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Empirical Studies of an Approach to Decentralization: "Decision Space" in Decentralized Health Systems

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Abstract

The author's 1998 article on decentralization focused on the element of choice as the major issue of decentralization – granting authority and responsibility for choice to administrative and elected officials at peripheral levels of organizations and governments – and introduced the concept of "decision space" to describe the range of choice allowed to local authorities for different functions (financing, service delivery, human resources, governance). This approach was based largely on principal agent theory focusing on how central authorities can circumscribe local choice by establishing rules over choice and by providing incentives for making choices that would achieve central objectives.

This chapter reviews this approach and discusses its evolution in empirical studies first focusing on defining the formal decision space (in Ghana, Uganda, Zambia and Philippines) and then expanding to surveys that assess the actual or informal decision space that officials reported they were able to exercise (Nicaragua and Morocco).

In a more recent phase of research, the author has now expanded the scope of study to examine two additional concepts – institutional capacity to make good decisions and accountability to local elected officials – and the interaction among decision-space, capacity and accountability. Preliminary findings on studies using this approach in Pakistan and India will be presented.

In conclusion, the chapter will review the importance of refined definitions of decentralization to assessing what form will be most effective in achieving policy makers' objectives.

1. An Innovative Approach to Decentralization

One of the central problems of the analysis of decentralization has been the difficulty of defining the complex elements that make up the concept. Much of the theory of decentralization does not disaggregate the concept sufficiently to help answer the policy question of whether decentralization is a good way to achieve policy objectives.[1] Rather, most analysts present rational choice or other ideologically bound arguments for why local choice is likely to be a good, or bad, way to achieve objectives or to respond to local decisions about priorities. In an attempt to address this issue, in the late 1990's the author reviewed different theories and evidence on decentralization and proposed an approach that focuses on the amount of choice that local officials have over a series of different functions and applied the concept to the case of the health system in Colombia.[2] I reviewed the major approaches to decentralization including the public administration approach, and local public choice, social capital and principal agent theories and proposed a more complex approach, based in part on principal agent theory, that describes decentralization as a set of rules about local choice and incentives that the central authorities use to encourage local decision makers to make choices that are likely to achieve the objectives of the central authorities. The approach defined the "decision space" or local discretion allowed by the central government for functions and sub-functions about financing, service delivery, human resources and governance.

This approach has several advantages. It proposes that decentralization is fundamentally about shifting choice from central authorities to local authorities.[3] The choice allowed is not a single block but rather a range of discretion allowed over different functions. Therefore, some systems will allow more choice over budgets and financing while others will allow more choice over hiring and firing, and other functions. Furthermore, as systems change, the range of choice may change for some functions and not for others. This is a more realistic way of viewing the complexity of real experience than the usual dichotomous descriptions in which systems are defined as decentralized or centralized (or in some cases, recentralizing).[4] However, the objective of defining decentralization in this way is not just for more complex typologizing. It proposes specific definitions of what the range of choice might be – using health sector functions

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[1] Channa, A. and J.P. Faguet. 2012. "Decentralization of Health and Education in Developing Countries: A Quality-Adjusted Review of the Empirical Literature." LSE/STICERD Working Paper No. EOPP 38.
[2] Thomas Bossert (1998), "Analyzing the decentralization of health in developing countries: decision space, innovation and performance." *Social Science and Medicine* 47: 1513-27.
[3] Faguet, J.P. and F.B. Wietzke. 2006. "Social Funds and Decentralization: Optimal Institutional Design." *Public Administration and Development*, 26(4): 303-315.
[4] There are other functional definitions that have been developed both generally and specifically in the health sector. For general functional definitions see: Gershberg, A. I. (1998). Decentralisation, Recentralisation and Performance Accountability: Building an Operationally Useful Framework for Analysis. *Development Policy Review,* 16(4), 405. For specific functional definitions for health see: Peckham, S., Exworthy, M., Powell, M., & Greener, I. A. N. (2008). Decentralizing health services in the UK: a new conceptual framework. *Public Administration,* 86(2), 559-580. See also Paul L. Hutchinson and Anne K. LaFond.(September 2004) Monitoring and Evaluation of Decentralization Reforms in Developing Country Health Sectors. Bethesda, MD: The Partners for Health Reform*plus* Project, Abt Associates Inc.

as an example – with the hope that defining empirically the complex types of decision space, we could then test whether more local choice for some functions would result in better health system performance. This last objective has proven to be the most challenging.

This chapter surveys the theoretical and empirical developments in the study of decision space by our team at Harvard School of Public Health, as they evolved since the first studies we implemented to the present. It first reviews comparative desk study of formal decision space in four countries to demonstrate the utility of the framework and evaluate the impact of decentralization in Zambia, Chile, Bolivia and Colombia; these were the first assessments of the impact of decentralization on the equity of allocations of financial resources. A second phase was a series of empirical studies in Nicaragua and Morocco to examine the actual choices that local officials reported they made, what we called "informal decision space", which showed variations not apparent with the formal assignments of roles and responsibilities. In a third phase of research we combined assessments of informal decision space with information on the local capacities and accountability of health officials to locally elected officials in Pakistan, India and Vietnam. Finally, a comparative desk analysis of decentralization using a modified decision space framework revisited the issues of decision space, capacity and accountability in a broader range of countries. This review is followed by recommendations for future policies on decentralization and a call for additional research in this topic.

2. Initial Empirical Applications of the "Decision Space" Approach

Using the "decision space" approach the author, along with colleagues and students at Harvard School of Public Health, began a series of studies to analyze empirical cases of decentralization. We first applied the framework to a comparative analysis of secondary sources on four countries that in the early 2000's had reputations for being decentralized: Ghana, Zambia Uganda, and the Philippines.[5] The study produced a comparative "map" of decision space (Table 1) classifying (based on criteria established in the original *Social Science and Medicine* article[6]) the different degrees of formal choice for each function for each country and demonstrating considerable variation among countries and among functions.

