>(1.863)</b>	<b>79.6</b> <b>(3.948)</b>
R <sup>2</sup>	<b>0.385</b>	<b>0.518</b>		<b>0.387</b>	<b>0.552</b>

The level of sectoral spending (total public health spending as a percent of GDP) does not appear to have a statistically significant impact on health outcomes. In fact, Models 1 and 3, the parameter estimates actually bear the ‘wrong’ sign. As noted above, one possibility is that poor health outcomes actually *cause* governments to spend more on health, without necessarily achieving proportionate improvements in health outcomes.

Next, government effectiveness is consistently associated with better health outcomes (lower under-five mortality and higher birth attendance), although the parameter estimate does not attain statistically significant for any of the models.

Finally, per capita GDP seems to be consistently associated with better health outcomes (lower under-five mortality and higher birth attendance). The parameter estimates consistently have the right sign and are statistically significant for two out of the four regression models.<sup>29</sup> This finding is consistent with previous empirical findings in the health literature that the demand for (private as well as public) health services is strongly positively associated with GDP or household income, although the role of an indirect impact between higher GDP and greater public sector effectiveness cannot be discounted at this stage.

<sup>29</sup> Multicollinearity may be suppressing the effect of GDP on U5MR. When the model is estimated without Government Effectiveness, per capita GDP becomes statistically significant with the right sign in all four models.



Taken together, the results presented in Table 2 do not seem to suggest that greater localization of public health expenditures—or in fact, greater overall public health spending—has a terribly convincing impact on public health outcomes. Instead, the country's income level appears to be an important and consistent determinant of health outcomes after taking into account the level and composition of public health expenditure patterns.

**Empirical results for education.** Although Table 3 (presenting the results for the education sector) is structured in exactly the same manner as Table 2, the results presented in Table 2 reveal a substantially different pattern in the determinants of education outcomes. One major difference is that whereas the empirical models exploring the determinants of literacy rates (Models 1 and 3) have reasonable explanatory power, the same cannot be said for the models analyzing net enrolment (Models 2 and 4).

**Table 3. Determinants of country-level education outcomes, 2010**

Dependent variable	(1) Literacy	(2) Net enrolment		(3) Literacy	(4) Net enrolment
Local spending (% of sector)	<b>0.40</b> (1.872)	0.16 (0.815)		-	-
Devolved spending (% of sector)	-	-		<b>0.43</b> (1.817)	0.21 (0.962)
Deconcentr. spending (% of sector)	-	-		<b>0.41</b> (1.717)	0.21 (0.985)
Other local spending (% of sector)	-	-		<b>0.38</b> (1.716)	0.13 (0.658)
Sector spending (% of GDP)	-2.19 (-1.584)	<b>-2.3</b> (-1.800)		-1.97 (-1.255)	-2.08 (-1.451)
Government effectiveness	14.55 (1.52)	7.81 (0.880)		13.22 (1.245)	6.30 (0.650)
Per Capita GDP	2.02 (1.581)	0.59 (0.502)		1.94 (1.442)	0.50 (0.407)
Intercept	<b>58.59</b> (2.723)	<b>85.45</b> (4.285)		<b>56.40</b> (2.442)	<b>82.45</b> (3.907)
R <sup>2</sup>	<b>0.506</b>	<b>0.218</b>		<b>0.509</b>	<b>0.246</b>

More importantly, in contrast to the results for the health sector, the empirical results in Table 3 are strongly suggestive that the degree of localization of public education spending is an important determinant in achieving positive education outcomes: higher local spending is found to have a positive and statistically significant impact on literacy rates. In other words: more localized spending seems to result in better education outcomes. In fact, in model (3), each of three types of LPS spending is found to have a statistically significant impact on the literacy rate. However, it does not appear that different types of local education spending have substantially different impacts on education outcomes as the parameter estimates for all three variables fall closely around 0.40.

