

Improving Health and Education Service Delivery in India through Public–Private Partnerships

Knowledge Series



Edited by

Anouj Mehta

Aparna Bhatia

Ameeta Chatterjee



THE GOI-ADB PPP INITIATIVE

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Improving Health and Education Service Delivery in India through Public–Private Partnerships

*PPP KNOWLEDGE SERIES
under the ADB–Government of India PPP Initiative*

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Foreword

The Planning Commission of India has estimated an increase in infrastructure spending from 4.7% to 8.0% of the country's gross domestic product (GDP) to sustain growth and poverty alleviation targets. This translates into a \$500-billion investment requirement across sectors during 2007–2012. The ability of the public sector to meet the above requirement is constrained by a high public debt that averaged 81.5% of GDP from 2002 to 2008 and rising fiscal deficit. Due to the limited public infrastructure spending, private investments could play a pivotal role in bridging infrastructure investment deficits. The private sector is expected to contribute around 29% of the total requirements for 2007–2012.

Health and education are the critical sectors for achieving overall equitable human development in the country. India's health spending (4.8% of GDP) and education spending (4.1% of GDP) are much lower than the spending of Organisation for Economic Co-operation and Development (OECD) member countries. The private sector can bridge the investment deficit and improve the efficiency and outreach of service delivery. However, there are some challenging sector issues that constrain its ability to enter through public–private partnership (PPP) modalities.

Several constraints exist in the health and education sectors in India. The major challenges for the health sector include accessibility and coverage in rural areas, ineffective management of existing infrastructure, and inadequate number and quality of health care professionals. In the education sector, the primary and upper-primary schools are constrained by several factors, including inadequate basic physical infrastructure (toilets, electricity, and drinking water), absenteeism of teachers and poor quality of training, and lack of leadership and ineffective management at school level. Capacities also need to be strengthened to structure PPPs with local governments, since PPPs and infrastructure-related reforms are still evolving in many states. Some bankable PPP models could be developed as pilot projects to serve as models for replication across the sectors.

The Asian Development Bank (ADB) has been at the forefront of assisting the Government of India in mainstreaming PPPs in the country at both the national and state levels. Its ongoing efforts to support the government include initiatives for capacity building and institutionalizing PPPs across local governments, states, and sector ministries. Together with the Department of Economic Affairs (DEA), ADB is following a sector-specific approach for identifying bankable pilot projects after holding discussions with selected states, and studying domestic and international best practices.

A special task team that included ADB and KPMG consultants undertook a rapid assessment study to develop possible PPP solutions to meet the challenges of India's health and education sectors. This

involved a series of consultations with selected state governments (including Andhra Pradesh, Orissa, Rajasthan, Tamil Nadu, and Uttarakhand) and larger focus group workshops with states from across the country. The feedback from these consultations and the result of an assessment of domestic and international PPP experiences in the sectors have led to the development of this report.

A number of PPP models have been conceptualized for use in India. Pilot projects have also been identified and are being structured around these models. This exercise does not purport to be a full-scale study of solutions to all the sector's challenges but hopes to provide some useful ideas and suggestions for improving the ability of the health and education sectors in India to provide an equitable quality of life and deliver sustainable services.

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Abbreviations

ADB	–	Asian Development Bank
BSF	–	Building Schools for the Future
CHC	–	community health center
DEA	–	Department of Economic Affairs (India)
DBFO	–	design, build, finance, and operate
DFES	–	Department for Education and Skills
GDP	–	gross domestic product
GEMS	–	Global Education Management Services
HBS	–	Hyder Business Services
ICT	–	information and communications technology
ITN	–	invitation to negotiate
ISTC	–	independent sector treatment center
LEA	–	local education authority
LEP	–	local education partnership
LIFT	–	local improvement finance trust
MDG	–	Millennium Development Goal
MHFW	–	Ministry of Health and Family Welfare
MRI	–	magnetic resonance imaging
NAO	–	National Audit Office (United Kingdom)
NGO	–	nongovernment organization
NHS	–	National Health Service
OECD	–	Organisation for Economic Co-operation and Development
PCT	–	primary care trust
PFI	–	private finance initiative
PHC	–	primary health care center
PPP	–	public–private partnership
PQQ	–	pre-qualification questionnaire
VFM	–	value for money

Executive Summary

The Asian Development Bank (ADB) engaged KPMG (a global consultancy firm), on behalf of the Department of Economic Affairs (DEA), Ministry of Finance, Government of India, to develop possible solutions to meet the challenges in the primary health care and primary education (primary and upper-primary schools) sectors in the country through the use of public-private partnership (PPP) modalities. ADB, KPMG, and the DEA have worked closely in the development of this report and are together referred to as “the team.”

A rapid assessment study included consultations with a number of selected state governments on the sectors’ challenges and an assessment of local cases of private sector participation in both sectors. An analysis of international PPP experiences, along with domestic consultations, resulted in the generation of potential PPP solutions suitable for the scenario in India. Useful sector assessments were also undertaken at the outset that led to emergence of PPP analysis and evaluation frameworks, which are useful tools for rationalizing the use of PPP modalities in the sector.

Primary Health Care and Public-Private Partnerships

India’s health spending (about 4.8% of gross domestic product [GDP]) is considered much lower compared with spending in Organisation for Economic Co-operation and Development (OECD) member countries. While India has successfully developed physical infrastructure and adequate coverage of primary health services, significant shortfalls remain. The top three challenges for the health sector are

- accessibility and coverage in rural areas,
- ineffective management of existing infrastructure, and
- inadequate number and quality of health care professionals.

Internationally, PPPs in the health sector have been focused on addressing large capital expenditure programs, such as hospital private finance initiatives (PFIs) and local improvement finance trusts (LIFTs) in the United Kingdom (UK). In addition, the Government of the United Kingdom recently introduced an independent sector treatment center that provides a framework for developing diagnostics and surgical capacity to meet the demands of the National Health Service. However, its success in meeting desired outcomes is as yet unconfirmed.

The team’s analysis also considered PPP experience at the state level, e.g., mobile clinics, user-charging diagnostics service centers, facilities outsourcing, ambulance management services, and primary health care centers. Each of these models was evaluated under the evaluation framework developed (see p. 10 and Table 3).

Based on the analysis, the models in Table 1 are recommended for further consideration.

Appendix 1 provides an outline of these models. To identify suitable pilot projects, the team discussed the models with state governments and asked them to consider the political, financial, and socioeconomic climate for procurement and delivery of such projects. Once pilot projects are identified, detailed affordability analysis, technical specification, and legal review will be undertaken during each project’s structuring and development.

Primary Education and Public-Private Partnerships

Education spending in India is about 4.1% of GDP, well below spending in most OECD member countries. While there has been considerable focus on building the school network over the last 5 years, significant gaps continue to hinder quality education across the

Table 1: Potential Public–Private Partnership Models: Health Care

Models	Key Features and Issues
Primary Healthcare Center Adoption, Management Contracts, and Mobile Clinics	<ul style="list-style-type: none"> • Addresses the need for improving primary health care access in rural areas. • Focuses on taking over existing infrastructure and introducing private sector management techniques. • Limited by the overall scarcity of health care professionals in the country.
Build, Own, and Operate Diagnostic Centers	<ul style="list-style-type: none"> • Addresses the need for creating additional diagnostics services. • Requires the private sector to install, maintain, and operate diagnostics services. • Has potential for user charging based on political appetite. • Needs a referral system with network of doctors and health centers.
Hospital Private Finance Initiative (PFI) Scheme	<ul style="list-style-type: none"> • Addresses the need for improving and developing hospital infrastructure. • Focuses on hard infrastructure and facilities management of the hospital (no health provision seen). • Affordability is a key consideration. • Requires wider stakeholder consultation. • Needs to develop public sector capability on procurement of a large private finance initiative project.

Source: Authors.

country. The team summarizes the top three challenges in the education sector as

- inadequate basic physical infrastructure at primary and upper-primary schools, e.g., toilets, electricity, and drinking water;
- teacher apathy, absenteeism, and poor quality of training; and
- lack of leadership and ineffective management at school level.

Internationally, PPP and/or PFI models have addressed both physical infrastructure and quality of education services. While evidence suggests that school PFI and/or PPP programs have favorable impact on education, the experience is relatively new. The team also evaluated local PPP experiences of the various states in India and noted that most partnerships involved volunteers or corporate philanthropy. This approach might be considered relatively difficult to scale up given the necessity to build financially sustainable

and bankable PPP models rather than a not-for-profit model.

Based on the assessment and discussions with domestic and international stakeholders, the team identified a number of potential PPP models for use in the education sector (Table 2).

Appendix 1 outlines the models in Table 2. As with the health PPP models, socioeconomic considerations, detailed affordability analysis, technical analysis, and legal review will be part of the detailed structuring of all identified pilot projects.

Next Steps

This study has produced some preliminary models as possible PPP solutions for specific

Table 2: Potential Public–Private Partnership Models: Education

Models	Key Features and Issues
Management contracts for: <ul style="list-style-type: none"> • Mentoring programs • School management • Teacher supply and training • Information and communications technology training centers 	<ul style="list-style-type: none"> • Addresses quality of teaching and education provision issues. • Relatively simple to procure and deliver. • Allows the procurement of manageable contract sizes. • Limited by supply and quality of teachers and support staff. • Requires extensive stakeholder management with teachers and other unions. • Affordability is a key consideration.
Build, lease, and maintain school buildings	<ul style="list-style-type: none"> • Addresses the need to build and maintain school to minimum national standards. • Provides a construction-led solution. • Affordability may need to be considered. • Frees up the time of school staff to deal with education delivery and not with building management. • Involves wider stakeholder management issues. • Requires public sector procurement and contracting capacity.
Residential schools in rural areas	<ul style="list-style-type: none"> • Addresses the need for schools in rural areas. • Allows private sector to build residential school facilities with an option to mix government-allocated areas with fee-paying private places. • Allows for the use of a voucher-based scheme for the poor. • Needs to consider financial viability and affordability.

Source: Authors.

health and education sector challenges in India based on a rapid assessment of on-ground challenges and on discussions with several state government officials. While not claiming to address all of the many challenges in both sectors, these identified PPP models could provide local government project sponsors with possible solutions to attract much-needed private sector funds to deliver enhanced primary health care and primary education services in the country.

A draft version of this report and the proposed model structures were discussed in workshops led jointly by ADB and the Department of Economic Affairs, with several state governments and led to over 20 pilot projects being identified. Some were considered by ADB and the Government of India for detailed

structuring and development as PPP projects under which detailed technical, financial, socioeconomic (including affordability analysis), public-sector comparator, and legal analysis will be undertaken. Following the structuring and requisite approvals from sponsor governments, a PPP procurement process that includes a bid process will follow.

Since the conclusion of this study, some of the identified pilot projects have undergone PPP structuring and are reaching the bid process stage to invite private sector participation in the projects.

It is hoped that the structures developed for these specific pilot projects will be useful for replication in other projects and enable the sector as a whole to develop.

Study Methodology and Public–Private Partnership Frameworks

ADB has been assisting the Government of India in mainstreaming public–private partnerships (PPPs) through a number of technical assistance projects at state, central, and project levels. Capacity building, institutionalization of skills, and demonstration PPP projects are some of the activities pursued through this assistance. A rapid assessment of the health and education sectors in India to understand how PPPs might usefully be applied for delivering sustainable and enhanced health care and education services was considered a crucial task.

A special task team comprising ADB staff and local and international health and education sector experts from KPMG was constituted. The team aimed to (i) develop an assessment of primary health care and primary education in the country, (ii) identify and assess local and international examples of PPP in health care and primary education, (iii) develop frameworks or tools to assess and evaluate the value-for-money (VFM) proposition from using PPP modalities, (iv) develop possible PPP structures that could serve as demonstration models for initial pilot projects to be undertaken, and (v) build awareness on possible PPP models within state governments so as to identify a possible pipeline of pilot projects.

Team Approach and Methodology

The team’s approach consisted of five phases:

Phase I: Consultation on Road Map

KPMG met with ADB and the Government of India in December 2007. Led and

coordinated by the Department for Economic Affairs (DEA), the meeting was attended by officials from the Ministry of Health and the Ministry of Education. KPMG provided an overview of key international models, followed by an interactive session on potential models and areas that this engagement could explore as part of state government consultations.

During this meeting, the focus areas for engagement were discussed, as follows:

- Health: Primary health care services in rural areas, diagnostic facilities, and hospital PFI models. The meeting excluded wider health reforms areas, such as developing teaching facilities for doctors and services, medicine dispensation, and disease control programs.
- Education: Primary and upper-primary education. Since established models for private sector participation already exist, the team agreed to exclude higher education and vocational training, teacher’s pay, curriculum, and examinations.
- The DEA confirmed that consultations were to be held with state governments from Andhra Pradesh, Orissa, Rajasthan, Tamil Nadu, and Uttarakhand. The focus of these consultations was to both understand the local PPP experiences from each of these states and to disseminate international PPP best practices to the state representatives.

To understand the current status of health and education provisions, key challenges, and PPP experiences, the team requested information

on health and education from each of the state governments. To supplement information received from the states, the team also obtained public documents and available statistics (Appendix 1).

Phase II: Consultations with Five State Governments and the Private Sector

After a preliminary analysis, the team conducted consultation visits (January and February 2008) with the five identified state governments where KPMG presented its international experience (especially that in the United Kingdom) of PPPs in health and education (available separately on request). Discussions focused on local PPP experiences and challenges for health and education sectors in the respective states.

To gauge interest and exchange ideas on proposed health care and education models, preliminary discussions were also conducted with private sector providers, including ICICI Lombard and Global Education Management Services (GEMS). Their feedback is incorporated in this report. Based on preliminary analysis and consultations, a draft report was prepared including next steps for developing a detailed framework and pilot projects. ADB led the development of the frameworks for analysis and evaluation of PPP modalities in projects.

Phase III: Dissemination of Preliminary Sector Assessments and PPP Case Examples—Consultation Meeting with Five States on ADB–KPMG Draft Report, Ahmedabad, 23 February 2008

The consultation workshop in Ahmedabad focused on disseminating initial findings from the ground research—including PPP examples, sector assessments, and draft framework development—to the five states. Feedback was generated and incorporated by the team into the draft report. The feedback led to further refining of the PPP analysis and evaluation framework tools. It also led the team to focus on the development of 5–6 model structures to be discussed with the governments as possible solutions to their needs.