[5] Thomas J. Bossert and Joel C. Beauvais, Decentralization of health systems in Ghana, Zambia, Uganda and the Philippines: a comparative analysis of decision space. *Health Policy and Planning* 17(1): 14-31.
[6] The scores for "narrow", "moderate" and "wide" varied for each function. For instance, for revenue in financing, the greater degree of local financing constituted wider decision space; for salaries for human resources "narrow" would be defined by national civil service rules, "wide" would not limit local choice on salaries and "moderate" would be a limited range of choice about salaries.

Table 1: Comparative Decision Space for Ghana, Zambia, Uganda, Philippines

Functions	Range of Choice		
	Narrow	Moderate	Wide
Financing			
Sources of Revenue	Zambia	Ghana Uganda	Philippines
Expenditures		All Four	
Income from Fees		Ghana, Zambia Uganda	Philippines
Service Organization			
Hospital Autonomy	Ghana Zambia	Uganda	Philippines
Insurance Plans	Ghana Uganda		Zambia Philippines
Payment Mechanisms	Ghana Uganda	Philippines	Zambia
Contracts with Private Providers		Ghana Zambia Philippines	Uganda
Human Resources:			
Salaries	All Four		
Contracts	Ghana	Philippines	Zambia Uganda
Civil Service	Ghana	Zambia Uganda Philippines	
Access Rules	Ghana	Zambia Uganda Philippines	
Governance			
Local Government	Ghana Zambia		Uganda Philippines
Facility Boards	All Four		

Health Offices	Ghana Philippines	Zambia Uganda	
Community Participation	Ghana Uganda	Zambia Philippines	
Country Totals			
Ghana	11	4	0
Zambia	5	7	3
Uganda	5	7	3
Philippines	3	7	5

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However, a review of the available evidence did not allow us to determine the relationship between decision space and performance. While there was evidence of differences in financing, service delivery and human resources, attributing these differences to the degree of decentralization was not possible. In the end this study showed that the approach could distinguish the different degrees of decision space among the four countries and showed how complex the empirical problem of assessing impact on performance was.

In a follow up study of Zambia, for which we were able to do primary research, we analyzed data from before and after decentralization and found positive effects on allocation of resources to and within districts based on a strong application of a well designed formula based on population size and hospital beds, and on carefully monitored expenditures by the Central Board of health.[7] Wealthier districts were, however, able to mobilize more resources than the poorer districts, suggesting that inequities would widen in the future. The study found no distinguishable difference in health performance after decentralization as measured by utilization of health services, immunization coverage and family planning activities.

During the early 2000's we also studied three countries in Latin America which had a reputation for having the most decentralized health systems at the time: Chile, Bolivia, and Colombia.[8] The study found that in the Latin American cases, as in the African and Asian cases, there was considerable variation in decision space among countries and among functions within countries. It also found that over time, decision space was reduced for some key functions – such as human resources salaries and earmarking of financial allocations. Even in these countries with a reputation for

[7] Thomas Bossert, Mukosha Bona Chitah and Diana Bowser. "Decentralization in Zambia: Resource Allocation and District Performance." *Health Policy and Planning* 18 (4): 3587-669.
[8] Thomas Bossert, Osvaldo Larrañaga, and Fernando Ruiz Meir. "Decentralization of health systems in Latin America." *Pan American Journal of Public Health* Vol. 8, Nos. 1/2: 84-92. Faguet, J.P. 2014. "Can Sub-National Autonomy Strengthen Democracy in Bolivia?" *Publius: The Journal of Federalism*, 44(1): 51-81; and Faguet, J.P. and F. Sánchez. 2014. "Decentralization and Access to Social Services in Colombia." *Public Choice*, 160(1-2): 227-249 study the effects of decentralization in Bolivia and Colombia in detail.

decentralization, many functions remained highly centralized (in decision space terms, "narrow" choice for local officials).

This study also found the clearest evidence that the process of decentralization had, surprisingly, led to increased equity of allocations.[9] In the Chile and Colombian cases for which the financial data was most reliable, the study found that over time since decentralization the gap between the wealthiest municipalities and the poorest was significantly reduced – both for the intergovernmental transfers from the central government and for the locally generated tax revenues assigned to health (see Table 2). While the intergovernmental transfers in Colombia, for instance, had favored the wealthiest quintile of municipalities with six times higher per capita allocations before decentralization, the application of a population based formula for allocations that was imposed by decentralization legislation, resulted in almost equal allocations from the central government. The surprise was that the gap between rich and poor in terms of their own source revenues allocated to health also declined – from a difference of almost 42 times higher per capita expenditures in health to only 12 times higher. Decentralization appears to have encouraged poorer localities to take financial responsibility for health seriously, and the wealthier did not keep pace with the increases assigned by the poor. While the rich still assigned more of their local resources than did the poor, decentralization actually narrowed the gap, flying in the face of theoretical expectations.

