

**Delivery of Public Services: Models, Experiments,  
and Policy**

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## Introduction

- An overview of current economic thinking on public service delivery
- I will focus on some conceptual issues and leave Karthik Muralidharan to focus on the evidence
- Hope to generate thoughts on how to move from generalities to specific projects

## Motivation

- Effective provision of public goods and services is an input to the formation of human capital and hence, growth
  - quality, not quantity matters
  - while the quantity of education (average years of schooling of the labor force) is statistically significantly related to long-term economic growth, the association between years of schooling and growth falls to close to zero once education quality (measured by average scores on internationally-benchmarked tests) is introduced

- Despite the overwhelming evidence public policy debates often continue to revolve around crude quantitative measures
  - “how much” (i.e., how much money) is spent by the government on some particular public good/service
  - "how many" (how many immunizations were carried out or textbooks distributed)
  - Not enough on "how" or "what (happened)" in terms of final health, education outcomes that we care about or social cost-benefit analysis

- Despite considerable economic growth in India, progress in this respect has been disappointing
- Bihar has made great strides in the last few years, but there is still a long way to go

- Why not leave it to the market? (the businessmen at Maurya and not the NGOs!)
- "Market Failure" - market underprovides these goods as prices do not fully reflect marginal social benefit
  - Externalities (e.g., preventive care in the case of epidemics)
  - Quality and/or outcomes are hard to measure and so agency problems severe
  - Peer effects (e.g., children are more likely to go to school if their peers do)
  - Equity or minimum-service objectives (in terms of health, education, welfare).

- Traditional view equated public goods to government provision & ignored
  - "Government failure" (corruption, bureaucratic waste, low effort)
  - Possibility of government funding without direct provision (contracting out, PPPs)
  - Non-state non-market institutions such as NGOs & community organizations

- Indeed, government involvement has added several added reasons for underprovision
  - Even when it is targeted to the poor, there is leakage (waste, corruption)
  - There is rampant absenteeism & poor quality service
  - A recent study on India (Chaudhury et al, 2006) found using a nationally representative sample that on a typical working day 25% teachers and 40% health providers were absent.



## A Conceptual Framework

- Think of an individual who is making a decision about a public good or a service, e.g., whether to
  - send his/her child to school or which school to send them to (say, a free public school or fee charging private school)
  - participate in an immunization or de-worming programme
  - use an insecticide treated nets (ITNs) that prevent malaria with or without a user charge.
- Also, suppose that society puts an additional value on this individual obtaining this service over and above the benefit that this individual receives.

- We can classify the problems relating to public service delivery in terms of factors that cause
  - the individuals less willing or able than is socially optimal to obtain the public service;
  - the suppliers of this service less willing or able to provide the service at a satisfactory level of quality;
  - the social valuation of this individual obtaining this service not being reflected in the level and quality of resources that end up being effectively used for that purpose.
- Similar to the scheme proposed by The World Development Report (2004) identifying the three sets of actors and their inter-relationships in the context of public service delivery, namely, clients, providers (bureaucrats, non-profits, for-profits), and the state.

- For most private goods, the key relationship is between the first and second actors, with the third actor only playing a regulatory role in addition to providing physical and legal infrastructure that supports and facilitates private transactions.
- However, in the presence of market failures, externalities, and social objectives concerning equity and welfare, the state would want to intervene.
- The various problems in public service delivery can be classified in terms of problems with these actors and their inter-relationships.

## **Clients: The Demand Side**

- Even if there were no supply side problems the mere fact of poverty would imply that demand side interventions are needed, in terms of enabling the poor to afford these, the simplest form of which would be unconditional cash-transfers.
- Some very interesting developments in Bihar that we heard about yesterday.
- Bicycle scheme took the form of UCC but there was very little diversion according to the Deputy CMs discussion yesterday
- 27 lakh beneficiaries and 15 crore rupees of expenditure

- The puzzle is why was targeting so good (very little leakage) or there so little diversion by the poor on other forms of expenditure
- One can argue that you don't look a gift horse in the mouth and so if it succeeded, then we should be happy
- But we learn from successes as well as failures since various factors are at work, and it is possible that this will not always work so well
- Need for rigorous evaluation, and experimenting with other forms of design to learn what worked so well

- These schemes work (relatively) well when the supply side is very problematic
  
- However they too have several problems
  - Like with any form of redistributive schemes, targeting is a big problem and one can see the incentives of those who are not poor to try to capture some of these transfers via fake documents or bribery.
  - Even if the above problem is avoided, e.g., by the proposed UID scheme in India, the poor may not be able to act in their long-run self-interest or the interests of their children and suffer from too much present-bias or from imperfect information.
  - Intra-household allocation issues - often the male head of the family may not fully take into account the welfare of the rest of his family.

- With externalities (e.g., preventive health care such as immunization, keeping the neighborhood clean), unconditional cash transfer programmes will lead to suboptimal outcomes

- These create a rationale for other more complicated forms of transfers.
- These could be in the form of in-kind transfers, vouchers (e.g., food stamps), subsidies, or conditional cash transfers ( e.g., cash transfers made to poor families in exchange for regular school attendance by children along with health clinic visits, and nutritional support such as the well known Progressa programme in Mexico - now called Oportunidades).