Phase IV: Dissemination of Sector Challenges, PPP Frameworks and Models—All States Workshop, Panjim, 24 April 2008

A second workshop disseminated the draft final report to a larger body of invited states, of which 14 participated in a series of interactive sessions. The workshop focused largely on explaining and discussing the six PPP model structures developed by the team, and on interactive sessions with each state to develop a pipeline of possible pilot projects to be developed using some of these PPP models.

Phase V: Identification and Conceptualization of Pilot Projects, June 2008–November 2008

After the workshops, the team actively worked with the states that expressed interest in pilot project structuring. A number of projects have been converted into concept papers and detailed structuring has also commenced on some of these.

Framework for Public–Private Partnerships in Health and Education

A framework for PPPs in the education and health sectors is proposed in this section. The framework attempts to provide a comprehensive analytical basis for exploring opportunities for PPPs and to assess whether a PPP model is feasible, desirable, adds value, and has the economic and financial rationale to back it. Once a PPP idea goes through the preliminary assessment of this framework, further robust and rigorous empirical analysis should be undertaken to quantify the value-for-money proposition.

Social Sector versus Infrastructure

PPP is tested and utilized more frequently in the hard infrastructure (power, ports, roads, and others) sectors compared to social sectors. Hence, a number of PPP elements being tried out for social sectors—mainly education and health—are borrowed from the theoretical and practical experiences of hard infrastructure PPPs. Also, most hard infrastructure PPPs are from developed

economies that operate under more developed capital markets and much more predictable policy environments. An attempt to introduce PPP models from hard infrastructure to social sectors is fraught with risks as social sectors are significantly different from infrastructure sectors. To succeed, PPP models for social sectors should consider the peculiarities of each sector, especially the constraints, risks, and macroenvironment, including policy and fiscal commitments to their respective sector goals. Some features that distinguish social sectors from infrastructure sectors but have important implications on PPPs are as follows:

- **Cross-subsidy and bankability.** Unlike infrastructure PPPs—where a facility is mostly used both by the poor and the rich and a revenue model with sufficient cross-subsidy can be structured—the education and health services are vulnerable to segmentation between the public and private sectors (and the poor and the rich). As a result, the public sector may end up providing subsidized services to the poor and the private sector providing paid services to the rich who can afford private services (the rich accessing subsidized public services at the cost of the poor is also cited in the literature).
- **Incentives for the private sector.** Generating self-sustaining and bankable PPP models for education and health in the public sector may be limited due to the segmentation discussed above. Given the limited potential of health and education PPPs to earn third-party revenues, the government may need to allocate a budget to promote sustainable and bankable PPP programs within the health and education sectors.
- **Complex governance structures.** Primary and middle-school education is seen largely as responsibility of local governments—the third-tier government. Community involvement is also seen as key to ensuring demand for social services. Any PPP model in these sub-sectors will have to involve local governments and communities as key stakeholders in determining, managing, and monitoring PPP models.
- **Political sensitivity.** Occasionally, PPPs, especially where the private sector is given service delivery responsibilities, are considered politically difficult to implement in social sectors. Anticipating political sensitivities and ramifications, and developing communication strategies to prepare for the right political environment, could help sustain PPP initiatives and make them succeed.
- **Complex monitoring and evaluation systems.** The payment mechanisms in a social sector PPP will need to focus on monitoring the desired outcomes and allowing payment deductions and/or penalties if key performance indicators are not met (e.g., teacher absenteeism, access to health services for people below the poverty line, and others). Many of the current initiatives are not well-monitored and may not deliver expected benefits. In infrastructure PPPs, the performance parameters are much simpler and easier to monitor. Given the complex service delivery structures in social sectors, lack of baseline data on performance indicators may be a major barrier to structuring effective performance-based PPP contracts.
- **Human-resource intense.** Unlike in infrastructure, social sectors are very human-resource intense. This makes change in management more complicated. In an education department, the human resources required are huge. The sheer number gives immense political clout to key stakeholders to resist change, including the introduction of PPPs. Thus, if PPPs are viewed with suspicion in social sectors, they are likely to evoke serious political resistance from some of the established unions.
- **Operations and maintenance.** Unlike in infrastructure, the operations and maintenance costs as against initial capital expenditures are high in social sectors (e.g., salaries, medicines, teaching learning materials, and others).
- **Policies and ideologies.** School education is considered a basic human right, and PPPs could be misconstrued as government abrogating its responsibilities to provide universal elementary education, which could

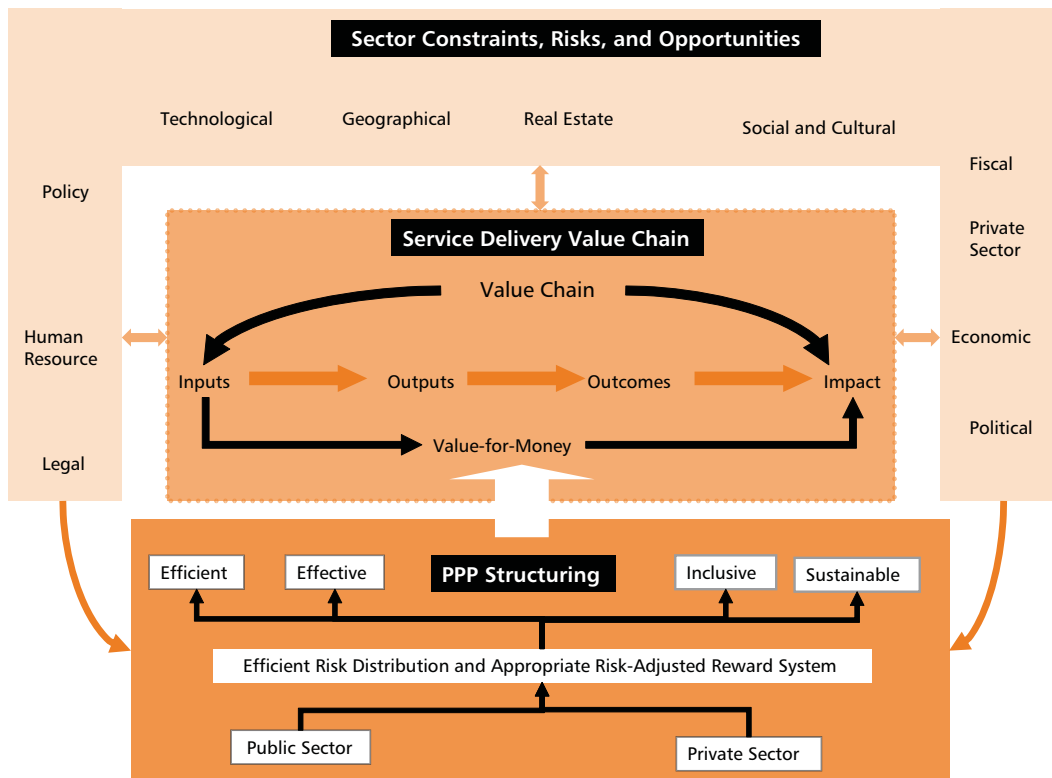
lead to uninformed and highly charged emotional protests from some stakeholders. Hence, proposed PPP models need to have strong economic and financial bases supported by solid data, which should be effectively and proactively communicated to all stakeholders. Though this can be true for hard infrastructure also, ideological biases are likely to be less resistant to change in hard infrastructure.

- **Value chain.** The first element is the input-output-outcome-impact value chain. "Inputs" to "outcomes" is the value chain.¹ Various inputs, through a value-adding process, leads to outputs and in turn into outcomes and/or impact. The key inputs are physical, human resources, and financial. However, some of the inputs are results of a complex value-chain process. In education, teachers are key inputs. However, effective teachers are produced through a value-chain process of pre- and in-service teacher training process. Pharmaceuticals are important inputs to a health system, but pharmaceuticals are outputs of a complex pharmaceutical industry

Public-Private Partnership Framework for Education and Health Sectors

Figure 1 gives an overview of the framework with its three distinct elements.

Figure 1: Framework for Public-Private Partnerships in Education and Health Sectors



PPP = public-private partnership.
Source: Sekhar Bonu, Asian Development Bank, 2008.

¹ The value chain is a series of activities where at each activity, the product gains some value. Porter, Michael E. 1985. *Competitive Advantage: Creating and Sustaining Superior Performance*. Manila.

value-chain process. Hence, while laying out the input-output-outcome-impact value chain, the comprehensive, complex, and interdependent nature of the value chain should be assessed.

- **Unlocking value.** A paradigm shift is required to unlock hidden values in the value chain. For example, schools and medical facilities established a few decades ago are located on prime real estate. There are ways to unlock the value of the real estate and human resources in the system. But there may be only limited opportunities to unlock values that are politically and socially acceptable. There is no harm in exploring opportunities for unlocking the value of the different assets of education and health systems that make economic and financial sense, but this must be politically and socially acceptable.
- **Sector constraints, risks, and opportunities.** This is the second element of the framework. A number of factors aggravate the constraints on, and/or risks in, the delivery of social services. Some of these constraints and/or risks are better managed by the public sector, while many are better handled by the private sector. The private sector may also be better equipped to “unlock” values hidden in the system. However, before allocating the risks between public and private sectors, it is important to list all constraints and/or risks so that the risks are properly allocated and priced, and rewards are commensurate to the risks assumed. Figure 1 lists some of the constraints, risks, and opportunities. Some of the constraints and/or risks are discussed below:

Health Sector

- In states and regions where health staffing is weak, the private sector’s presence to deliver primary health care will also be very weak. Hence, addressing human resource shortages in states like Uttarakhand and Orissa would be critical for ensuring scalable and sustainable PPPs.
- The health sector already has large and vibrant private sector presence—both in formal and informal markets. In some states, private sector provision of health care is as high as 70%. The health services market (to a great extent) and the education market (to some extent) have evolved into two distinct streams: private sector provision for those who can afford to pay for health and education services, and public sector provision for those who have limited means. The private sector provision that caters to the upper end of the market is already based on a self-sustaining revenue mode and is highly commercialized. The public sector provision that caters to the lower end of the market or to the poor has limited scope for revenue generation. This may limit the scope for models based on cross-subsidy.
- Where public sector primary health care center (PHC) provision is perceived as of poor quality, people tend to bypass public PHCs and instead seek care from formal and informal private health providers. Poor supervision, politicization of personnel, unionism, lack of appropriate skills, and shortage of personnel are some of the reasons for a less-effective public sector. Many of these factors add additional risks to social sector PPPs, which are risks not observed in hard infrastructure.
- The public sector is generally seen to be less effective in demanding situations such as the provision of care in remote and backward areas, reaching the poor, and serving handicapped clients. The PPP models could offer more effective ways to reach these hard-to-reach population subgroups.
- The integration of information and communications technology (ICT) for improving health service provision is of different scale in different states. For example, in Andhra Pradesh, ICT has been effectively used to improve emergency ambulance services,

catastrophic health insurance, and help lines. This is possible as there are ICT firms willing to do social work as part of their corporate social responsibility, and a government willing to seek new collaborations and try new innovations. The gap between advanced states and less-advanced states, and between rural and urban areas, in the use of ICT to enhance social service provision can be bridged and accelerated by PPPs.

- The dual role of preventive and curative care by rural health services creates a peculiar dilemma for PPPs. Preventive health care is largely a public good, where benefits extend beyond individuals who obtain services (e.g., immunization of 80% of the population can give herd immunity that can protect the remaining 20% unimmunized population), and hence, less acceptable for user fees and as a revenue-generation model. Curative health care, however, is more amenable to user fees and revenue-generation model as the benefits are largely private (although treatment of communicable diseases can benefit others, the individual with disease, however, has more acute need to get treated—fever, pain, and others).

Education Sector

- Basic primary education is generally viewed as a public sector's responsibility, which makes any shared involvement of public and private sectors a highly sensitive issue. Transfer of user fees to private sector providers is sensitive, especially in basic education. Even more sensitive is the management of public education institutions by the private sector. PPPs can be used by unions and opposition as pretext to claim that government is abandoning its core task of providing public education.
 - High teacher absenteeism, reaching 30% in some states, is a major education service delivery challenge. Even where teachers are present in classrooms, their effectiveness in transmitting knowledge and skills to achieve minimum levels of learning for specified class still needs to be improved.
 - Strong presence of unions with strong links to political parties is likely to affect the introduction of PPP as the unions may protest certain changes in the system.
 - Even though teachers in the public sector are being paid more than those in the private sector, their motivation is low. This results in a lack of quality of teacher output. Salaries are not performance-based. Hence, increasing salaries is expected to have limited impact without the accountability and performance system in place.
 - While some states have developed their own PPP policy or framework, this is absent in other states, reflecting a lack of capacity and direction with regard to PPP.
 - Unfamiliarity with PPP necessitates capacity building of players in the public system to (i) negotiate reasonable contracts with the private sector, (ii) work in collaboration with private partners, and (iii) perform monitoring and evaluation of private partners.
- **Structuring PPP for value-for-money proposition.** The third and final dimension of the framework is the PPP structuring. Sector constraints and/or risks affect the input-output-outcome-impact value chain through a complex but interdependent process. In the traditional system of social service provision, the model has been public financing and public provision. This model has largely delivered suboptimal results. So, there is immense opportunity to extract more value for public expenditures, which could benefit the poor. By producing more efficient results, PPPs indirectly can expand the fiscal position of the government.
 - As efforts for a new PPP paradigm for delivery of more effective, efficient, and inclusive social services are explored, the third dimension of the framework must also be examined. The third dimension provides, among others, the evaluation framework for a social sector PPP.

- Various constraints and/or risks impede sector inputs from realizing maximum impact. Some of these are better managed by the public sector, but many of the risks and/or constraints are better managed by the private sector. By properly allocating the risks and/or constraints between public and private sector, it is theoretically possible to extract maximum value for money.
 - Value for money in social sectors needs to be examined through economic, financial, and other dimensions. In the economic dimension, the risk distribution should lead to maximum efficiencies and effectiveness without compromising equity. The PPP model that emerges from appropriate risks and/or constraints allocation should be financially sustainable and fiscally prudent.
 - Inclusiveness is a key political and policy commitment in social sectors. Hence, an evaluation framework for social sector PPPs needs to carefully consider the implication on inclusiveness, and the PPP contracts need to have effective and binding provisions for ensuring inclusiveness of the PPP model.
 - The result of the exercise is to assess whether a PPP model provides better value for money.
- While the framework gives theoretical and conceptual basis, the evaluation of PPP model would need hard data to assess the value for money in terms of the defined outcomes and impact. This is by no means an easy task, given the poor quality baseline data available. Strengthening baseline output, outcome, and impact indicator estimates is essential for deriving a more robust value-for-money analysis.