[9] Thomas Bossert, Osvaldo Larrañaga, Ursula Giedion, Jose Arbelaez and Diana Bowser. "Decentralization and Equity of Resource Allocation: Evidence from Colombia and Chile." *Bulletin of World Health Organization,* 2003, 81 (2) pp. 95-100
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Table 2 Colombia: Average External and Own Source Revenues per Capita by Income Decile

	1994		1995		1996		1997	
Deciles	National Funds	Own Revenues	National Funds	Own Revenues	National Funds	Own Revenues	National Funds	Own Revenues
1 poor	7.1	0.2	10.9	0.2	22.4	0.9	54.6	2.1
2	10.7	0.5	12.0	0.8	22.8	1.2	56.2	2.9
3	10.5	1.2	15.3	1.4	25.4	3.2	59.1	7.1
4	14.8	2.2	19.4	2.4	26.6	4.7	54.4	9.6
5	16.9	2.6	24.3	4.3	28.8	7.6	62.4	13.9
6	28.1	4.1	27.1	6.0	38.0	12.8	60.0	18.1
7	24.5	4.1	36.0	7.9	47.2	14.7	67.3	20.3
8	25.7	4.1	41.6	8.0	45.8	13.4	67.3	21.2
9	37.8	6.7	52.4	10.0	56.0	18.1	64.7	23.4
10 rich	43.4	8.3	58.7	14.0	52.7	21.2	64.6	25.0
Avg.	21.9	3.4	29.7	5.4	36.6	9.8	61.1	14.4
10th/1st	6.11	41.5	5.38	70.0	2.35	23.55	1.18	11.9

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This series of studies focused on the formal range of choice allowed local governments and demonstrated that the decision space approach had value in describing the full range of functions that could be decentralized to local governments. In the case of Chile and Colombia, it also lent evidence for the argument that formal decentralization could improve equity, at least equity in allocations of financial resources. However, the authors were uneasy with the limited ability to assess the actual range of choice that was exercised by local officials. Were they simply following the directives of higher officials as they had under centralized authority, or were they exercising fully the range of choice formally granted by central authorities?

3. Focus on variations within formal decision space: Informal decision space

It soon became apparent that the formal legal and regulatory rules about decision space did not really define the actual practice of officials. In interviews with officials we consistently found that some officials made more use of the range of choice they formally had while others limited their choices to earlier centralized decisions or were unaware of the range of choice they could use. In some cases, officials indeed made more choice than they were “allowed” and got away with it because of a lack of centralized monitoring or enforcement. We decided then to develop survey instruments to ask local officials what kinds of choices they actually had made in the past year. Other surveys (for instance the original Decentralization Mapping Tool of Management Science for Health) had attempted to assess attitudes toward decentralization by local officials. These instruments however were largely open-ended or vague enough to allow for very subjective responses. It was felt that open-ended questions tended to reflect the different abilities or desires of respondents and were not as comparable as questions asking directly if they had actually made specific choices about different functions.

Developing appropriate questions for surveys of officials was tricky business, because it meant that the survey instruments would have to be developed with a group of informants who knew what choices were likely to be made in order to develop closed ended questions that would be meaningful and discriminate different degrees of choice within the country context. It meant also that we would be limited in our ability to make comparative analysis across countries with different levels of formal choice. We developed and tested these survey instruments in Nicaragua and Morocco.

The Nicaragua surveys helped define the decision space that was available in a system that had evolved with few clearly defined rules so that less was known by policy makers about what decision space was actually in practice.[10] The study of the decision space at the district (*SILAIS*) level suggested that officials had a moderate range of choice over central government funded expenditures, over their own source revenues collected at the facilities and over assignments and transfers of human resources and community participation. For other functions the central Ministry of Health defined the choices without allowing local discretion. We were not able to find relationships between decision space over these functions and any of a series of relatively reliable performance indicators. The study however did analyze funding shortages, inequities of allocation among districts, high rotation rates of human resources and made recommendations for policy changes including a "needs based" formula and longer term assignments to reduce the change in local staffing, especially of managers.

In Morocco we found that the formal decision space was generally very narrow – not unusual for former French colonies with their history of highly centralized bureaucracies – but that there was variation in the amount of decision space that the district *délégués* reported in actual practice.[11] The questions asked specifically if they made choices that were allowed and also if they needed higher approval for choices that they made whether these choices were approved to get a sense of how wide their judgment was respected by higher authorities. Those *délégues* who reported higher decision space and less rejections from superiors for choices in specific functions tended to allocate more resources to administration and training than directly to priority maternal and child health programs and immunizations. This was not seen as a positive outcome and suggested that stricter allocation monitoring was needed.

In a more specific application of decision space analysis, we were asked to do an applied research project for a USAID-funded logistics system project to assess the impact of decentralization on health logistic systems in low income countries.[12] This project gave us an opportunity to apply decision space analysis to a situation in which the project was collecting detailed measures of performance. Working with logistics system experts we were able to define 14 different logistics functions that might be decentralized – from

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[10] Thomas Bossert, Diana Bowser and Leonor Corea. *Studies of decentralization of the health system in Nicaragua: Final Report.* Harvard School of Public Health and Management Sciences for Health. September 2001.

[11] Thomas Bossert, Volcan Cakir, Diana Bowser, and Andrew Mitchell. *Morocco Decentralization Study: Summary of Preliminary Findings.* Harvard School of Public Health and John Snow Incorporated. 2003.

[12] Thomas J. Bossert, Diana M. Bowser and Johnnie K. Amenyah. "Is decentralization good for logistics systems? Evidence on essential medicine logistics in Ghana and Guatemala," *Health Policy and Planning* 2007/ 22: 73-82.

forecasting needs through to the delivery of drugs to the patient – and to develop specific questions for two different health systems: Guatemala and Ghana. At the same time we did our surveys, the project used its standardized questionnaire about the performance of the logistics system – asking questions about key issues such as stock outs, inventory methods, cold chain maintenance, etc. We were able to identify performance indicators for most of the 14 functions that could be decentralized and were able to show that some of the decentralized functions were associated with higher (and others with lower) levels of performance in both countries. We concluded that for logistics system functions there was evidence in both countries suggesting that better performance could be achieved if inventory control and logistics information systems were centralized while planning and budgeting was decentralized. Both these findings made logical sense in that allowing variation in such technically rigid functions as inventory control and information system formats would result in poor quality logistics, while local knowledge of needs and finances would strengthen planning and budgeting. In Guatemala, where an unusual form of procurement allowed local officials to procure medicines directly from producers for fixed low prices determined by a competitive national process called "open contracting." This suggests that under conditions of open contracting, more local decision making might result in better performance.