- Evidence on vouchers

- A recent study on educational vouchers in Colombia provides encouraging results (Angrist et al, 2002) on vouchers.
- Colombia used lotteries to distribute vouchers which partially covered the cost of private secondary school for students who maintained satisfactory academic progress.
- Three years after the lotteries, winners were about 10 percentage points more likely to have finished 8th grade, primarily because they were less likely to repeat grades, and scored 0.2 standard deviations higher on achievement tests.

- The key issues driving the choice among these would be:
  - finding mechanisms for delivering it to the intended beneficiaries (to prevent leakage and corruption, to make sure the non-poor don't capture it, for example, make working a condition for receiving transfers, as in the National Employment Guarantee Scheme of India);
  - the extent to which individuals are not fully rational actors, and may sometimes act against their long-run self-interest or the interests of their children (as in the behavioural economics literature);
  - the extent there are peer or social network effects, which are particularly important for certain types of public goods and services where there are externalities (e.g., Kremer and Holla, 2008 discuss how the aggregate response to prices exceed individual responses in the context of user fees).

- Some of the problems here would apply even for private goods, e.g., the ongoing discussion in India about food-stamps replacing the public distribution system.

## **Providers: The Supply Side**

- The key issues are
  - Incentives (e.g., should teachers be paid a bonus based on student performance),
  - Organizational choice (for-profits, non-profits or public sector organizations)
  - Accountability

## Incentives

- The goods are complex and as a result the objectives of the relevant organizations are somewhat imprecise.
- The reason why such goods are complex is because they involve several dimensions.
- For example, good education involves students being able to achieve high scores in standardized tests, but also encouraging a spirit of creativity, curiosity and inculcation of good values.
  - Therefore, incentives based on "output" is not simple.
  - Several studies find that linking teacher pay to students' test scores increases preparation sessions for examinations but not teacher attendance.

- There is mixed evidence on whether it promotes student learning.
  
- Several types of problems
  - Shirking
  
  - Corruption
  
  - Passive waste and bureaucratic delays
  
  - Multi-tasking considerations
  
  - Misallocation (e.g., giving things to those who don't deserve it, denying deserving people)

- Some problems are very basic, such as that of absenteeism and is the result of the (almost) absolute job security of government jobs
- Empowering local school committees to hire teachers on short-term contracts outside the civil service system leads to dramatic improvements in teacher attendance and also, student learning even though they are paid much less than public school teachers.
- The key feature here seems to be that the renewal of their contract depends on satisfactory performance, highlighting the important role of incentives.
- While it is an interesting finding, at one level it is not very surprising.
- Someone in the institutional hierarchy (like the headmaster of a school), could be given the task of keeping an eye on the teacher and penalizing absences.

- The problem with a person doing the monitoring is that he/she may either be too lazy to monitor, or might collude with workers.
- More objective ways of recording performance may be the way out because "who will monitor the monitor?"
- One well known study in Udaipur, Rajasthan by Duflo, Hanna and Ryan considers incentives based on impersonal method of recording absence (e.g., use of cameras)
- In general low powered incentives are likely to be optimal.
- The fact that providers may be intrinsically motivated is also very important.
- Harnessing this will reduce the need to give monetary incentives



## Organizational Choice

- From the economic point of view, the key trade off here is being cost and quality.
- Private for-profit firms will minimize costs or maximize profits and to the extent quality measurement is not a major problem, they can be an attractive alternative.
- However, to the extent quality is hard to measure and/or the regulatory environment is slack for-profits will sacrifice quality for profits.
- In contrast, non-profits or public sector organizations face low powered incentives and so will under-supply effort to cut costs

- For goods and services for which the public component is small and/or quality is observable, there is no a priori reason not to involve private for-profits (e.g., garbage collection, mobile toilets).
- NGOs may find it easier to screen on motivation than the government.
- They may also foster public service motivation by providing a better match between the ends of the organization and its workers.
- However, some words of caution are warranted.
- The weak accountability structures of NGOs - need regulatory framework
- Unless there are many NGOs operating in the area, the beneficiaries are not in a position to vote with their feet.

- The same is true of government provision but NGOs do not have to worry about getting elected.

## **Accountability**

- The main idea is that service providers should have better incentives to respond to the needs of beneficiaries either through a political, bureaucratic or market process.
- Accountability applies in both the political, bureaucratic and market sphere.
- Several recent studies show that giving access to greater information to citizens allow them to monitor providers better.
- In a randomized experiment in Uganda, Reinekka and Svensson (2008) local NGOs worked with communities to encourage them to be more involved with the state of health provision and improve their capacity to hold local health providers accountable for their performance.

- The recent institutional reforms in the form of the Freedom of Information Act, technological innovations such as mobile phones, and infrastructural innovations in the form of the proposed Unique Identification Number scheme hold great promise.
- These need to be complemented by reforms that enable greater participation of citizens in the monitoring of service providers.