Evaluation Framework

During the evaluation exercise, the team was required to evaluate several PPP models proposed by the state governments or those models already implemented within their regions. Based on the concept of the service delivery value chain (Figure 1), the team also developed an evaluation framework for PPPs that would allow for measuring a proposed PPP project's characteristics according to the following criteria:

- Effectiveness, i.e., the ability of the program to meet its original objectives. An important element of this assessment involves clarity of the objectives and ability to measure success through identified and measurable outcomes.
- Efficiency, i.e., evaluating a program's cost-effectiveness in achieving its objectives. It compares financial consequences to the public sector against risk transfer achieved.
- Equity, i.e., evaluating whether benefits accrue to those with low income and at sub-poverty level, and targeted sectors of society, and does not subsidize services to the rich.
- Financial sustainability, i.e., a program's financial viability, including financial returns and private sector interest in program delivery.

The evaluation framework (Table 3) elaborates various questions and issues for consideration by the public sector and was used to assess existing PPP models. It is recommended that

Conclusion

- The framework proposes that the first step is to lay out the value chain that leads inputs to outcomes and impact. Here, the complex, interrelated value chains need to be fully considered. The next step is to examine the sector constraints and/or risks at different levels of value chain. The last step is to allocate the risks between the public and private sectors according to their abilities to handle the risks most efficiently.
- Once the risks are allocated, risk-adjusted rewards need to be determined. Whether or not the risk-adjusted rewards create value for money for public expenditure, this still needs to be explored from the economic and financial rationale.

the framework be utilized for evaluating all PPP models by each sponsor government.

and in some cases, evaluate affordability and performance standards and quantify outcomes.

The evaluation framework should be revisited on a regular basis during the development phase of any PPP model. Such review will enable the public sector to highlight areas that need attention when the program begins procurement. As the public sector progresses in developing its business case, it would be in a position to evaluate questions in more detail

No detailed financial and economic feasibility analysis for existing PPPs was conducted but rather projects were scored as high, medium, or low impact based on the evaluation framework. The evaluation is largely based on the feedback received during the consultation exercise and high-level discussions with selected private sector providers.

Table 3: Evaluation Framework

Evaluation Parameters	Questions to be Considered
A. Effectiveness	
Level of success in meeting its objectives	<ul style="list-style-type: none"> • Has the procuring authority clearly delineated the outcome it would like to achieve through the program and the standards for service provision? • Do the needs of the sector match the proposed outcomes? • Have outcomes improved? What is the level of improvement?
Effectiveness in monitoring the delivery of the program	<ul style="list-style-type: none"> • Does the program describe service provisions in terms that are clear, objective, and measurable? • Can service provision be assessed against an agreed standard? Do mechanisms allow regular evaluation? • Does the payment mechanism provide incentives that encourage private providers to meet delivery standards? • Is the private sector responsible for improving outcomes?
Scalability	<ul style="list-style-type: none"> • Does the program consider total costs, i.e., construction, operating, and maintenance? • Is there sufficient interest from private providers to build a pipeline of projects? • Can the public sector provide sufficient financial and management resources to procure more projects? • Does the program provide an economic return to the private sector?
Local stakeholder buy-in	<ul style="list-style-type: none"> • Does the program involve local stakeholders, e.g., panchayats (elected Committees of Villagers), in the procurement from private sector providers? • Is there a consultation before and during procurement to incorporate and address local concerns and requirements?

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Table 3: *continued*

Evaluation Parameters	Questions to be Considered
B. Efficiency	
Value-for-money analysis	<ul style="list-style-type: none"> • Does the current model transfer risk to the private sector effectively, particularly time and cost overruns for large construction projects? • How does the program compare with other options available to the public sector? • Does the contract provide sufficient operational flexibility (at an acceptable cost)?
Affordability (public sector support)	<ul style="list-style-type: none"> • Is the program within current and future spending allocations of the central and state procuring authority?
Cost of developing the monitoring mechanism	<ul style="list-style-type: none"> • Does the public sector require a wider mechanism outside the contract to monitor progress?
C. Equity and Political Considerations	
Ability to benefit the poor and not subsidize the rich	<ul style="list-style-type: none"> • Does the program benefit the sector of the society targeted by the program, i.e., those below poverty line or those in rural communities? • Does the program subsidize public service provision to higher income groups, thereby crowding out services available to the poor?
Political resistance	<ul style="list-style-type: none"> • Is there sufficient political will to undertake the reforms required to implement the program? • Does the program affect unions or other organized groups?
Need for wider public sector reforms	<ul style="list-style-type: none"> • Will existing regulatory or legal restrictions affect service provision under the contract? • Does the program require wider reforms related to finance and accounting, transfer of personnel, and introduction of user charges?
D. Financial Sustainability	
Economic return to private sector	<ul style="list-style-type: none"> • Do the revenues accruing to private companies allow economic return on capital investments? • Is it possible to generate third-party revenues alongside the government payments received for public service management? • Is financial return to private companies commensurate with risk transfer?
Financing risk	<ul style="list-style-type: none"> • Can private providers raise funds for participation in the program?
Private sector appetite and capability	<ul style="list-style-type: none"> • Is there adequate financial, technical, and management capability within the private sector to deliver the services under the program? • Have private companies indicated interest in working with the public sector?

Source: Authors.

Overview of Global Public–Private Partnership Practices

Introduction

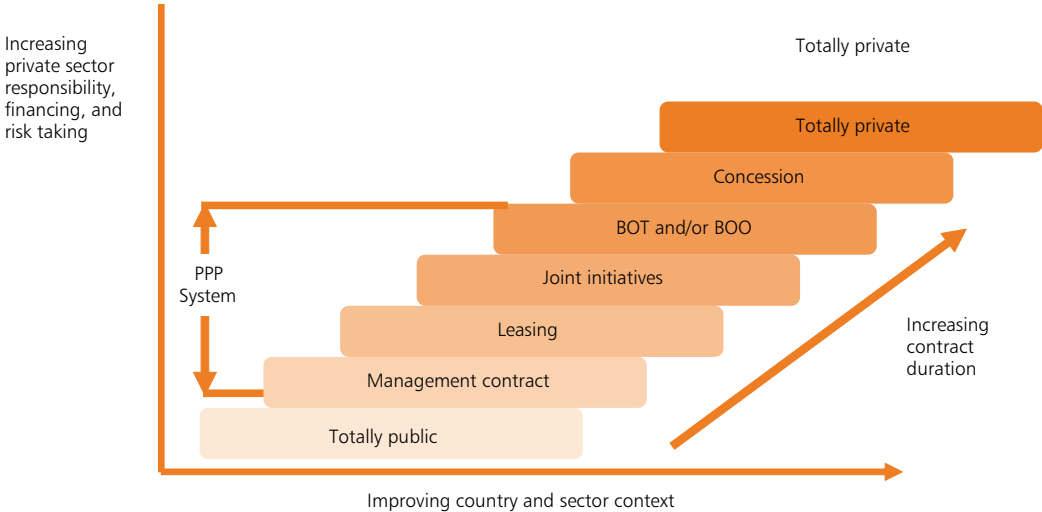
Public–private partnerships (PPPs)—also known as private finance initiatives (PFIs), PPP/3P, and alternative financing procurements—have been used increasingly to deliver public services across countries.

PPPs or PFIs are viewed frequently as alternatives to traditional procurement through engineering, procurement, and construction (EPC) contracting, whereby the public sector conducts competitive bidding to create separate contracts for the

design and construction elements of the capital project. The public sector retains ownership of the asset and is responsible for financing the initiative. PPPs or PFIs allow the public sector to harness the management and delivery capabilities of private providers and also raise additional funds to support specified services. The rationale for choosing PPP over traditional contracting is discussed in the following section.

Depending on the degree of private involvement and the use of private finance, PPP risk-transfer arrangements can vary across the risk-return spectrum (Figure 2).

Figure 2: Public–Private Partnership Modalities and Trends



BOO = build–own–operate, BOT = build–operate–transfer, PPP = public–private partnership.
Source: ADB documentation.

Private Finance Initiatives

PFI are possibly the most popular form of PPP in many countries, such as the United Kingdom and Australia. A typical PFI arrangement includes the following:

- Public sector contracts to purchase services from private companies on a long-term basis, often 15–30 years.
- Under the contract, companies construct and maintain infrastructure to deliver required services.
- The contract is typically delivered through a special purpose vehicle that uses private finance (a mix of equity and limited-recourse debt) to fund initial construction works.
- The special purpose vehicle collects a fee—often referred to as the unitary charge—that covers principal and interest payments, the cost of any required facilities management service, and an economic return to the private provider.
- The unitary payments will be at risk to the contractor’s performance during the life of the contract, i.e., payment decreases if performance falls below required standards. Thus, the private sector receives incentives to deliver services on time, on budget, and up to required standards.

- Public and private risk allocation is well understood and documented, i.e., private providers bear the cost of overruns, delays, and standard service risks.

Table 4 defines other terminologies commonly applied to PFI contracts.

PFI is only one of many PPP arrangements that also include long-term service contracts and the construction of privately financed assets and infrastructure.

A simplified PPP structure is shown in Figure 3.

In this report, PPP under a not-for-profit model or a corporate social responsibility initiative is not classified as PPP model, mainly because the private sector does not seek an economic return on its investment in the project.

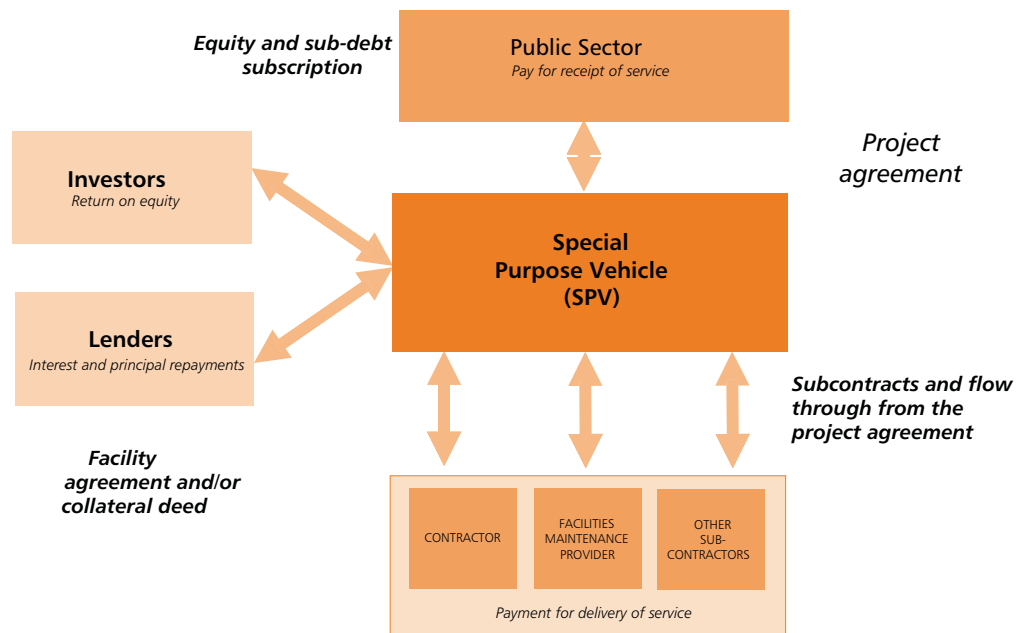
During the consultation exercise, the team was made aware of several state government initiatives with private providers that would be classified as not-for-profit or corporate social responsibility initiatives. In KPMG’s view, these are not financially sustainable models that may be developed into wider PPP programs. Such models do not provide an incentive to the private sector on service delivery and there is no access to private finance in the arrangement.

Table 4: Private Finance Initiative Contracts and the Type of Services under Contract

Design–Build	The public sector contracts with a single private provider for both design and construction. In this manner, government often can benefit from economies of scale and transfer design-related risk to the private sector.
Design, Build, Operate	The public sector contracts with a private provider to design, build, and operate the capital asset. The public sector remains responsible for raising required capital and retains ownership of the facility.
Design, Build, Finance, Operate	The public sector contracts with a private provider to design, build, finance, and operate (DBFO) the capital asset. This model typically involves long-term concession agreements. The public sector has the option to retain ownership of the asset or lease the asset to the private sector for a period of time. This type of arrangement is commonly known as a private finance initiative (PFI).
Design, Build, Own, Operate	A private provider assumes responsibility for all aspects of the project. The ownership of the new facility is transferred to the private provider, either indefinitely or for a fixed period of time. This type of arrangement also falls within the domain of a private finance initiative. This arrangement is also known as “build, operate, own, transfer” or BOOT.

Source: Authors.

Figure 3: Simplified Public–Private Partnership Structure



Source: KPMG research.

Rationalizing Public–Private Partnerships and Private Finance Initiatives

The main reason for using PPPs is that they provide value for money (VFM), that is, better accountability for delivery of service than traditional delivery models within the public sector. In the United Kingdom, Her Majesty’s Treasury² defines value for money as the optimum combination of whole-of-life costs, i.e., maintaining an asset for its expected life span and quality (or fitness for the purpose) of the good or service to meet the user’s requirement. PPPs also provide detailed methodology for assessing VFM, through a quantitative and qualitative analysis, which the public sector is required to undertake at different stages of the procurement. The VFM concept compares

different procurement options and measures the value of each, factoring in aspects such as time, cost overruns, and others. It is not about selecting the procurement option that provides the lowest bid. It evaluates the bid in relation to overall viability, desirability, and achievability of procurement options.

A purely quantitative analysis measures VFM for a PFI or PPP contract by comparing the net present cost of payments made under the PPP contract with the net present cost of the public sector comparator, that is, the cost of the project if procured traditionally, including risk pricing. However, in addition to quantitative analysis, a PFI or PPP requires qualitative assessment such as ability to meet set outcomes, flexibility in the program, private sector appetite, and capacity and ability of the public sector to procure and manage the contract.