These studies of informal decision space led to the conclusion that there was a range of choice within the formal decision space that was likely to have an impact on how effective decentralization would be.[13] If some officials did not take advantage of the full range of choice, as they responded to their local conditions and situation, decentralization would not have the theoretical advantage claimed by advocates. This difference also had implications for the policy of defining decentralization in ways to promote better performance based on local decision making. However, it was also clear that there were other factors that would contribute to better performance, namely, the capacities of local administrations to design and implement health programs, and the responsiveness or accountability of health officials to local elected officials.

4. Widening the Scope of Analysis: Decision Space, Capacities and Accountability

In response to growing attention to health system strengthening and to a growing literature on governance and accountability, we decided to expand our conceptual framework to include two additional dimensions to complement our initial focus on decision space and performance.

It was clear that our earlier focus on decision space would not account for the differences in the capacities of those making decisions – in terms of personal skills and knowledge and institutional factors such as staffing patterns and funding. In addition, since many forms of decentralization imply a dual principal agent situation – health administrators respond both to the central government and to the local elected officials – a form called, in the classic literature on decentralization, "devolution" in contrast to

[13] Faguet and Ali (2009) make a similar point for Bangladesh. Faguet, J.P. and Z. Ali. 2009. "Making Reform Work: Institutions, Dispositions and the Improving Health of Bangladesh." *World Development*. 37: 208–218.

"deconcentration' within the ministry of health -- we wanted to examine the accountability of local health officials to the guidance and priorities of local elected officials.[14]

One of the critical objections to decentralization has been the argument that the skills and knowledge of decision makers and the staffing levels in localities is often too weak to make and implement good decisions about health service issues. (In some cases this argument is an equity argument, emphasizing the differences in skills and staffing from wealthy to poor communities.) Others suggest that the difference in funding levels from one locality to another might explain the difference in the ability to make good decisions at the local levels.

Since many decentralized health systems emerge from a centralized bureaucracy and introduce new authority and responsibility for local elected officials – charging them with the responsibility of defining local priorities and mobilizing additional local resources – we sought to assess the accountability of the health administrators at local levels to the elected officials at those levels.[15]

Opportunities to examine these dimensions appeared in USAID and World Bank projects in Pakistan, India and Vietnam. Modifying the survey instruments used in Nicaragua and Morocco and adding questions about the dimensions of institutional and individual capacity and accountability to local officials, we implemented surveys specific to the conditions in selected districts in Pakistan and three states in India and at the provincial level in Vietnam.

The study in Pakistan was the first attempt to assess decision space, capacities and accountability together.[16] The administrative organization of Pakistan involves national, provincial and district administrative units with a uniform civil service that involves both general administrators and health specific administrators. At the district level there are local elected officials, *Nazim*, who have a role in local decision making. The survey asked 91 officials, including the two types of administrators and the *Nazim*, questions about decision space, capacities and accountability specific to their roles in 17 districts.

The questions about decision space focused on four key functional areas (strategic and operational planning, budgeting, human resources, and service organization/delivery), and the questions on capacity asked about resources available, skills and experience, and processes. Questions about accountability attempted to assess how much the *Nazim* were involved in decision making and how responsive local administrators were to the *Nazim's* priorities. In this study we converted the responses

[14] Dennis Rondinelli (1981) "Government decentralization in comparative perspective: Theory and practice in developing countries." *International Review of Administrative Science* 47: 133-45 (1981)

[15] Derrick W. Brinkerhoff (2004). "Accountability and health systems: toward conceptual clarity and policy relevance." *Health Policy and Planning* **19**(6): 371-9, Shah, A. (2006) *Local governance in developing countries*. Washington, D.C., World Bank and Serdar Yilmaz and Y. B. Rodrigo Serrano-Berthet (2008). *Local Government Discretion and Accountability: A Diagnostic Framework for Local Governance*. Washington, DC, World Bank.

[16] Thomas J. Bossert and Andrew D. Mitchell (2011). "Decentralization and local decision-making: Decision Space, Institutional Capacities and Accountability in Pakistan." *Social Science and Medicine* 72 , pp. 39-48.

into quantifiable indices in order to test the significance of relationships. The responses were coded on a three-point Likert scale into narrow, moderate or wide decision space or high, medium or low capacity or accountability. These responses were then standardized by respondent type and summarized into two indices: one for responses to functional issues by individuals and one for responses to those issues across all respondents in a district.

We found that there were strong positive correlations among the different dimensions of decentralization – those who reported high levels of decision space in a specific function also reported high levels of capacities and accountability for that function.(see Table 3) For instance, if a district had high decision space for strategic and operational planning they also had high decision space for service organization and delivery (p= 0.43 at 5% level of significance).

Table 3. Cross-function correlations within dimensions of decentralization

Function 1	Function 2	DS		CAP		ACC	
SOP	BUD	.21	9	.20	6	.15	6
SOP	HR	.21	9	.27	6	.00	6
SOP	SOD	.43 *	4	.43	1		
BUD	HR	.22	5	.35 *	0	.10	2
BUD	SOD	.35 *	4	.31 *	4		
HR	SOD	.14	4	.42 *	4	.37 *	4

* $p < 0.10$ ** $p < 0.05$ DS= decision space; CAP= capacities; ACC= accountability; SOP=strategic and operational planning; BUD=budgeting; HR=human resources; SOD= service organization and delivery. Reprinted with the permission of *Social Science and Medicine*.