- Given that outcomes are hard to measure, relative comparisons are necessary.
- Some form of yardstick competition or league tables, at the school or health clinic level but also at block or district levels
- In the UK starting in 1988 schools are required to publish information on their performance on national test assessments at different ages in primary and secondary school.
- These data are compiled and published by the government and are also used by the media to rank schools in nationally published school league tables.
- These rankings are then used by central government to sanction poorly performing schools.

- This takes for form of naming and shaming but can also involve the replacement of school management, or school closure in extreme situations.
- In addition, the information can be used by parents in choosing a school for their child.
- Poorly performing schools may lose students—which leads to a reduction in resources because, to an extent, public funds follow the student—while highly performing schools may gain pupils.
- Moreover, since the early 1990s, all English state schools have been inspected by an independent government agency, the Office for Standards in Education (Ofsted).
- Starting in 2000, Ofsted produced ratings of schools consisting of two elements: test scores combined with background characteristics, and qualitative evidence from the inspector reports.

- A school report for each school is also produced and publicly released immediately after the inspection.
- If a school fails the Ofsted standards, the local education authority can apply sanctions.
- These schools are also subject to repeat inspections and greater scrutiny.
- In turn, the governing board of the school can remove the school principal.



## The Interaction Between Demand & Supply Side Problems

- It is convenient to assume, at first pass, that the client and provider side problems are independent
- Even with the best possible supply side incentives, if clients are not aware enough or don't value the service enough (for reasons of present-bias or lack of information), the resulting outcomes are going to be poor.
- Similarly, if clients value the service a lot and yet the supply side is ridden with frictions, the resulting outcome is going to be poor.
- Therefore, an interesting research agenda is to study twin interventions on demand and supply.

- For example, are teacher incentive schemes more effective when school attendance and other measures of demand for education are boosted by vouchers or conditional transfers?

## Competition

- Most thinking has focused on "small scale" interventions
- However, it is important to keep in mind market equilibrium effects
- Incentivizing teachers in a school may draw students from other schools, which may reinforce the effect of teacher incentives, but also have an effect on these "other" schools
- The well known effect of competition in the context of private goods is to retain existing consumers or attract new ones, an organization has to either cut costs or improve quality.

- Can these arguments in favour of competition for the provision of private goods borrowed in the context of public goods?
- According to some advocates of school competition and vouchers, such as Caroline Minter Hoxby, the answer is yes.
- Competition from private organizations can induce public organizations to get their act together to hold on to funding and to their clientele – competition is a “rising tide that raises all boats”
- Opponents argue that competition will lead to cream-skimming.
- New schools will attract students from higher income and education groups.

- As these students leave, taking with them the per-capita government funding, poorer students in old schools will be strictly worse off.
- Also, without regulation competition might lead to a race to the bottom in terms of quality
- These are some of the things to keep in mind when thinking of using vouchers
- However, we are not arguing against competition per se.
- It merely calls for "smart" vouchers whose value depend on the socioeconomic background of the student, so as to make them attractive to new schools (Besley and Ghatak, 2009)

## Concluding Thoughts

- Policy formulation needs to be evidence-based.
- But the problem with much of available evidence is that it is based on work with NGOs and small players and not with government.
- Close engagement of researchers with government is a good way of developing such evidence base.
- This has not often happened because there is a clear disconnect between governments in developing countries and academics/researchers
- This call for close engagement is the promise of initiatives like the IGC.

- However, the focus of academic research is on rigour and analytical insights
- It is not Mckinsey-type descriptive consultancy reports
- This is where IGC seeks to make a difference

- We also need to have a close symbiotic relation between theory and empirical research
- Theory is not just abstract puzzle solving but it tells us what questions to ask and how to interpret answers
- Otherwise, you get very simple "did programme X and Y happened" type analysis
- This may be very solid in terms of "identification" but issues remain of
  - External validity
  - What alternative programmes could have done



- This calls for more and (successively) more complex experiments, not an argument against.
- After all, theory just gives us a very imperfect and imprecise map of a terrain that we do not know very well
- There are good theoretical arguments on both sides of the main fault lines regarding service delivery (including public vs. private. vs. NGO provision; centralized vs. decentralized provision/accountability; civil-service vs. contract employees)
- So, in the end, these are essentially empirical questions.
- At the same time, there is typically mixed empirical evidence on a bunch of issues as empirical contexts vary a lot and so one needs theory to have a coherent perspective.

- For a context as large as 80M people (Bihar), it would be important to generate contextual evidence with respect to these trade offs.
- There are high payoffs to innovation in government, which is evaluated over a reasonable sized administrative domain (like a few districts) before being scaled up.
- The tension here is that government typically moves all or nothing and even if we can show that the status quo is not working, we typically rarely know enough to confidently recommend whole-scale changes on some of the big divides (like vouchers or contract hiring of staff).
- So, it would be good to make policy space for systematic theory-driven pilots and evaluation, which feed directly into policy.

- Research perspective is also crucial for thinking of political accountability and for design of performance-based contracts for policymakers.
- The Bihar election suggests good performance is acknowledged by the voters & so political mechanisms can generate incentives
- This is not true for many other contexts and is the key political economy question.