The fact that the parameter estimates for localized expenditures in Models 2 and 4 (analyzing net student enrolment) are positive but not statistically significant (especially in combination with the much lower R<sup>2</sup>) may suggest that higher enrolment is possibly attained or determined by factors unrelated to the composition of public spending. In addition, we should note that the level of *schooling* (i.e., achieving a high enrolment ratio) is not necessarily evidence of *learning* (e.g., Pritchett, 2013). Our findings seem to be consistent with the observation in the education sector in many countries that

whereas reported enrolment may have increased in recent years (after the introduction of the MDGs), the general quality of education being provided has been low.

Parameter estimates for the total level of education spending (defined as total education spending as a percent of GDP) are consistently negative, but generally not statistically significant. This again seems to suggest that higher education spending is actually associated with worse education outcomes. We speculated above that this might be reflective of endogeneity, as poorer national performance on global education indicators may result in increased education spending.

Finally, the parameter estimates for government effectiveness and per capita GDP are consistently positive in the education models, but do not attain statistical significance in any of the equations.

### Discussion of results

What should we take away from these empirical results? In interpreting these results, it is important to bear in mind that the empirical model described above is the first attempt of its kind to determine the impact of local public sector expenditures and institutions on global development outcomes. While the methodology builds on previous empirical models of public sector performance in health and education (e.g., Kamiya, 2010), the methodology is not free from the same limitations encountered by earlier attempts to model public sector performance. It is important to recognize the constraints and caveats of the empirical model up front, as well as the limitations due to the size and nature of the data set (see Box below).

#### **Box: Potential limitations of the empirical approach**

**Limitations due to nature and size of data set.** Because detailed local public sector financial data are extremely difficult to collect for multiple years, we are limited to estimating a cross-section data set of 29 countries for 2010 rather than a larger panel data set covering multiple years. This data limitation prevents us from estimating a first-difference regression model, which regresses changes in the dependent variable on changes in the independent variables. A larger data set would allow more extensive empirical exploration.

**Impact of time lags.** A related limitation of the empirical model is that a country's performance, as measured by global development indicators (such as the literacy rate for 15-24 year olds or the under-five mortality rate), is not merely determined by the current year's resource allocation pattern or institutions, but rather, is determined as the cumulative effect of effective service delivery over a number of years. However, the difficulty in collecting previous years' data on local public sector finances and institutions prevents us from capturing the cumulative impact of previous years. Instead, the expenditure pattern and institutional arrangements within the local public sector for the last year serves as a proxy for the intergovernmental structure in previous years. This is not an unreasonable assumption, given that countries' systems of intergovernmental (fiscal) relations tend to be quite stable over time.

**Potential omission of exogenous variables.** Other issues need to be taken into consideration during the estimation of the empirical model as well. For instance, it is widely agreed that the public sector's performance (in terms of achieving poverty reduction outcomes) is not only determined by public sector characteristics, but also by socio-economic characteristics of the population being served. For instance, higher levels of household income and education have a substantial impact on health care outcomes (Vos, 2008). It is not always possible to include all such exogenous factors as independent variables in the empirical model (for instance, household spending on education and health services is hard to measure across countries), which could potentially lead to omitted variable bias in the estimation.

**Direction of causality.** As already noted in the previous section, another potential concern with the empirical approach is driven by the expected causality of the relationship being estimated. The empirical model specified above assumes that global development outcomes are determined by public sector spending, but that public sector spending levels for education or health care (or the way in which these resources are distributed between the central public sector and the local public sector) in turn are not influenced by the public sector's performance on these indicators. Although our sample size is too small to empirically test for and/or address the direction of causality, this issue should be taken into account in the interpretation of the results.

**Accuracy of measuring local public sector expenditures.** A final concern to be noted is the definition and measurement of the local public sector itself. Although relying on the broader definition of local public sector expenditures is an improvement over the narrow definition of local government expenditures, measuring the share of local public expenditures that reaches the front lines is likely to be easier in some countries—for instance, in countries with only one local government level—when compared to other countries (e.g. countries with one or more intermediate government levels).