We also found that those who had high levels of one dimension in one function also had high levels in other functions – high decision space for all functions was correlated with high capacity and high accountability. (see Table 4) For instance, officials with high decision space for strategic and operational planning also had high levels of capacity for that function (p=0.41 at 5% level of significance).

Table 4. Within-function correlations between dimensions of decentralization

Function	DS/CAP		CAP/ACC		DS/ACC	
SOP	.41 *	5	.47	5	.10	5
BUD	.32 *	5	.14	1	.19	1
HR	.11	0	.02	0	0.20	0
SOD	.07	4	.04	4	.32 *	4
ALL	.39 *	5	.23	5	.02	5

* $p < 0.10$ ** $p < 0.05$ DS= decision space; CAP= capacities; ACC= accountability; SOP=strategic and operational planning; BUD=budgeting; HR=human resources; SOD= service organization and delivery. Reprinted with the permission of *Social Science and Medicine.*

To further test the relationship of the dimension of capacity we assessed the personal experience of the respondents and found correlations between years of service and an index of decision space – longer serving officials reported wider decision space – and more capacities (as measured by the index of capacities in the survey). (Table 5) Those with more training also reported more capacities. Interestingly there was no relationship with accountability.

Table 5. Correlations between decentralization and respondent experience/capacity

Dimension	**Training scale**		**Years of service**		**Years at post**	
DS	.25	4	.26 *	4	.04	5
CAP	.30 *	4	.24 *	4	0.01	5
ACC	.15	4	.18	4	.03	5

* $p < 0.10$ ** $p < 0.05$ DS= decision space; CAP= capacities; ACC= accountability; SOP=strategic and operational planning; BUD=budgeting; HR=human resources; SOD= service organization and delivery. Reprinted with the permission of *Social Science and Medicine.*

This study demonstrated, as did the earlier studies, that there was a wide variation of responses about the informal decision space, even within a relatively uniform civil service context based on a British model of administration. It also showed that there were significant synergies among the three key dimensions – decision space, capacity and accountability. The least strong relationship was with accountability, which is not

surprising given the lack of long experience with civil servants being responsive to local authorities. This synergy among the dimensions is an important finding suggesting, although not demonstrating causally, that policies to strengthen one of the dimensions might lead to improvements in the other dimensions. We also found that the choice allowed in human resources decisions – recruitment, hiring, firing and transfers – were extremely limited, and that this limitation was viewed by respondents as not reflecting their capacities in this area.

In an unusual opportunity, we followed up the original 2006 study with a capacity building intervention and a follow up study in 2009. The follow up study is based on surveys administered to local health sector decision-makers in 15 districts in Pakistan — 10 of which received capacity-building assistance from a USAID funded maternal and child health project, called PAIMAN, and five similar control districts which had no capacity building interventions.[17] While local authorities in both districts reported using more of their discretionary powers (i.e., "decision space") by 2009, institutional capacities in PAIMAN districts improved to a higher degree than in comparison districts. Officials in neither set of districts reported significant changes in their accountability to local elected officials, although those districts with more decision space and institutional capacities did mobilize greater local support for health programs. As in the earlier study, we found that there were strong synergies among the dimensions of decentralization for different health sector functions. This study extended those findings to show that stronger institutional capacities and wider decision space were associated with improvements in health coverage, and in better administration of the health system. These findings, again, were some of the few studies of decentralization that show how capacity building interventions to improve decentralization at the district level may contribute to improved decision-making abilities and, in turn, improved health system performance.

We modified the instruments of the Pakistan study to implement similar surveys in three states in India, Uttra Pradesh, Orissa and West Bengal.[18] The methodology was similar to that of Pakistan and the findings were similar. The Indian system granted greater authority to the states than Pakistani provinces (at the time – since the study was completed Pakistan has devolved most responsibilities to the provinces) so there is potential for greater variation among the states in India, and the local elected officials in the *panchiat raj institutions* (PRIs) were likely to be more reflective of electoral politics than were the *Nazim* of districts in Pakistan. The dynamics of the interplay of decision space, capacities and accountability at the district level were found to be similar. In all three states, we found significant variation in decision space, capacities and

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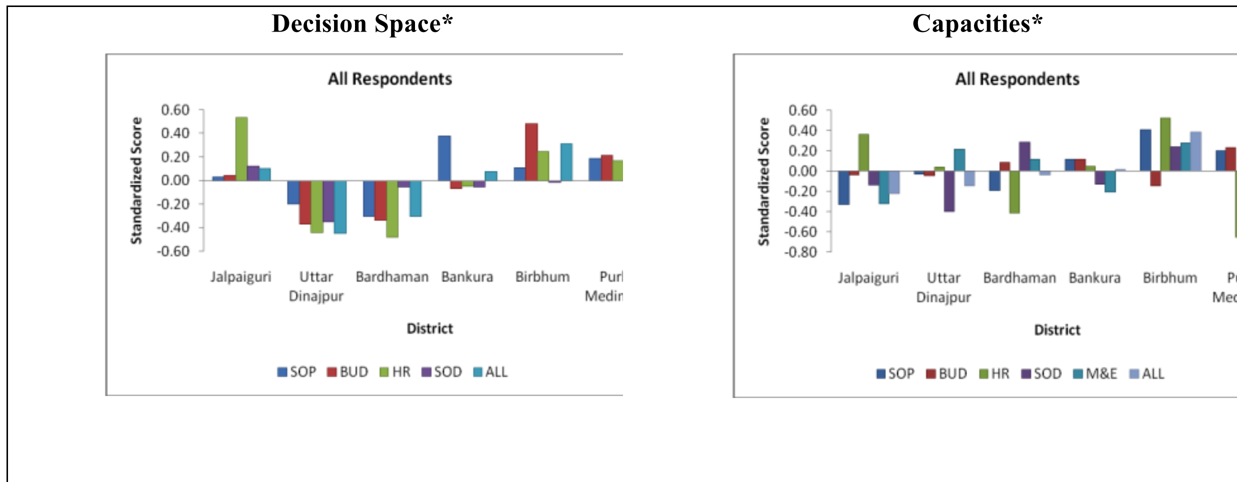
[17] Thomas J. Bossert, Andrew Mitchell and Muhammad Anwar Janjua. "Improving decentralization for health in Pakistan" submitted for publication in *World Development* 2011