² United Kingdom’s equivalent of economics and finance ministry.

Allocating and Sharing Risk

Degree of risk transfer achieved through contractual structure provides a key parameter for evaluating PPP programs. The basis of risk transfer involves risk borne by the party best able to manage the risk.

Table 6 shows a typical risk matrix as defined and allocated in a typical PFI transaction. The public sector must evaluate risk for each PFI transaction; it is possible to contract out and share the risk between private and public sectors.

Table 5: Undertaking Value-for-Money Analysis

- Focus on an asset’s whole-of-life costs rather than upfront costs only.
- Integrate the planning and design of the facilities-related services by assessing early if the integration of asset and non-asset services would deliver value-for-money (VFM) benefits.
- Use an output’s specification approach to describe the public sector’s requirements, thus, allowing potential bidders to develop innovative approaches to satisfy the service needs of the procuring authorities.
- Have sufficient flexibility to ensure that any changes in the original specification or requirements of the procuring authority, and the effects of changing technology or delivery methods, can be accommodated during the life of the project at reasonable cost and ensure overall VFM.
- Have sufficient incentives within the procurement structure and the project contracts to ensure that assets and services are developed and delivered in a timely, efficient, and effective manner.
- Determine the term of the contract with reference to the period over which the procuring authority can reasonably predict the requirement of the services being procured.
- Manage the scale and complexity of procurement to ensure that procurement costs are not disproportionate to the given project.

Source: Value for Money Assessment, Her Majesty’s Treasury. www.hm-treasury.gov.uk

Table 6: Standard Risk Allocation Matrix Between Public and Private Sectors

Risk Heading	Definition	Allocation			
		Public Sector	Private Sector	Shared	
1. Design Risks					
1.1	Failure to design	Failure to translate project requirements into the design.		✓	
1.2	Ongoing design development	Design details should be developed within an agreed framework and timetable. Failure to comply may lead to additional design and construction costs.		✓	
1.3	Change in public requirements of design	The public may require design changes, leading to additional design and construction costs.	✓		
1.4	Change in design required by private sector participation	The risk that the operator will require design changes, leading to additional costs.		✓	

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Table 6: *continued*

	Risk Heading	Definition	Allocation		
			Public Sector	Private Sector	Shared
1.5	Change in design due to external influences	The risk that the design will need to be changed due to legislative or regulatory changes.			✓
1.6	Failure to build according to design	Misinterpretation of a design or failure to build based on specification may lead to additional design and construction costs.		✓	
2. Construction and Development Risks					
2.1	Incorrect time estimate	The time taken to complete the construction phase may be different from the estimated time.		✓	
2.2	Unforeseen ground and/or site conditions	Unforeseen ground and/or site conditions may lead to variations in the estimated cost.			✓
2.3	Unforeseen ground and/or site conditions under the footprint of existing facilities	Additional costs if the private sector is unable to carry out necessary surveys prior to commencing work because facilities are currently occupied.	✓		
2.4	Delay in obtaining access to the site	Delay in access may delay the entire project.	✓		
2.5	Maintaining on-site security	Theft and/or damage to equipment and materials may lead to unforeseen replacement costs and delay.		✓	
2.6	Maintaining site safety	Construction, design, and management regulations must be complied with.		✓	
2.7	Third-party claims	Costs associated with third-party claims, such as loss of amenity and ground subsidence on adjacent properties.	✓		
2.8	Relief event	Any event that may delay or impede the performance of the contract and cause additional expense. Occurrence of relief events lead to a monetary relief for the private party.			✓
2.9	Delay event	Any event that may delay or impede the performance of the contract and cause additional expense. Occurrence of delay events lead to a time relief for the private party.			✓
2.10	Force majeure	An unforeseen or uncontrollable event that results in additional costs. Facilities may also be unavailable.			✓
2.11	Termination due to force majeure	The risk that a force majeure event will mean the parties are no longer able to perform the contract.	✓		

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Table 6: *continued*

	Risk Heading	Definition	Allocation		
			Public Sector	Private Sector	Shared
2.12	Legislative and/or regulatory change	A change in legislation and/or regulations leading to a change in requirements and variations in costs.	✓		
2.13	Changes in taxation	Changes in taxation may affect the cost of the project.	✓		
2.16	Contractor default	In case a contractor defaults, additional costs may be incurred in appointing a replacement and may cause a delay.		✓	
2.17	Poor project management	The risk that poor project management will lead to additional costs, e.g., if subcontractors are not well coordinated, one subcontractor could be delayed because the work of another is incomplete.		✓	
2.18	Contractor and/or subcontractor industrial action	Industrial action may cause the construction to be delayed, thus, incurring additional management costs.		✓	
2.19	General vandalism	General vandalism on the project may incur additional costs, such as security costs.			✓
2.20	Student vandalism (in-school PFI)	Student vandalism on the project may incur additional costs, such as security costs.			✓
2.21	Incorrect time and cost estimates for commissioned new building	Estimated costs of commissioning new buildings may be incorrect; there may also be delays leading to further costs.		✓	
3. Performance Risks					
3.1	Latent defects in new building	Latent defects in the building's structure, which require repair and may become apparent only after a time.		✓	
3.2	Change in specification initiated by the public sector	There is a chance that during the operating phase of the project, the public sector that is procuring the services will require changes in the specification.	✓		
3.3	Performance of subcontractors	Poor management of subcontractors can lead to poor coordination and underperformance by the contractors. This may create additional costs in the provision of services.		✓	
3.4	Default by contractor or subcontractor	This may require emergency provisions and replacement costs.		✓	
3.5	Industrial action	This may lead to higher costs and/or performance failures.		✓	

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Table 6: *continued*

			Allocation		
			Public Sector	Private Sector	Shared
Risk Heading	Definition				
3.6	Failure to meet performance standards	This may increase costs and incur financial penalties.		✓	
3.7	Relief event	This may delay or impede performance of the contract and increase expense.			✓
3.8	Availability of facilities	The risk that some or all of the facilities will not be available for the intended use. There may be cost involved in making the facilities available.		✓	
3.9	Force majeure	This may increase costs as facilities may be unavailable.	✓		
3.10	Termination due to force majeure	The risk where an event of force majeure will mean the parties are no longer able to perform the contract.	✓		
4. Operating Cost Risks					
4.1	Incorrect cost estimate for providing specific services within market-testing periods	Actual cost may differ from projected cost due to unexpected changes in the cost of equipment, labor, utilities, and other supplies.		✓	
4.3	Legislative and/or regulatory changes having capital cost consequences	This may lead to additional construction costs and higher building, maintenance, equipment, or labor costs.			✓
4.4	Change in taxation	The scope and level of taxation will affect the cost of providing services.	✓		
4.6	Incorrect cost estimate of maintenance	The cost of building and engineering maintenance may be different from the expected costs.		✓	
4.7	Incorrect cost estimate of energy used	Failure to meet energy efficiency targets or to control energy costs.		✓	
5. Variability of Revenue Risks					
5.1	Nonperformance risks	Public sector pays only for services received.		✓	
5.2	Poor performance of services	The operator will incur deductions from the performance payment for the poor performance of services.		✓	
5.3	Changes in the allocation size of resources for the service provision of the public sector	The risk that resources allocated to the sector are reduced or increased. If such changes occur, there may be a need to rescale the provision of services.	✓		

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Table 6: *continued*

Risk Heading	Definition	Allocation			
		Public Sector	Private Sector	Shared	
5.4	Changes in the volume of demand for services	The risk that the volume of demand for school availability will change during the summer period or due to change in local demographics.	✓		
6. Termination Risks					
6.1	Termination due to default by the public sector	The risk that the public sector defaults on its nonfinancial commitments, leading to contract termination and compensation for the private sector.	✓		
6.2	Default by the operator leading to step-in by financiers	The risk that the operator or individual service providers would default and financiers need to step in, leading to higher costs than agreed in the contract.		✓	
6.3	Termination due to default by the private sector	The risk that the operator defaults and step-in rights are exercised by financiers but that they are unsuccessful, leading to contract termination.		✓	
7. Technology and Obsolescence Risks					
7.1	Technological change and/or asset obsolescence	Building, plant, and equipment may become obsolete during the contract.		✓	
8. Residual Risk					
8.1	The public sector no longer requires the assets at the end of contract	The risk that the procuring entity will wish to vacate the asset at the end of the contract period, and that the operator may be faced with decommissioning costs.	✓		
9. Other Project Risks					
9.1	Incorrect cost estimates for planning approval	Estimated cost of receiving detailed planning permission is incorrect, including the cost of satisfying unforeseen planning requirements.		✓	
9.2	Delay in planning approval	A delay in receiving planning permission may have broader cost implications for the project, including loss of potential savings.			✓
9.3	Noncompliance with safety related to sector	Noncompliance with health regulations may result in cost and service delivery implications to the project.			

Source: Authors.

The team recommends detailed risk analysis of any PFI or PPP arrangement. Risk sharing and allocation requires evaluation and reevaluation during the procurement process, in line with the progress in procurement and in developing

contractual arrangements. Each PFI arrangement will have its own unique risk-sharing mechanism, based on proposed project characteristics and delivery mechanisms. The public sector must be constantly aware that the risk-sharing

matrix will significantly influence pricing in a PFI contract and this should be kept in mind while proposing, negotiating, and finalizing the risk-sharing arrangement and, consequently, its value-for-money analysis.

Health Public–Private Partnerships

Experience with Public–Private Partnerships (United Kingdom)

The health sector has represented a significant investment market for PPPs since the inception of PFI in 1992. Three key health PPP procurement programs in the United Kingdom (UK) are all driven by a range of different public sector requirements, policy initiatives, and outcomes—PFI hospitals, National Health Service (NHS) local improvement finance trust (LIFT), and independent sector treatment centers (ISTCs).

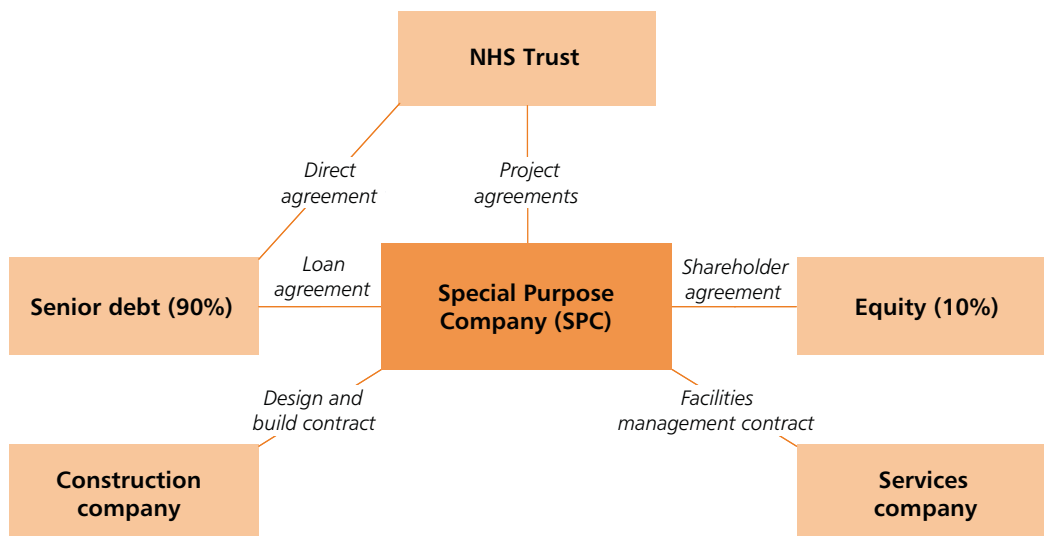
Private Finance Initiative Hospitals

The Government of the United Kingdom introduced PFI to increase private financing

of public sector capital projects and to encourage closer partnerships between the public sector and private providers. The government recognized the need to replace the ageing and generally inadequate hospital infrastructure, much of which was built in the early 1900s.

The government lacked sufficient resources to finance a significant hospital capital investment program, so PFI or PPP was developed as a method of delivering new infrastructure by using private finance. Typically, a PPP hospital project is procured on the basis of a design, build, finance, and operate (DBFO) model, wherein the NHS Trust pays private providers an annual unitary charge, over 25–30 years, to cover initial construction costs and ancillary nonclinical services such as building maintenance, cleaning, catering, and laundry. The Trust specifies the services it needs, leaving private providers to determine, through a competitive bidding process, how best to deliver the hospital project. Figure 4 illustrates a typical hospital structure under a PPP.

Figure 4: Typical Hospital Structure under Public–Private Partnership



NHS = National Health Service.

Source: KPMG research.

PPPs have delivered more than 50 new hospitals in the UK, with a capital value in excess of £3.5 billion. PPPs transferred risk to the party best able to manage it, a practice that should deliver the best value-for-money outcome. Responsibility for delivering clinical services remains with NHS, and the NHS Trust pays the unitary

charge, thus preserving the NHS cornerstone that health services are free to the patient at the point of delivery. Payment of the unitary charge is conditional upon delivery of Trust-required services by private providers and only commences following satisfactory completion of the hospital.

Case Study 1: Darent Valley Hospital, Kent, United Kingdom

General description

- Darent Valley was the first private finance initiative (PFI) hospital contract in the United Kingdom (UK). Construction of the 400-bed facility (extended later to 498 beds) was completed in 2000 at a capital cost of £140 million.

Services delivered

- The PFI contractor provided a range of hard and soft facilities management services, including estate management, catering, housekeeping, cleaning, and security.

Contract terms

- Original contract covered 28 years, including a 3-year construction period, and was subsequently extended to 35 years following refinancing.
- Following consultation with trade unions, all hospital support staff involved in delivering facilities management services transferred to the PFI contractor. In the UK, Transfer of Undertaking (Protection of Employment) Regulations 1981 (TUPE) protect the rights of staff who transfer from the public to private sector.
- The net present cost of the contract over the original term was £241 million (discounted at 3.5%), which increased to £252 million for the extended contract following refinancing. However, refinancing generated an initial lump sum payment (£1.5 million), lowering the annual contract price by £2 million.
- The cost of the facilities management services is benchmarked every 5 years and the NHS Trust has the option to competitively tender the services if the parties are unable to agree on the revised price.
- Payment mechanism was based on timely completion of the hospital and potential penalties were weighted according to areas most critical to patient care. The PFI contractor could lose up to 100% of its payment if the project was not delivered on time.