The inherent limitations of the empirical analysis notwithstanding, the initial empirical results presented here provide interesting insights into the determinants of sectoral development outcomes in health and education, and the possible role of decentralization and localization of the public sector. Two questions jump out. First, why would the level of *localized* spending not matter at all, as suggested by the health sector results? And, second, what might explain the apparent lack of differential impact of different types of decentralization and localization in the education sector?

The finding that more (localized) spending cannot be shown to have a positive impact on sectoral development indicators in health might be disconcerting to some, and may point to the complex set of relationships with which public sector resources are transformed from inputs into public health services (outputs), and ultimately, improved health outcomes. For instance, greater spending on health worker salaries will not result in improved sectoral outcomes if physicians and health workers lack access to critical medical supplies, or when the health workers themselves are simply absent from their health facilities (Chaudhury et al, 2006). As such, it may simply be the case that the total amount of localized health spending is the wrong service delivery attribute to measure. Due to small size of the data set and the incomplete manner with which the breakdown of sectoral expenditure data was reported (particularly, the difficulty in identifying spending on medical supplies), we are unable to explore this issue much further at this stage.

It is likely that the public provision of health care services has a number of unique characteristics that sets it apart from other public goods and services provided by the public sector (Batley and Harris, 2014; Harris, Batley and Wales, 2014). Specific service characteristics may influence the incentives and accountability of the actors involved in service provision (including elected politicians, policymakers, providers, as well as potential and actual users). In particular, service-specific characteristics of health services limit the likelihood of competitive provision; limit the access to (or enhance potential exclusion from) services; reduce the “monitorability” of services by policymakers and managers; and reduce or enhance users’ capacity to organize demands from public service delivery units or public service providers. In other words, regardless which level or tier of government is responsible for the provision of

health services, or regardless how much is spent, it is difficult to hold public health providers accountable for the effective delivery of health services.<sup>30</sup>

This points to a need in the decentralization and local governance Community of Practice and in the global health community—as well as in other sectors—to better understand the very specific relationships between localized sectoral outcomes and the exact impact of contributions made by actors at different levels and through different vertical funding mechanisms. Such research on local health systems (and other local sectoral systems) is best conducted by analyzing variations in health systems within—rather than between—different countries.

Second, to the extent that localized public spending contributes in a positive way to improved service delivery outcomes, what might explain the apparent lack of differential impact of different types of decentralization and localization? In other words, why does it appear that there is no discernible difference in impact between devolved education expenditures and deconcentrated (or even centrally-controlled) education expenditures?

One possible answer is found in the nature of devolution in many developing and transition countries. As already noted in Section 5, the country survey responses suggest that, even when local governments are effectively assigned the responsibility to deliver sectoral public services, local governments in most countries have little or no control over local sectoral resources in health and education. This lack of local government discretion is particularly true for the management of human resources and the associated wage expenditures: it is the norm (rather than the exception) for central authorities to determine the number and composition of local sectoral staff positions; to determine the wage rates and allowances paid to local staff; and to control local hiring, firing and promotion. Similarly, to the extent that non-wage recurrent expenditures and development expenditures are funded by earmarked grants, devolved local governments may have little or no discretion over this spending. In other words, despite the fact that local governments are led by elected councils and otherwise may fulfill the characteristics of semi-autonomous local government entities, in practice, local governments rarely exercise any greater discretion or control over sectoral services than deconcentrated administrative entities. If this is indeed the case, then we ought not to expect any differential impact of devolved versus deconcentrated spending on sectoral outcomes.<sup>31</sup>

#### Potential impact of localization on development outcomes

Although the limitations of the current empirical analysis are considerable, they nonetheless guide us with regard to the final research objective for this study, which is to determine the potential for improving specific sector development outcomes in education and health if more funds are channeled through the local public sector. Given the anomalous results for the health sector, let us focus on addressing this question in the education sector.