[18] Thomas Bossert, Andrew Mitchell, Prarthna Dayal and Madhu Sharma. *Decentralization of Health in the Indian States of Uttar Pradesh and Orissa: Analysis of Decision Space, Capacities and Accountability*. World Bank. February 2008; Thomas Bossert, Andrew Mitchell, Sumit Mazumdar, Paolo Belli. *Decentralization of Health in the Indian State of West Bengal: Analysis of Decision Space, Institutional Capacities and Accountability*. World Bank, January 2010.

accountability as reported by the officials interviewed. For instance the results in six districts studied in West Bengal are presented in Figure 1 below.

Figure 1. Decision Space and Capacities Scores in Six Districts of West Bengal, India



* SOP = Strategic/Operational Planning; BUD = Budgeting; HR = Human Resources; SOD = Service Delivery/Organization; M&E = Monitoring and Evaluation

In all three states, the synergies among the dimensions of decision space, capacities and accountability were also demonstrated, although to different degrees of correlation and significance for specific functions. The least strong relationship was with accountability – reflecting the same situation in Pakistan – and reflecting again the historical experience of civil servants not being responsive to local authorities. We also found that limitations in human resources were perceived as a major constraint on effective management at local levels.

While the Vietnam study focused on provincial level decentralization rather than at the district levels, the study found similar results to the findings in Pakistan and India.[19] While the political system in Vietnam was different from that of Pakistan and India, the dynamics of relationships among the dimensions of decentralization did not seem to be affected by a system dominated by a single political party. We again found significant variations in the informal decision space, capacities and accountability and also significant synergies among the three dimensions. Again, accountability was the least strong dimension and human resources perceived as the most restricting functional area, although the policy of allowing local contracting has mitigated this constraint. In Vietnam the central allocations to the poorer provinces was a clear national policy that had the implication that the wealthier provinces exercised greater decision space, likely because they contributed more of their own source resources, than did the poorer provinces which were more dependent on central government transfers.

[19] Thomas J. Bossert, Andrew Mitchell, Nathan Blanchet. *Governance and Decentralization of Health Systems in Vietnam: Analysis of Provincial Organization, Decision Space/Accountability and Capacity*. World Bank, 2010

This series of studies confirmed the utility of examining decision space, capacities and accountability in a way that explored the interactions among the three dimensions. In the study of Pakistan, it also provided evidence of how a single intervention in capacity building could strengthen the performance of the system, and the advantages of synergies among the dimensions.

5. Governance and Sector Interests

In some recent work we have become aware of a significant difference in the way we approach and seek to evaluate decentralization from those who identify themselves as governance experts.[20] The growing interest in governance among major development donors has given rise to analysts who examine decentralization from a normative perspective based on theory (going back at least to de Tocqueville) and advocacy that more decentralized governance is likely, at least in the long term, to result in better democracies and in better policies. From this perspective more decentralization is an objective to be sought by general policies, although the more sophisticated analysts also warn that the type of decentralization needed would have to avoid problems of capture, corruption and inequities of resources. In terms of objectives, this perspective is quite different from ours. We start with the proposition that we want to know the best form of decentralization for achieving the objectives of a health system. For us the performance that measures the effectiveness of decentralization is primarily whether and how decentralized systems achieve better health outcomes. However, we are also concerned that health policy reduce the financial risk of illness, and generate patient and public satisfaction with health services in a manner that is equitable, efficient and marked by high quality.[21]

For this project we analyzed secondary sources for six case studies of decentralization in Asia (India, Pakistan, Philippines), Africa (Uganda) and Latin America (Bolivia, Chile) to assess differences in decision space and accountability for policy recommendations for World Bank officials. We summarized the decision space of the six cases as follows in Table 6:

Table 6: Decision Space for Six Country Study

[20] Andrew Mitchell and Thomas J.Bossert. "Decentralization, Governance and Health System Performance: 'Where you stand depends on where you sit'. " accepted for publication by *Development Policy Review.*

[21] Marc Roberts, William Hsiao, Michael Reich and Peter Berman. *Getting Health Reform Right*. London and New York: Oxford University Press 200?