Bidding process

- This was advertised in the Official Journal of the European Union, with a pre-qualification process based on financial and technical criteria, followed by a competitive tendering process.

Outcomes

- The hospital was completed 2 months ahead of schedule and on a budget under a fixed-price design and build contract. The NHS Trust's ability to use the hospital before the contracted payments began resulted in an estimated benefit of £2 million.
- Service delivery overall was satisfactory, with a low level of payment deductions.
- NHS Trust shared in the financial benefit generated from the PFI contractor's refinancing.

Source: KPMG.

National Health Service Local Improvement Finance Trust

The national health service local improvement finance trust (NHS LIFT) provides a vehicle for improving and developing first-rate primary and community care facilities. It allows primary care trusts (PCTs) to invest in new premises in new locations and offers modern and integrated high-quality health services to patients. LIFT has provided a range of building types including general practitioner premises, one-stop primary health care centers, integrated health and local authority service centers, and community hospitals.

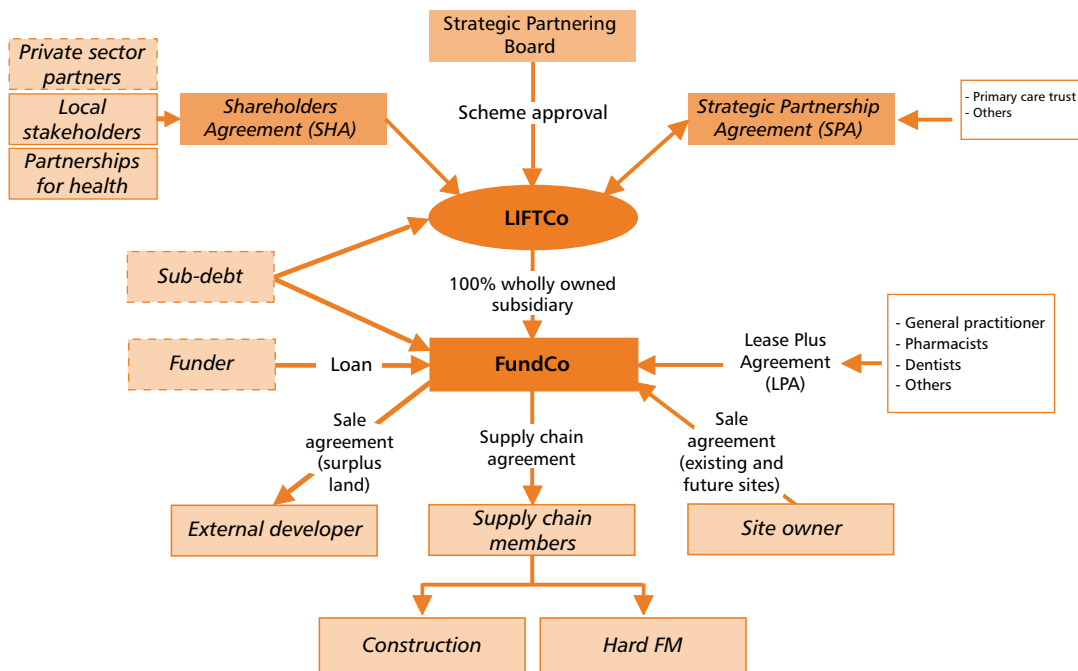
The Department of Health and Partnerships UK established a joint-venture company, Partnerships for Health, which was responsible for delivering LIFT projects in partnership with local health centers through the establishment of a LIFT company (known as LIFTCo). The LIFTCo is a limited company wherein local NHS and Partnerships for Health representatives and the

private provider are shareholders. It owns and maintains the building and leases the premises to PCTs, general practitioners, the local social services authority, dentists, pharmacists, and others. To protect public interest, local PCTs are shareholders in the LIFTCo. The LIFTCo has a long-term partnering agreement to deliver investment and services in local care facilities (Figure 5).

The NHS LIFT approach provides several benefits. It establishes a long-term sustainable relationship focused on delivering primary care investment and services, and it involves private companies where they can add the most value. Most important, NHS LIFT provides investment in modern integrated primary care services—in areas where patients most need such services.

The UK currently has 50 NHS LIFT schemes. Procurement is now in its fourth wave, representing an investment of approximately £1 billion in primary care facilities.

Figure 5: Typical National Health Service LIFT Structure



Hard FM= Hard Facilities Management.

Source: KPMG research.

Case Study 2: Delivering Primary Health Care

General description

- Located close to major urban train stations, commuter walk-in centers provide nurse-led primary care services with general practitioner support by private sector providers. These centers focus on providing services to patients who currently find it difficult to see a general practitioner during regular working hours.

Services delivered

- Services provided were broadly similar to National Health Service general practitioner and/or primary care services, including treatment for minor illnesses and injuries.

Contract terms

- It was funded initially by the Department of Health for a 3-year period.
- It is open Monday–Friday between 7:00 a.m. and 7:00 p.m. with a capacity to treat 180 patients per day (150 in non-London locations).
- Payment is linked to the number of patients treated, with a guaranteed fixed element and a variable element per patient.
- Payments are not made if key performance indicators are not met.
- Performance is monitored on a regular basis by a central contract management unit with an agreed review process for investigating performance failures.

Bidding process

- Fully priced competitive bidders are invited from the list of pre-qualified contractors who meet the minimum evaluation criteria.

Outcomes

- Provided access to primary care facilities across seven major train stations at convenient times, with no need for a prior appointment.
- Provided free services to all patients, except where a National Health Service general practitioner would charge for the same services.

Source: KPMG.

Independent Sector Treatment Centers

Independent sector treatment center (ISTC) procurement was introduced as part of a major government initiative to reduce waiting time within NHS and to provide a choice for patients. It is also intended to support the shift in health services from secondary to primary care and promote innovative service delivery models.

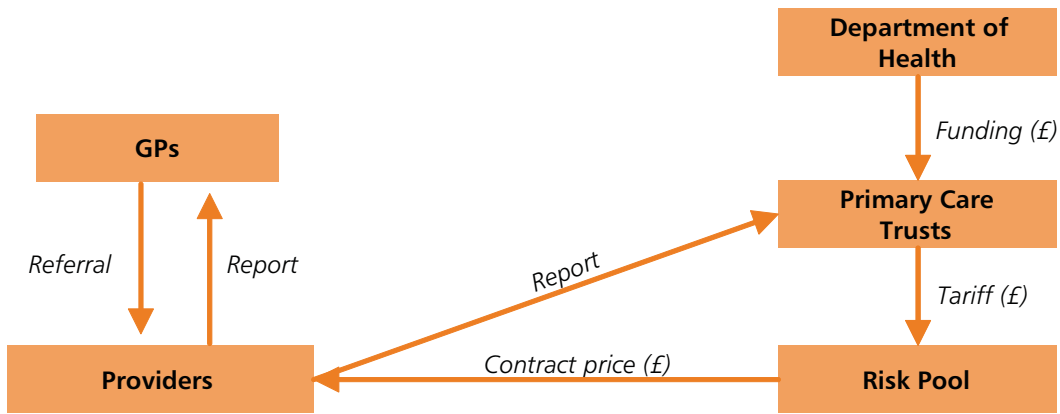
The first wave of ISTCs had 23 fixed sites and focused on elective services. In addition, 12 mobile magnetic resonance imaging (MRI) units, 1 mobile ophthalmology unit, and 6 NHS walk-

in centers provided general practitioner services. Phase 2 procurement in May 2005 comprised elective and diagnostics procedures.

Figures 6 and 7 show the typical funding flow and the contract structure of ISTC.

In an ISTC, private health care providers deliver a fully managed clinical service—including facilities, equipment, staff, and consumables—that treats NHS patients on behalf of the Department of Health. Care and treatment is free to NHS patients and the level of service is at least as good as that delivered by NHS facilities.

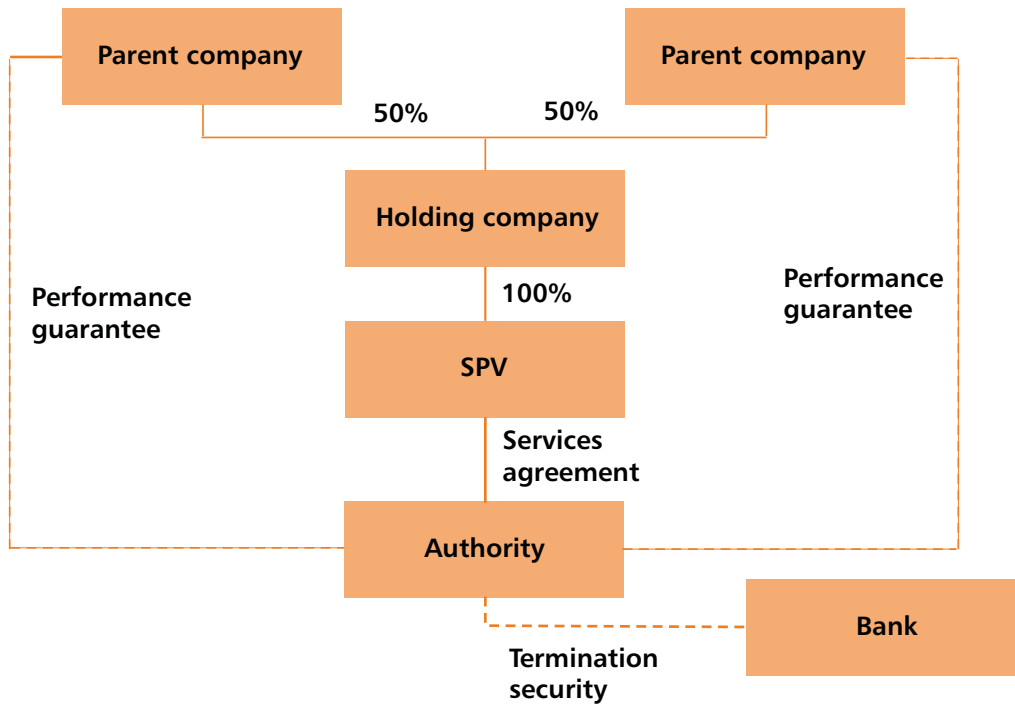
Figure 6: Typical Funding Flow of Independent Sector Treatment Centers



GPs = general practitioners.

Source: KPMG research.

Figure 7: Typical Contract Structure of Independent Sector Treatment Centers



Source: KPMG research.

The Department of Health pays the ISTC provider for each completed activity (e.g., knee replacement, magnetic resonance imaging scan), with a fixed price for each unit of activity. This unit price comprises a

base cost and an activity cost, which reflect the provider's fixed and variable costs. The provider assumes an element of demand risk over the 5-year contract period, as the guaranteed element of its base cost reduces

over time. Payment is made only for every activity that is completed.

More than 580,000 patients have been treated since the ISTC program began in 2003³ and services are available to all NHS patients. ISTCs have significantly contributed in achieving the target of a maximum wait of 18 weeks from referral to treatment and have introduced new and innovative ways of delivering health care services to NHS patients.

However, ISTCs are not without pitfalls. Although the demand during the first wave of the program was reasonable, it was significantly below what was projected. Thus, some elective services launched in Phase 1 were seriously underutilized and became financially unviable.

This led to questions about the program's projection and planning exercise. Also, as the

providers bore some of the losses due to the lower demand, they were not enthusiastic about Phase 2 of the program. A combination of these factors has stalled this program.

Public–Private Partnerships for Education

Public–Private Partnership Experience (United Kingdom)

Education played a key role in developing PFI and PPP techniques in the United Kingdom (UK), which has the most mature PFI or PPP education market worldwide. The use of PFI—typically structured as design, build, finance, and operate (DBFO) contracts—began in the mid-1990s with individual school projects. Typically, such projects involved redevelopment (new build) of a single school, often on a

Case Study 3: Mobile Ophthalmology Chain

General description

- Ophthalmology services are provided from mobile units operated by Netcare UK that visit more than 25 locations and will perform over 44,000 procedures over the 5-year contract term.

Services delivered

- Treatment of cataracts for National Health Service (NHS) patients and post-operative care.

Contract terms

- 5-year contract, operating 6 days per week, and 50 weeks per year.
- Care pathway based on NHS and Royal College guidelines for cataract surgery.
- Payment guaranteed irrespective of the number of patients treated, as the private sector provider has limited ability to control demand.
- Payment deductions applied if key performance indicators are not met.

Bidding process

- Pre-qualification process with minimum clinical and financial criteria, followed by competitive bidding.

Outcomes

- Delivery of high-volume surgery procedures without compromising patient safety and experience.
- Developed and introduced new clinical pathways to the NHS.
- Extremely high patient satisfaction.

Source: KPMG.

³ www.treatmentcentres/org.uk

greenfield site⁴—which would be developed to meet additional demand or the transfer of pupils from other outmoded schools.

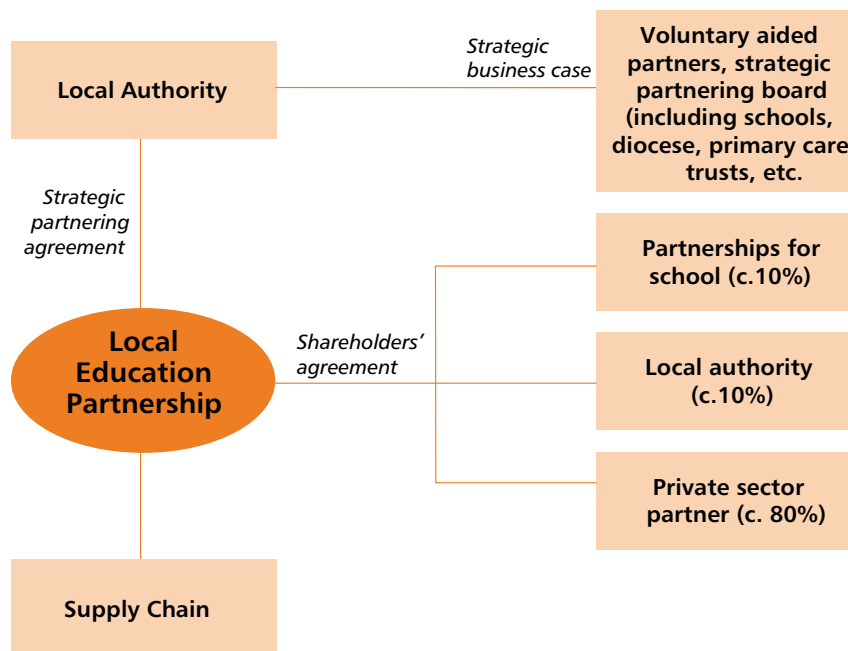
The basic DBFO structure was one where key risks involving design, construction, availability, services performance, and in some cases, third-party incomes were transferred to the private sector. The projects used highly leveraged limited recourse arrangements, usually involving 90:10 debt–equity ratio. Private providers were responsible for finance but interest rate risk was typically arranged through long-term fixed interest upon financial closure, thereby giving certainty to the public sector on borrowing costs.