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<sup>30</sup> This point was recently highlighted in the United States when it was uncovered that at least 40 United States Armed Forces veterans had died while awaiting care at a government-run Veterans Health Administration facility in Phoenix, Arizona. An internal audit found that across the Veterans Health system, more than 120,000 veterans were left waiting or never got care and that pressures were placed on schedulers to use unofficial lists or engage in inappropriate practices to make patient waiting times appear more favorable.

<sup>31</sup> The accurate measurement of local discretion over devolved local expenditures (rather than merely the measurement of the amount of devolved expenditures) is the subject of a relatively extensive—but as of yet, unresolved—literature.

As an exploratory preview for answering this question, let us for the moment make three explicit and heroic assumptions, namely (a) that the relationship between local public sector spending and sectoral outcomes is strictly causal; (b) that all types of local-level spending have the same impact on sectoral outcomes; and (c) that the current sample of 29 countries is somehow representative of a typical developing or transitional country. Then, how would an improvement in the vertical allocation of sectoral resources impact sectoral outcomes?<sup>32</sup> The sole purpose of this exercise is to determine the rough scale of the impact that a vertical reallocation of resources might have on sectoral outcomes.

Next, based on the empirical results in Table 3 (Model 1), let us stipulate that under the heroic assumptions noted above, a one-percentage point increase in local-level education spending would result in a marginal 0.40 percent increase in the literacy rate.

It would be unrealistic to assume that a country should spend 100 percent of its education resources in a localized manner; we acknowledge that there is a need for spending on central government overhead functions in the education sector. For the sake of argument, let us assume that the share of central public sector spending on “central government overhead” in the education sector should not exceed 5 percent of sectoral spending. Strictly based on the sample average (for the current sample of countries), this means that in an “average” developing country, local-level education spending can be increased by close to 10 percentage points (from an average of 84.7 percent to 95 percent).

These projections would suggest that simply through vertical reallocation of sectoral resources (i.e., by spending existing resources in a more localized manner, without adding more resources), literacy rates in a “typical” developing country could be improved by about 4 percentage points. This is definitely a non-trivial impact given the sample average literacy rate of 79.7 percent. Although this calculation is highly speculative, even if the true impact of the localization of education resources is a fraction of the guesstimates presented here, the nontrivial size of the estimates encourages further investigation.

## 8. Preliminary lessons and next steps

The initial empirical results presented above are a promising step in the ongoing process of understanding the role of central, regional, and local governments in delivering on the promises of development. While the analyses in this report should be considered preliminary, the data collected so far represent a substantial improvement of our understanding of the vertical composition of the health and education expenditures, as well as the local public sector’s role in achieving development outcomes in health and education.

While the study reflects a major improvement over the existing research (which is exclusively based on devolved expenditure patterns), the generalizability of the results is seriously constrained by the cross-country nature of the analysis (which compares countries with vastly different experiences), the relatively small sample size, and the fact that data are only available for a single year. As such, a critical next step will be to continue to collect data from additional countries in order to expand the data set to the point at which more sophisticated analyses will become feasible. While inclusion of non-devolved local public sector expenditures in the analysis is already a vast improvement over the current state of knowledge, future quantitative analyses will have to address lingering questions surrounding causality

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<sup>32</sup> Other standard assumptions (such as linearity and the assumed absence of selection bias or omitted variable bias) are implied.

versus correlation. Subsequent studies may further analyze whether (and/or under what conditions) different types of local public sector spending have differential impacts on sectoral outcomes in health and education. In addition, while the present study focused on data from a single year (2010) in order to ensure comparability across countries, future research will be in a position to examine the lagged impact of localized resources on development outcomes.