Function	Exercise of local discretion			Drivers of local-level authority
	Low	Med	High	
		Administrative decentralization		
Required programs	India Pakistan Uganda	Bolivia Chile	Philippines	India, Pakistan, Uganda: high conditionality on central fiscal transfers shape programmatic implementation Bolivia, Chile: insurance-related mandates provide some programmatic mandates Philippines: minimal central programmatic mandates
Hospital autonomy	Chile Pakistan Uganda	India	Bolivia Philippines	Chile, Pakistan, Uganda: secondary and/or tertiary care outside of scope of health sector decentralization India: hospital autonomy conducted on state-by-state basis Bolivia, Philippines: local government ownership and/or management of hospitals provides wide discretion
Insurance Plans	Bolivia Chile Pakistan Uganda	India Philippines		Bolivia, Chile: centrally-defined/administered plans Pakistan, Uganda: lack of large-scale insurance mechanisms India: some use of community-based health insurance Philippines: centralization over many elements (e.g., administration; premium collection) coupled with local choice over selected plan elements (e.g., enrollment of the poor)
Contracting (with organizations)	Chile India Uganda	Bolivia Pakistan Philippines		Chile, India, Uganda: little local-level ability to contract Bolivia, Pakistan: contracting allowed upon central approval Philippines: relatively wide ability to contract at an organizational level (but not yet well developed in practice)
Procurement	Bolivia India Pakistan Uganda	Chile	Philippines	Bolivia, India, Pakistan, Uganda: most elements standardized at national level (e.g., drug lists, prices) Chile: local choice for hospitals using public/private suppliers Philippines: existence of numerous local procurement systems
Civil Service (salaries)	Bolivia Chile India Pakistan Philippines Uganda			All countries: continued reliance on centrally set civil service salary grades
Civil Service (other HRM*	Bolivia	Chile	Philippines	Bolivia: public sector personnel not devolved

Function	Exercise of local discretion			Drivers of local-level authority
	Low	Med	High	
functions)	India Pakistan		Uganda	India, Pakistan: continued local government deference to civil service administrators Chile: discretion limited to primary care sector Philippines, Uganda: wide local discretion exists
Contracting (with individuals)	Bolivia Chile India Pakistan Uganda	Philippines		Bolivia, Chile, India, Pakistan, Uganda: little locally initiated contracting for services in public facilities Philippines: local contracting allowed below level of physician
		Fiscal decentralization		
Expenditures / Revenues	India Pakistan Uganda	Bolivia Chile Philippines		India, Pakistan, Uganda: comparatively high conditionality on central transfers/low local capacity own-source revenues Bolivia, Chile, Philippines: comparatively low conditionality on central transfers/higher levels of own-source revenues

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For capacities the cases suggested that specific capacities be assessed in terms of present capacity for implementation – for instance, use of contracting when existing capacity does not exist – as well as using decentralization as a means of strengthening longer term capacity.

For accountability we identified several mechanisms that appeared to improve both civic and social accountability which went beyond the focus only on accountability toward local elected officials to see if accountability to community organizations was effective (Table 7).

Table 7: Accountability and Decentralization in Six Country Study

Function	Public Accountability	Social Accountability
Administrative decentralization		
Norms/Programs	▪ Minimum technical standards (e.g., staff establishments)	▪ Area-wide performance agreements/rankings (Bolivia)
Hospital Autonomy	▪ Limited autonomy to certain hospital functions (Philippines) ▪ performance agreements for nationally-important indicators (e.g., immunization coverage)	▪ Hospital boards (with government representation) (India) ▪ Facility/provider report cards (Bolivia)
Insurance Plans	▪ Use matching grants to	▪ Community-based

Function	Public Accountability	Social Accountability
	encourage some components (e.g., enrollment of subsidized beneficiaries)	financing
Contracting (with organizations)	▪ Permit local contracting under case-by-case approval from central government (Bolivia)	▪ Institutionalized community identification and implementation of projects (e.g., CCBs in Pakistan)
Procurement	▪ Retain strict standards for uniform functions (e.g., inventory control) / allow greater discretion over variable functions (e.g., budgeting)	▪ Institutionalized transparency (e.g., information dissemination on prices) with purchasing decision left to localities (Chile)
Human Resources		
Civil Service	▪ Allow increased short term contracting of some professionals to increase flexibility	▪ Provider/facility report cards (Uganda)
Contracting (with individuals)	▪ Allow increased short term contracting of some professionals to increase flexibility	▪ Provider/facility report cards (Uganda)
Fiscal decentralization		
Expenditures / Revenues	▪ Match expenditure to revenue assignments	▪ Participatory budgeting (Uganda) ▪ Performance agreements (Uganda, Bolivia

Source: Thomas J. Bossert and Andrew Mitchell, *Background Note on Sectoral Decentralization and Local Governance for an Economic and Sector Work (ESW): Health Sector*. Harvard School of Public Health and World Bank 2009

This study was a review of existing literature and not the result of primary research using a consistent methodology – as had our earlier work on this wider type of analysis. We are therefore less confident that the recommendations come from systematic evaluation of similar situations which might come from systematic surveys.

This study did, however, demonstrate that the combined study of formal decision space, capacities and accountability could be informative, even if it was not based on a survey of officials – making the study of complex decentralization factors feasible for desk study methods.

6. Policy Recommendations

In general we found that the decision space at local levels was still quite restricted, even in countries with reputations for being very decentralized. We found that there was considerable variation in decision space among different countries and within countries in the decision space among different functions. The recent studies of decision space, capacities and accountability show relatively consistent synergies among the three

dimensions in three different country contexts (Pakistan, India and Vietnam) and similar weakness of accountability and limitations on human resources decisions.

The decision space studies have in general supported the idea that it is not so much *whether* policy makers choose to design and implement decentralization but *how* they do so. While we only have some sophisticated studies demonstrating the effects of some processes of decentralization, these studies did show that, under certain conditions, some forms of decentralization can improve equity of access and logistics systems performance. In general, since in several countries we find that decision space and capacity are linked, policies to increase decision space should be accompanied with programs to improve local capacities. The relationship with accountability, although not as strong, also suggests that mechanisms for local accountability can improve decentralization -- even in countries where local elite capture may be rampant. The current low levels of decision space in many countries also suggest that there is considerable room for experimentation in wider decision space than most countries currently allow.