Such arrangements, known as grouped school projects, expanded to include several schools at once rather than individual school arrangements. The deals ranged from 3–4 to 15–20 schools. Larger projects were more cost-efficient in delivering lower overhead cost and sometimes

were large enough to enable other financing structures. For example, KPMG advised the first UK school project to use capital markets (bond) finance for one of these larger schemes. PFI schemes described here were characterized by highly contractual arrangements where freedom of action and remit for both public and private sectors were prescribed by legal documents such as the PFI Project Agreement.

Introduced in 2003, Building Schools for the Future (BSF) has an annual capital budget of about £2.5 billion, encompasses a 15-year timescale, and has total capital investment costs of over £45 billion. The program aims to rebuild and renew virtually all of UK’s 3,500 secondary schools. Compared with earlier PFI projects, BSF arrangements contain a joint venture arrangement between the public and private sectors. This joint venture is structured on a tripartite basis, i.e., a successful private sector partner, the local municipal authority responsible

Figure 8: Local Education Partnership



Source: KPMG research.

⁴ Among others, a greenfield site is an area of land that has not been used for any nonagricultural development. www.talktalk.co.uk/reference/encyclopaedia

Case Study 4: Strategic Partnership in Kent County—Building Schools for the Future

General description

- Strategic partnership, i.e., a long-term partnering agreement, was initiated between Kent County Council and Private Sector Consortium for capital investment in the county council's secondary schools estate. The aim is to provide 21st century infrastructure and facilities to achieve educational transformation. Ownership and responsibility for all aspects of local education rest with the county council.

Services delivered

- Secondary schools estate strategy and strategic investment plans drawn up.
- Information and communication technology (ICT) strategy, implementation, and service management provided.
- Delivered new and remodeled or refurbished schools by combining private finance initiative (PFI) with government funding and guaranteeing improvement of delivery costs over time.
- Provided lifecycle maintenance (capital repair).
- Provided management of facilities.
- Integrated and managed supply chain contractors to provide a single contract for the county council.
- Promoted wider community involvement in schools and generated third-party income without compromising the educational agenda.

Contract terms

- Kent County Council's Building Schools for the Future budget (£1.6 billion) is spread over three local education partnerships (LEPs).
- The first LEP, valued at about £550 million, is under procurement. It will deliver 33 new and remodeled schools, along with ICT services over a 6-year period.
- Deliver the schools in three phases to ensure effective monitoring.
- Phase 1 involves procuring three new schools with PFI, i.e., the private sector is responsible for the premises's capital repair and facilities management services during a 25-year contract. The annual costs to the county council are around £9 million.
- Procurement for remodeling nine more schools to be done in phase 1 at a cost of around £135 million.
- ICT facilities to be procured at a capital cost of around £16 million, along with a 5-year ICT-managed services contract at an annual cost of around £1.5 million.

Bidding process

- Expressions of interest were submitted by six large consortiums; three long-listed for submitting detailed bids including designs, partnering schemes, finance, legal, and ICT solutions; two short-listed for further submissions and interviews; and one consortium appointed as the preferred bidder.
- A 2-year resource-intensive process.

Management structure

- Procurement monitored by Kent County Council's Strategic Project Board, a project director, and a project team.
- A county council, supported by external advisors on strategy, finance, technical and design, legal, and ICT.
- Stakeholders include central government departments, school head teachers, and school governors in addition to consultation with teachers, parents, pupils, and the local community.

Source: KPMG.

for schools, and a government body known as BSF Investments.

The private sector owns 80% of the shares in the joint venture vehicle, known as a Local Education Partnership (LEP). LEP includes PFI projects that account for about 50% of the program. The remaining 50% is financed with projects that use public funding. Therefore, LEP represents the first genuine blend of public and private finance. BSF also introduces information technology into the responsibility of LEP, given the government's clear aim to ensure that the investment in new school facilities makes good use of the advantages of modern technology.

In a BSF joint venture partnership, the private sector obtains exclusivity for projects that may be delivered in that area for a period as long as 10 years. Thus, it is anticipated that there will be significant reduction in both procurement timescales and aborted bid costs, which ultimately are passed by unsuccessful contractors to the public sector in subsequent successful bids.

LEP partnership involves creating new companies or local businesses that promise a fairly wide range of services on behalf of the local education authority. This model provides some interesting lessons about how joint venture and partnership arrangements may differ from more formal PFI contractual methods. Only 12–15 LEPs exist currently, but KPMG is beginning to deliver completed schools. Within a year or two, efficiency evaluation will be possible for LEP partnerships.

Other Public–Private Initiatives

Private finance arrangements have been used in the higher and continuing education markets. In higher education, such arrangements are used mainly for residential projects, although some schemes have provided new core academic facilities. The use of private finance in higher and further education is far less common, compared with the school sector. A key reason for this is the way in which the government permits universities, for example, to borrow on their own

account and that financing method has been used for many of the capital projects they have undertaken.

Management Services Contracts for Service Delivery

The arrangements described above illustrate the development of new capital facilities, and the provision of facilities management and information technology services that support new or modernized facilities. However, education standards have fallen below an acceptable level in some cases. For example, the government intervened in a particular public authority to bring in a private sector partner, e.g., Serco or Capita, to temporarily take over the running of those services and introduce measures to improve the quality of education service. Similarly, private providers in Surrey County outsourced the operation of the county's education department to VT Education, a private sector company, to provide what it believes will be a more effective and flexible service.

Local authorities in the United Kingdom use several models to manage the procurement of educational services from private providers, e.g., outsourcing education services or providing similar agreements, to enable schools to engage private sector partners more effectively and efficiently.

These examples show different models used to introduce private sector management and provision of education.

While the school intervention program in the United Kingdom was the key trigger for involving private companies in educational services, their role remains limited to helping failing schools. The central government has no framework or initiative that actively encourages private sector participation in improving the education services.

In 2000, the United Kingdom introduced the Academies Program, a platform that encourages private endorsement and support of school

Case Study 5: School Improvement Services

General description

- Under this experiment, one better-performing education authority provided school management support to another authority.
- Time-limited support and advice on governance, executive management, and school improvement services was provided to Doncaster Council through Warwickshire Local Education Authority (LEA).

Services delivered

- New members mentored and corporate agenda developed.
- Developed more effective planning systems and processes.
- Developed school leadership program.

Funding and/or contract terms

- Funded equally by the central government and two local authorities, i.e., Doncaster Council and Warwickshire LEA.
- Total budget was £150,000.
- Former leader and head teacher paid with agreed rates and Warwickshire LEA official received a salary increase.

Management structure

- Arrangements monitored by a partnership board, drawn from members and officials of the two councils and the central government ministry.

Source: KPMG.

Case Study 6: Full Outsourcing

General description

- Under this experiment, one better-performing education authority provided school management support Full outsourcing of day-to-day management and delivery of all education-related services.
- Services delivered.
- Service specification includes all parts of the school education service, excluding early childhood education and adult education.
- Contract specified 407 services but subsequently reduced to 60.

Contract terms

- Funded by the central government under the intervention cases.
- A 7-year contract commencing in April 2000.
- Performance linked to payment of management fee.
- Includes penalty payments for not meeting performance parameters.
- Existing staff to be transferred to private sector (under the Transfer of Undertaking [Protection of Employment] Regulations of 1981 or TUPE arrangements).
- Private provider not granted monopoly of traded services and that services would not be cross-subsidized by nonunion services.

continued on next page

Case Study 6: *continued*

Bidding process

- Bids invited from pre-qualified contractors.
- Three proposals received and Cambridge Education Associates selected.

Outcomes

- Inspection and advisory services provided, back-office functions enhanced, and planning of asset management improved.
- Several contractual penalties incurred due to extremely challenging targets on pupil attainment and political risk.

Source: KPMG.

Case Study 7: Brokerage

General description

- A brokerage approach to service delivery and procurement at school level was developed, along with a restructuring of executive management and interim management arrangements.
- The brokerage essentially manages the relationship with service providers on a commission basis.

Services delivered

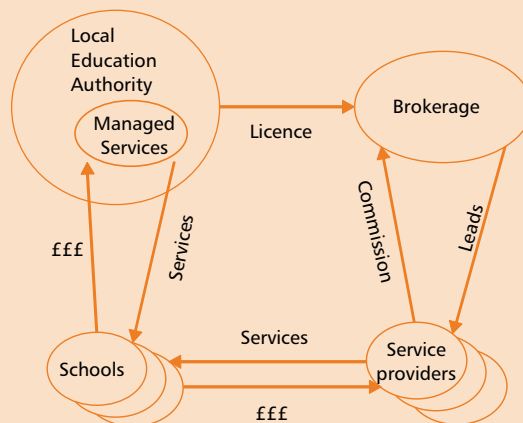
- Provided a wide range of education services.

Contract terms

- Funding from the Department for Education and Skills (DFES)^a included contributions to consulting and redundancy costs as well as small marketing costs to communicate the model to head teachers.
- License to operate a brokerage granted to a public–private joint venture, Transformational Education Services, a joint venture of Windson & Co. and Essex County Council.
- Brokerage to operate independent of the local education authority and with voluntary participation of the schools.
- Brokerage fee (5%) paid by service providers.

Bidding process

- Five of 16 expressions of interest were invited to bid and two bids were submitted.
- Procurement process overseen by a board comprising head teachers and governors.



^a On 28 June 2007, the Department for Education and Skills (DFES) was split into the Department for Children, Schools and Families and the Department for Innovation, Universities and Skills.

Source: KPMG.

Case Study 8: Strategic Partnership

General description

- Strategic partnership between county council and Hyder Business Services (HBS) involving service delivery, services provision, investment by HBS, and sharing of savings with the council.

Services delivered

- Curriculum consulting and professional development.
- Head teacher enrollment.
- Information technology used as education strategy.
- Quantitative and literacy provision, Key Stage 3 provision.
- School transport timetables.
- Governor training.
- Education finance and human resources services.
- Head teacher services.
- Premises capital repair contract.

Contract terms

- Contract value is £25 million per annum for 12 years from June 2001 (also includes additional ad hoc services at cost plus 10%).
- Education contract of the core contract (about £1.5 million) paid by a monthly charge.
- An investment requirement of £7.2 million in the first 3 years, for developing a resource management system.
- Local education authority (LEA) trading arm transferred to Hyder Business Services (HBS) amounting to £5.5 million worth of services such as personnel and human resources training, consultancy, media resources, and school bursary service to be provided to schools.
- Cost savings to the council to be shared, and HBS to deliver cumulative savings of 2% every year over the period of the contract.

Bidding process

- Expressions of interest submitted by 13 companies (9 interviewed and 3—HBS, Capita and Ensign—shortlisted for bids).
- A 2-year resource-intensive process.

Management structure

- LEA services provided by HBS are managed by eight education service delivery managers.
- Relationship managers assigned for each school within the HBS team.
- Education partnership working group includes head teachers, governor representatives of each type of school, and LEA and HBS representatives.

Source: KPMG.

Case Study 9: The City of London KPMG Academy

The City of London KPMG Academy illustrates how a public–private partnership based on a corporate social responsibility initiative will transform education in one of the most disadvantaged United Kingdom boroughs.

Scheduled to open in the London Borough of Hackney in 2009, the Academy will be a mixed, nonselective school committed to serving the local community. Sponsored by the City of London and KPMG, the school will serve 900 students between 11 and 16 years of age. The school plans to recruit 180 students each year beginning in 2009.

Salient features of this initiative are

- The school will be nonselective and will admit young people of all abilities.
- The school is new, built with the latest environmental building practices to transform the existing site into usable space for the entire community. KPMG has provided substantial financial support to develop new building facilities for the school.
- The local community, through consultations, is actively involved in developing the facilities such as the all-weather sports facilities that can be used by the whole community.
- The school's curriculum will strongly emphasize basic education, i.e., developing essential skills in mathematics, English, and information handling. Other subjects will include science, humanities, arts, and social studies.
- The school will be managed by a trust that includes representatives from sponsors, teachers, parents, and the local community.

Source: KPMG.

facilities. Because this program fits into the corporate social responsibility of many private companies, it does not require a sustainable, bankable PPP model. The Academies Program, aiming to open 400 new schools by 2010, targets to assist deprived and underperforming areas. Investment in this program aligns closely with the Building Schools for the Future initiative discussed earlier. Partnerships for Schools is responsible for delivering the program.

Three models will be used to deliver the program:

- A single standard procurement model, to be procured by the Department of Skills and Education.
- An LEP-based model (see earlier discussion).
- A procurement option that uses a design and build framework.

In summary, the United Kingdom can claim more PPP and PFI experience in the education

sector than any other country and some of these techniques are being replicated in other parts of the world. However, these experiences are recent and new. Evidence suggests that PPP and PFI improve education outcomes.

Can Public–Private Partnerships and Private Finance Initiatives Work?

PFI projects began to reach financial closure in significant numbers until 1997. PPP or PFI became a proven approach to resolve several problems that persisted in the traditional construction and operational service procurement models. According to Her Majesty's Treasury, 621 projects with a combined capital value of £57 billion had been signed by October 2007. The PFI procurement model has clearly become an integral part of the public sector's procurement toolkit in the United Kingdom.