Beyond further analysis of cross-country patterns, the evidence basis on how best to localize public services and development outcomes needs to be complemented by different types of analysis. For instance, research focusing on one or a smaller subset of countries could assess the impact of “big bang” decentralization efforts such as those of Indonesia and Kenya. Did these major reforms lead to increased localization of national resources in priority sectors? And, if so, was that localization associated with improved outcomes on relevant indicators? Similarly, is it possible to identify the determinants of re-centralization (e.g., in Uganda), or the impact of re-centralization on development outcomes in these countries? Similarly, a series of in-depth country studies could apply the basic elements of the local public sector methodology to different local jurisdictions within a single country, in order to analyze the impact of resource patterns, governance, administrative control and accountability on service delivery outcomes at the level of implementation. In-depth analyses of how political, administrative, and financial institutions differ between sectors within a single country could shed further light on the impact of heterogeneity of institutions on service delivery outcomes.

Nonetheless, this study already bears some clear and immediate policy implications:

Stepping out of the devolution box: focusing on the whole local public sector. Most importantly, the current study finds that focusing on local governments alone gives a very incomplete picture of localized service delivery. Therefore, researchers and practitioners should acknowledge that in pursuit of the next generation of global development goals, it does not suffice to pursue decentralization and local governance reform only for its merits in strengthening democratic institutions, responsiveness and accountability. In addition, decentralization and localization should be pursued as an important element for achieving improved service delivery and sustainable development outcomes in the context of the post-2015 agenda. This requires the Community of Practice on decentralization and local governance to step out of its “devolution box” to explore the various other mechanisms through which the central public sector interacts with the people at the local level.

A first step in this regard is to “measure what we treasure” by expanding efforts to measure and benchmark the different ways in which public services are localized across and within countries. To the extent that equitable access to effective localized services (both within and across local jurisdictions) is a focus of the post-2015 sustainable development agenda, the monitoring framework for the post-2015 agenda should actively and systematically capture development outcomes at the local level. Having a better understanding of where localized services delivery efforts have achieved better development outcomes will help identify and resolve underlying inequities as well as help target the efforts of the global development community.

Working with sectors to explore the vertical dimension of localized service delivery. Similarly, achieving an effective process for localizing development outcomes requires sectoral line ministry officials and the their counterparts within the global development community to recognize the role that local governments and other local entities play in translating central policy ambitions within each sector into the actual delivery of public service, which invariably takes place at the local level. It is unlikely that equitable and sustainable development can be achieved by circumventing local public sector institutions

through parallel mechanisms. Decentralization and local governance practitioners should thus work more closely with their sectoral colleagues (and vice versa) to advance a more nuanced understanding of the vertical dimension of localized service delivery, including the recognition that decentralization requires more than merely involving lower-level staff in bottom-up sectoral planning, and that community involvement only results in meaningful participation and accountability when local bodies and officials are themselves empowered over the services they are tasked to deliver. Since each sector is distinct, local governance experts and sectoral experts should work together to identify how discretion, incentives and accountability matter in order to strengthen each vertical link in the sectoral chain in order for central policy goals to be translated into efficient and equitable services on the ground.

Informing the policy debate at the country level. The initial discussion on the localization of development efforts has taken place in the context of the formulation of the post-2015 agenda. However, this discussion transcends the way in which development interventions are planned; instead, how to best localize public services is a fundamental policy question that needs to be answered and resolved in each and every country. Given the potentially significant impact of local public sector spending on sectoral outcomes in health and education, policy makers in developing countries need to engage in an informed debate on how best to localize health and education services. This will require, on a country-by-country basis, sectoral policy discussions in health, education, and potentially other sectors about the degree to which sectoral resources are localized in each sector, and the effectiveness of the vertical mechanisms used to make sure that national policy goals are translated into local policy outcomes. Such policy discussions are best informed by a detailed analysis of the vertical institutional structures within each sector, and a detailed analysis of the degree to which local sectoral officials and front-line service staff have the access to the necessary resources, as well as the right amount of discretion, incentives and accountability to serve their communities. In other words, what is the state of localization of health and education services in each country?

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