The studies of decentralization that used the decision space approach led to some specific recommendations for policy in each country. For Nicaragua and Morocco we were able to recommend expansion of decision space for specific functions that were seen by respondents as particularly constraining. We were able to make specific recommendations for capacity building in different functional areas by district in Pakistan and India and by province in Vietnam.

These studies suggest that decentralization policies be developed in ways that can incrementally increase the range of local choice for officials, who can be responsive to local needs and priorities and at the same time improve overall health system performance and equity. This can best be achieved if a wider decision space is accompanied with capacity building at the local level, and with some increase in accountability of health officials to local elected officials. Especially important is increasing institutional capacities through additional staffing, well designed and specific management training programs, and technical assistance support for logistics and information systems – a potent combination likely to improve health systems performance. We also found that targeting districts with low levels of capacities could be a way of improving the equity of performance across districts.

The experiences in the countries in our earlier studies, especially Chile and Colombia, suggests a process of incrementally increasing decision space while at the same time providing additional resources, either through resource generation by local authorities, or through greater intergovernmental transfers, or both.

The possibility of improved synergies shown especially in the Pakistan study encourages us to recommend interventions in the capacity building area that can also be related to greater use of decision space and more responsiveness to local authorities. They also allow us to recommend specific widening of decision space from the often quite restricted narrow range to greater local discretion over how to allocate their own funds; more control over human resources, especially incentives for better performance; a greater ability to focus organizational resources on priority health problems and also make decisions to make services available at more appropriate times for patients; and

allowing for greater local participation in the governance of health services. It is also likely that the central authorities should retain control over norms and standards for the quality of services and for equity of access to services. While expanding choice for human resources, a constraint that several studies found particularly important, policies of decentralization should, nevertheless, also retain some control over human resources to assure that hiring, firing and incentives are made based on merit rather than patronage or individual caprice.

We have some evidence that greater responsiveness to local authorities, especially if they are held accountable by effective elections, is likely to improve performance. The mechanisms of accountability that require some oversight by local authorities and grant them some control of local budgets, as well as some granting of direct community participation through local health committees or social audits, also seem to have an important role, although our studies do not find this as significant as capacity building and decision space adjustments.

7. Where to go from here

This set of empirical research suggests that decentralization is extremely complex both conceptually and in practice and that we still need much more work to develop clear and comparative criteria for defining the phenomena. We are not satisfied with the general approaches which use simple dichotomous definitions of decentralization. We have tried to define decentralization as choices made by local officials and used two methods of defining that decision space of choice: the regulations and laws defining "formal" decision space and the use of "informal" decision space that is reported by respondents to closed-ended surveys. There are problems with these approaches. Laws and regulations often do not reflect actual use and therefore might over or under estimate the amount of local choice that is practiced. However, the reports by officials may be influenced by reluctance to report what is not in the formal rules or by ignorance, misunderstanding or self aggrandizement. These are general problems of any survey so it would be important to continue to validate the approach in places where some observation by outsiders is also possible. Perhaps more important, the need to tailor each survey instrument to the likely reasonable responses within the country context and to the situation of each type of official respondent, means that comparative analysis across countries is extremely limited. Although we have used relatively similar instruments in Pakistan and the three states in India, the variations in conditions make it hard to say that there is more use of informal decision space for any specific functions in one or another state or country.

The empirical work we have done has also allowed some preliminary findings that partly suggest how decentralization is related to performance – with findings that decentralization processes have brought increased equity of allocations in some contexts, and that in some cases, those officials who take greater advantage of the decision space that they are allowed can make better choices if they have more capacity and more accountability. However, we are far from our initial objective of finding evidence of what type of decentralization should be recommended for achieving better health system outcomes. It is likely that better performance depends on a combination of context

factors about the overall governance and economic systems, including specific details of the processes of accountability, as well as the details of the rules of decision space and the institutional and personal capacity of local decision makers.

However to determine what these factors are and when to increase decision space and/or develop system strengthening capacity building programs with scientific confidence would require a research agenda tied to the implementation of a decentralization policy that would allow random assignment of changes in decision space, capacity and accountability. The before and after studies that we have done and the observational studies of point in time associations do not control for other factors that might influence observed performance differences. For instance, changes in decision space in Colombia and Chile were made at the same time as other changes in insurance programs which might also have influenced health outcomes and for that reason we focused only on allocation decisions not likely to be affected by the insurance program.

While random control trials are the gold standard for evaluating the impact of interventions, in the case of decentralization especially, they are likely to be most difficult to implement. Few countries are willing to implement a complex intervention like decentralization in a phased manner amenable to randomized trials.[22] A rare policy maker would be willing to allow researchers to randomly assign which districts will receive greater decision space and which would not, even if the trial was only to last a year or so before rolling out decentralization to the control districts.

In the absence of opportunities for randomized trials, continuing efforts to evaluate decentralization by examining performance indicators from before and after initiation of changes in local decision making authority is probably the only method we will have.

The effort to evaluate the advisability of different degrees of decision space, different levels of local capacity and different responsiveness to local elected officials is likely to be worth it. Without empirical evidence of the results of policy choices about decentralization we are likely to continue to miss out on strongly supported recommendations for future policy, and continue to hear the recommendations that come from untested theories and from advocates either for or against decentralization.

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[22] A rare exception is the random trial evaluation of Mexico's complex social insurance program, *Seguro Popular*. See Gary King, Emmanuela Gakidou, Kosuke Imai, Jason Lakin, Ryan T Moore, Clayton Nall, Nirmala Ravishankar, Manett Vargas, Martha María Téllez-Rojo, Juan Eugenio Hernández Ávila, Mauricio Hernández Ávila, Héctor Hernández Llamas. "Public policy for the poor? A randomised assessment of the Mexican universal health insurance programme" *The Lancet*, 2009; 373: 1447–54