The introduction of PFI has had positive effects on public asset-based services as follows:

- The completion of public assets was more timely. In 2003, the National Audit Office (NAO) reported that 76% of PFI buildings were completed on time. This compared very favorably with Her Majesty's Treasury reports (1998, 1999) that the equivalent figure for traditionally procured buildings was 30%. Such improvement is largely credited to the strong financial incentive to achieve service commencement in PFI projects.
- Cost overruns in public procurement have decreased due to the effective transfer of construction cost risk in PFI projects. Compared with PFI procurement, Her Majesty's Treasury (1998, 1999) found that a large number of public sector agencies using traditional methods suffered construction cost overruns. NAO⁵ (2003) determined that in selected cases, the private sector absorbed all cost overruns arising from construction-related issues. If capital cost increases were passed on to the public sector, it was because the public sector imposed changes on the project after financial closure.
- The public's relationship with the private sector has improved. In projects following traditional procurement methods, the public sector's relationship, especially with the contractor, is widely acknowledged as somewhat adversarial. NAO (2001) determined that 72% of public agencies and 80% of private providers in PFI projects rated their mutual relationships as good or very good. No equivalent study on traditional procurement exists. Some explain the emergence of this relationship as due to incentives created by the long-term partnership commitment made between contracting parties.
- Future public expenditure on public services will become more predictable, a major improvement compared with traditional construction and operational service procurement. For example, public expenditure on major maintenance was determined largely by funds available in annual maintenance budgets. Anecdotal evidence suggests that these budgets were volatile, which, on occasions, resulted in suboptimal maintenance.
- The operational certainty of public asset-based services has improved. Performance-related payment and project finance are key features of PFI procurement, creating an incentive for the service provider to ensure operational certainty to avoid incurring payment deductions. For example, a PFI hospital is likely to have more back-up electricity generation capacity than a traditionally procured hospital. Increased operational certainty decreases disruption in the public sector's core service and, thus, yields increased benefits. According to PartnershipsUK,⁶ 79% of projects have delivered services to agreed standards.

Successes in School Private Finance Initiatives

KPMG studied in 2007/08 the impact of investment in school building and the use of private finance on education provision. The study reviewed and analyzed the relationship between the type of renewal (PFI or conventional) and educational outcomes, i.e., percentage of students obtaining five or more grades at general certificate of secondary education level. Results of the study include:

⁵ National Audit Office. Various years. A Report. United Kingdom.

⁶ PartnershipsUK website. www.partnershipsuk.org.uk/

- Among the renewed⁷ schools included in the study, the annual educational attainment rate exceeded that of non renewed schools by 0.5%.
- In renewed PFI schools, educational attainment improved 20% faster, compared with conventionally financed renewed schools.
- In fully rebuilt PFI schools, educational attainment improved 92% faster,

compared with fully rebuilt, conventionally financed schools.

While credible data about school building programs assist in developing a relationship between the building program and education attainment, limited data on intervention cases, i.e., school management services and outsourcing contracts, precludes similar conclusions.

⁷ A renewed school is more than 50% new (rebuilding, refurbishment, and/or extension).

Health Care Sector in India: General Sector Assessment and State-Specific Findings

Introduction

The health care system in India consists of a public sector, a private sector, and an informal network of care providers. The size, scale, and spread of the country hampered complete adherence to the number of well-intended guidelines and regulations. Although there are norms and guidelines, compliance is minimal. In reality, the sector operates in a largely unregulated environment, with minimal controls on what services can be provided, by whom, in what manner, and at what cost. Thus, wide disparities occur in access, cost, levels, and quality of health services provided across the country.

The Government of India has stated its commitment to improve the nation's health system through various policy documents such as the National Health Policy (1983 and 2002). Many policy objectives are consistent with the Millennium Development Goals (MDGs). However, many goals remain unfulfilled for a number of reasons, including planning-related issues and human resource scarcity in health service delivery.

Overview of the Health System in India

The Constitution of India divides health-related responsibilities between the central and the state

governments. While the national government maintains responsibility for medical research and technical education, state governments shoulder the responsibility for infrastructure, employment, and service delivery. The concurrent list (in the 9th schedule to the Constitution of India) includes issues that concern more than one state, e.g., preventing extension of infectious or contagious diseases among states. While the states have significant autonomy in managing their health systems, the national government exercises significant fiscal control over the states' health systems.

The Ministry of Health and Family Welfare (MHFW) oversees the national health system. The MHFW has three departments—the Department of Health and Literacy, the Department of Family Welfare, and the Department of Indian Systems of Medicine and Homoeopathy.

The delivery of primary health care (the focus of the health care section in this study) in India is structured through:

- Subcenters that typically perform basic medical services, immunizations, and referrals. Subcenters are usually temporary structures that employ 1–2 care workers in most locations. Concerns include inadequate and/or uneven geographic coverage and inadequate funding.
- Primary health centers (PHCs) typically perform preventive and curative medical services. PHCs are usually small (about

5 beds) with 1–2 qualified doctors, and 14 paramedics and support staff. Each PHC is typically a referral unit for a subcenter cluster of about six. Concerns include inadequate and uneven geographic coverage and insufficient number of qualified doctors and staff.

- Community health centers (CHCs) perform advanced medical services, including surgery. Each CHC is a referral unit for a PHC cluster of about 4 PHCs. CHCs have about 30 beds and diagnostic equipment such as X-ray machines. Concerns include inadequate and uneven geographic coverage and equipment personnel mismatch.

of financing determines a system’s structure and incentives, drives the behavior of different stakeholders, and ultimately the quality of outcomes.

Results from a study based on the National Health Account shows that health expenditure in India in 2001–2002 was 4.8% of gross domestic product (GDP). Figure 9 compares health expenditures as a percentage of GDP across countries.

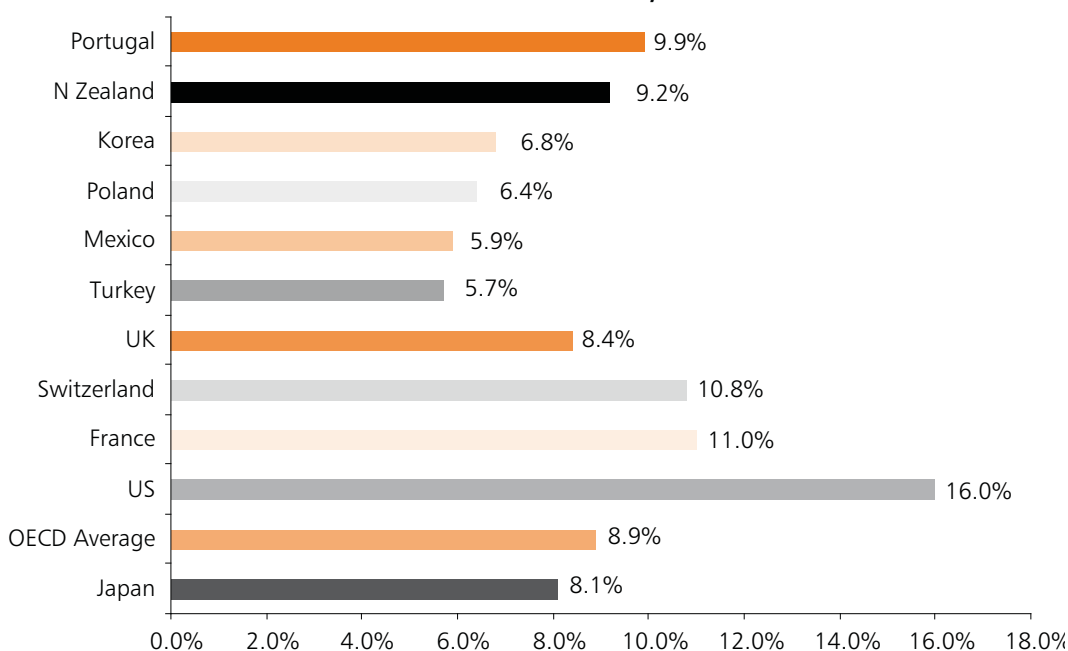
The public sector (including central and state governments) typically financed only 29% of the health expenditure while private sources accounted for 71% (69% being direct household expenditures) of health expenditure.

Public Sector Spending in Health

Financing determines the efficiency and effectiveness of a health care system. The nature

A report by MHFW’s Task Force on Medical Education determined that the private sector provides 58% of hospital buildings, 29% hospitals beds, and 81% of the doctors in India.⁸

Figure 9: Health Expenditure of Various Countries as Percentage Share of Their Gross Domestic Product, 2007

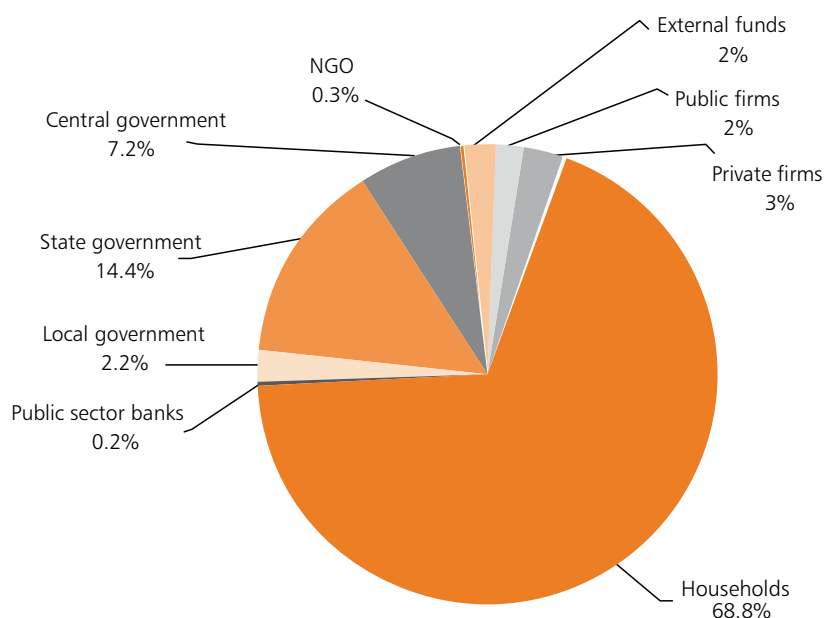


N Zealand = New Zealand, OECD = Organisation for Economic Co-operation and Development, UK = United Kingdom, US = United States.

Source: Health at a Glance 2009—OECD Indicators, Organisation for Economic Co-operation and Development statistics.

⁸ Draft report by the Task Force on Medical Education for the Rural Health Mission, Ministry of Health and Family Welfare, Government of India.

Figure 10: Sources of Finance for the Health Sector in India, 2001–2002



NGO – nongovernment organization.

Source: Ministry of Health and Family Welfare 2005. www.whoindia.org/.../Commision_on_Macroeconomic_and_Health_Financing_of_Health_in_India.pdf

It may be noted that private sector financing plays a significant role in India’s health care system. This may provide an opportunity to leverage private sector resources through PPP models and, thus, improve the health care system.

A similar striking disparity exists among states regarding maternal mortality—the rate in Tamil Nadu, a relatively advanced state, is less than 0.1% while Bihar’s rate is almost 1%. Figure 11 illustrates the disparities in health outcomes among states and Figure 12 shows the divide between urban and rural areas.

Attainment Indicators

Similar to education, the health care system has seen significant developments during the last 50 years. However, India still lags behind significantly when compared internationally. India lacks qualified health care professionals and its health care infrastructure has many deficits. The widespread mismatch of infrastructure and/or equipment and human resources results in underutilized resources and suboptimal outcomes.

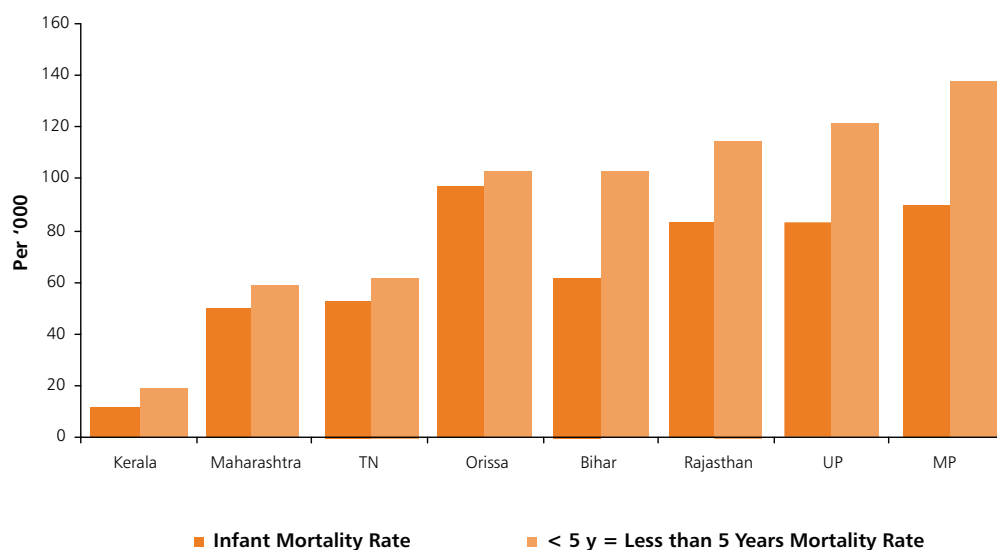
In terms of attainment indicators, MHFW reports that life expectancy in India increased from 38 years in 1951 to 65 years in 2000. Infant mortality rate decreased correspondingly during the same period, from 146 to 70 deaths per 1,000. India’s health care infrastructure also improved. For example, the number of doctors and medical beds grew eightfold, the number of hospitals increased fourfold, and nursing personnel increased fortyfold. Despite these gains, India must fill significant gaps to attain a world-class health care system.

The availability and quality of health care services differs among states and between urban and rural areas. For example, while the infant mortality rate in advanced states such as Kerala is less than 2%, comparable rates in Madhya Pradesh are at 9% and 8% in Rajasthan.

Key Challenges and Issues

The health sector in India significantly increased its ability to provide coverage in

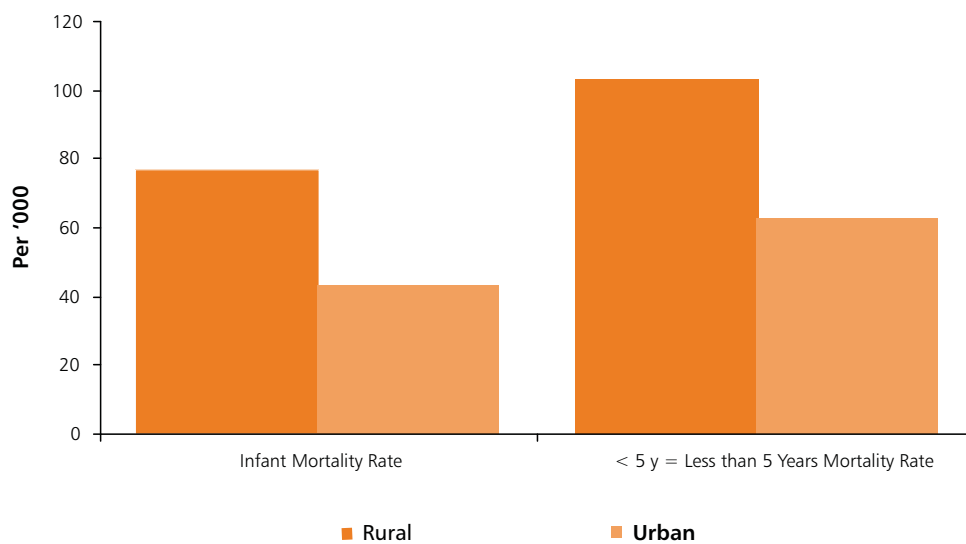
Figure 11: Infant and Child Mortality Indices Across States



MP = Madhya Pradesh, TN = Tamil Nadu, UP = Uttar Pradesh.

Source: National Health Policy 2002. www.mohfw.nic.in/np2002.htm

Figure 12: Mortality Indices in Rural and Urban Areas



Source: National Health Policy 2002. www.mohfw.nic.in/np2002.htm

primary health care centers and hospital infrastructure. Table 7 shows the results of this study’s analysis of primary health care centers in participating states.

Significant coverage discrepancies exist among the different states. While gaps in physical infrastructure continue throughout India, other health care challenges include:

- **Shortage of skilled health care professionals.** This is a national issue and requires more training institutions and medical colleges.
- **Accessibility and coverage in rural areas.** India’s diverse geographical terrain makes providing health care services difficult. Because inaccessible areas also tend to be the most backward areas, the

Table 7: KPMG Comparison of Primary Health Care Infrastructure, 2008

Description	Number of Subcenters per PHC	Number of PHCs per CHC	Shortfall of Subcenters, PHC, CHC
National average	6	7	SC: 19,269 PHC: 4,337 CHC: 3,206
Rajasthan	6	5	SC: Surplus PHC: Surplus CHC: 62 shortfall
Tamil Nadu	6	39	SC: Surplus PHC: Surplus CHC: 258 shortfall
Andhra Pradesh	8	10	SC: Surplus PHC: 354 Shortfall CHC: 317 shortfall
Uttarakhand	7	5	SC: Surplus PHC: Surplus CHC: 9 shortfall
Orissa	5	6	SC: 1,356 shortfall PHC: Surplus CHC: 61 shortfall

CHC = community health care center, PHC = primary health care center, SC = subcenter.

Source: India Census 2001, Ministry of Health and Family Welfare Rural Healthcare System in India.

Table 8: Average Distance Between Subcenters, Primary Health Centers, and Community Health Care Centers

Description	Subcenter (in km)	PHC (in km)	CHC (in km)
National	2.61	6.53	17.22
Rajasthan	3.19	7.91	18.13
Tamil Nadu	2.08	5.21	32.69
Andhra Pradesh	2.62	7.40	22.90
Uttarakhand	3.26	8.63	19.52
Orissa	2.87	6.16	14.51

CHC = community health care center, km = kilometer, PHC = primary health care center.

Source: India Census 2001, Ministry of Health and Family Welfare, Rural Healthcare System in India.

government needs to provide them with medical services.

- **Quality of health care.** Inconsistent access and quality leads to massively disparate outcomes among states and districts. In many states, ineffective management of health care is a greater concern than the quality of infrastructure. Nongovernment organizations (NGOs) have participated in health care management in remote and rural areas, but capacity and accountability are key concerns.

While the health sector has made significant progress in the years since the country's independence, India still faces significant challenges. Similar to education, the scope of this study was limited to evaluating and proposing potential solutions for only those issues that have been addressed by PPPs in other countries. This includes the delivery and

maintenance of hard infrastructure and services for primary health care, and typically excludes all sociocultural, policy, and political issues that require much wider reform such as programs for disease control, drug distribution, and professional training. In addition, PPPs typically exclude provisioning of medical staff and their training.

Summary of State Consultations

The team initiated this study to investigate the concerns and challenges of five states (Andhra Pradesh, Orissa, Rajasthan, Tamil Nadu, and Uttarakhand) and evaluate PPP frameworks. Table 9 illustrates each state's unique challenges and presents the strengths and weaknesses shared by the states.

Table 9: Key Strengths and Weaknesses of the State Health Sectors

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
Strengths	<ul style="list-style-type: none"> Significantly improved physical infrastructure; high growth rate for subcenters and PHCs. 	<ul style="list-style-type: none"> Like Rajasthan, significantly improved physical infrastructure; high growth rate for subcenters and PHCs. Better-than-average accessibility, especially for subcenters and PHCs. Availability of qualified human resources. 	<ul style="list-style-type: none"> Reasonable accessibility to health care services (mainly in urban areas). The state is home to some of the biggest ICT companies in the country—an advantage that the state has exploited in setting up the ‘108’ ambulance service. 	<ul style="list-style-type: none"> Reasonable status of physical infrastructure, i.e., adequate number of subcenters and PHCs, slight shortfall in CHCs. A significant proportion of PHCs have toilets, water, and electricity. 	<ul style="list-style-type: none"> Gradually improving health care infrastructure. Actively seeking private participation in health care delivery.
Weaknesses	<ul style="list-style-type: none"> Certain infrastructure gaps, especially for CHC. Inadequate rural accessibility. Service delivery issues—Inadequate number of full-time doctors, laboratory technicians, pharmacy and diagnostic facilities, ineffective overall management of services. 	<ul style="list-style-type: none"> Certain infrastructure gaps, especially for CHC; accessibility issue for CHCs. Potential union resistance to private involvement in public health services. Unstable state policies on public health care. 	<ul style="list-style-type: none"> Infrastructure gaps, especially shortage of PHCs and CHCs; improvement of hard infrastructure and accessibility in rural areas are key concerns. Service delivery issues—overall ineffective management of services is also a concern. 	<ul style="list-style-type: none"> Shortage of skilled health professionals and urban concentration of health professionals. Service delivery issues—Overall ineffective management of services. Inadequate rural accessibility. 	<ul style="list-style-type: none"> Gaps in basic infrastructure—Shortage of subcenters and CHCs. Improvement of hard infrastructure and accessibility in rural areas are key concerns. Service delivery issues—Overall ineffective management of services. Inadequate rural accessibility. Shortage of skilled health professionals and urban concentration of health professionals.

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Table 9: continued

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
Local Public-Private Partnership Experience	<ul style="list-style-type: none"> Mobile clinics are under consideration. Joint participation between the state government and the private sector is envisaged. This service will be delivered using trained personnel, equipped ambulances, and a toll-free number to receive and respond to emergency calls. Diagnostic services—This project is at proposal stage. The private sector will install diagnostic equipment in hospitals. Once equipment is in place, doctors are required to refer patients to these centers for treatment. Facility outsourcing—This has been done on a limited basis only in selected urban hospitals. Includes contracting out catering and cleaning services. 	<ul style="list-style-type: none"> Ambulance and motor operations—The ambulances are owned by the state which pays NGOs for maintenance and operation of ambulances. Diagnostic services—Fees for specialized diagnostic services and laparoscopic minor investigation have been introduced. Facility outsourcing—The state government has outsourced support services such as sanitation, security and catering. This was undertaken in small scale at individual hospitals on an annual contract basis. PHC adoption scheme - Rural primary health care centers were adopted by NGOs for corporate social responsibility action— not-for-profit basis. Services provided include maintenance of existing infrastructure, supply of doctors, and support staff to manage the health centers. 	<ul style="list-style-type: none"> “108” emergency and/or ambulance services— This program provides emergency medical response and services within Hyderabad. The program was developed in partnership with Satyam Computer Services. “104” helpline service— This program, also in partnership with Satyam Computers, provides health advice, health information, counseling, and health service-related grievance redressal via telephone. Rajiv Aarogyasri community health insurance scheme—The state developed a health care insurance scheme, which is run in partnership with a private sector insurance company. The state covers the insurance premium and households can claim health expenses in relation to certain critical diseases. 	<ul style="list-style-type: none"> Mobile van for curative services— Similar to what is proposed in Rajasthan, mobile health clinics are provided in some remote areas for diagnostic and curative services. The state government bears 50% of the operating expense; the balance is borne by the central government. Contracting out of non-clinical services— The state has handed over non-clinical services such as laundry, sanitation, diet, and waste management to private agencies based on a competitive bidding process. 	<ul style="list-style-type: none"> Diagnostic service—There is scheme for levying user charges in medical colleges, headquarter, and subdivisional hospitals for specific diagnostic purposes. Money collected (from above poverty line families only) as a user fee is spent at the point of collection for improvement of the particular institution. Management and operations of PHCs and subcenters by NGOs—The state has outsourced the management of 20 PHCs to various NGOs in the state. The state government contributes the existing buildings and other hard infrastructure, drugs, and 90% of the operating costs while the NGO and/or private sector partner covers the remaining 10% of the operating expense.

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Table 9: *continued*

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
Evaluation	<ul style="list-style-type: none"> Although the state has developed its infrastructure, it still lacks certain key infrastructure especially an adequate number of CHCs. Improvement of accessibility, service delivery and management is the key issue facing the state. Service delivery and management could be achieved through customized PPP management contracts and hospital PFI schemes. Accessibility can be enhanced by PPP programs in mobile health care solutions. (These are discussed in the main report). 	<ul style="list-style-type: none"> Accessibility to CHC could be improved by increasing the number of CHCs in unserved areas through PFI schemes. Addressing union issues would require state-wide policy reforms and strong political will. This is not possible through PPP. KPMG noted some apprehension in the political acceptability of private participation in public health care. In view of this, one needs to evaluate the political appetite for individual PPP schemes before proceeding with such schemes. 	<ul style="list-style-type: none"> As the state has an advantage in ICT sector, it could explore for-profit PPP schemes with private players to improve health service. The state has already entered into partnership with Satyam Computer services to provide emergency medical services and helplines. To improve basic hard infrastructure, the state could also look at customizing the hospital PFI and/or PPP model proposed in this report. Service delivery and management could be improved through customized PPP management contracts. 	<ul style="list-style-type: none"> As in the case of Rajasthan, improvement of service delivery, staff availability and management could be achieved through customized PPP management contracts. The state operates a mobile clinic service on a not-for-profit basis. It can explore for-profit PPPs in mobile clinic operation in rural areas as a way of mitigating rural accessibility issues. 	<ul style="list-style-type: none"> For improving the basic hard infrastructure, the state could look at customizing the hospital PFI model proposed in this report. As in case of Rajasthan and Uttarakhand, improvement of service delivery and management could be achieved through customized PPP management contracts. The state has outsourced management of c. 20 PHCs to NGOs. It could now explore a for-profit PPP route based on the framework suggested in this report. As the state faces similar issues as Uttarakhand regarding shortage of skilled rural health professionals, it can also explore for-profit PPPs in mobile clinic operation in rural areas.
Next Steps	<ul style="list-style-type: none"> Improve accessibility in rural/remote areas, potentially through PPP in mobile clinics. Improve service delivery through customized management contracts. 	<ul style="list-style-type: none"> Improve accessibility to CHCs, especially in rural and/or remote areas, potentially through PFI schemes. Build stakeholder consensus (through consultations and active engagement) to address union issues. 	<ul style="list-style-type: none"> Improve basic infrastructure, potentially through hospital PFI schemes. Improve advanced infrastructure and/or service delivery aspects, potentially through PPPs with private ICT companies in the state. 	<ul style="list-style-type: none"> Improve service delivery through customized management contracts. Explore for-profit PPP framework for mobile clinics. 	<ul style="list-style-type: none"> Improve basic infrastructure potentially through hospital PFI schemes. Improve service delivery through customized management contracts. Explore for-profit PPP framework for mobile clinics.

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Table 9: *continued*

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
Potential Public-Private Partnership Frameworks	<ul style="list-style-type: none"> Hospital PFI or management contracts—These PPP models may be customized to address the service delivery, management, and supervision gaps. Mobile clinics—This can be customized into a for-profit PPP model to address accessibility issues. Build, Own, Operate Diagnostic Centers—This PPP model can be used to mitigate the shortage of diagnostic facilities and laboratory technicians, especially in rural areas. 	<ul style="list-style-type: none"> Hospital PFI—This model may be customized to address the shortage of CHCs in the state. The state has already set up user fee-based diagnostic clinics on a limited scale. It has also outsourced management of certain soft facilities in hospitals on a limited scale. Both these programs have potential of being administered as a PPP model. KPMG believes that these models are scalable on a for-profit-basis. The models discussed in this report may be customized for this purpose. 	<ul style="list-style-type: none"> Hospital PFI—This model may be customized to improve the hard infrastructure in the state. The state should also examine PPP in mobile clinics as “force multipliers” to improve rural accessibility. Andhra Pradesh has developed a model for setting health insurance across the state in partnership with a private entity. Depending on the success of this initiative, further analysis may be done for a nationwide rollout of this program. 	<ul style="list-style-type: none"> Management contracts—This PPP model may be customized to address the service delivery, management, and supervision gaps. Mobile clinics—This can be customized into a for profit PPP model to address accessibility issues. 	<ul style="list-style-type: none"> Hospital PFI—This model may be customized to improve the hard infrastructure in the State. Like Andhra Pradesh and Uttarakhand, the state should also examine PPP in mobile clinics as “force-multipliers” to improve rural accessibility. Management contracts—This PPP model may be customized to address the service delivery, management and supervision gaps.

CHC = community health care center, ICT = information and communications technology, PFI = private finance initiative, PHC = primary health care center, PPP = public-private partnership.

Source: KPMG.

Recommendations for Public–Private Partnership Models for the Health Sector in India

The report summarizes potential PPP models that may serve to meet the requirements of the sector, based on data from preliminary research and consultations. These models need further details based on specific project structuring, which would involve detailed technical and financial analysis and legal review, further supported by evidence using the efficiency, effectiveness, and equity criteria.

Primary Healthcare Adoption, Management Contract, Mobile Clinics

The report recommends adopting management contracts and mobile clinics for PHCs in rural areas. Drawing from the experiences of state governments in handing out the management of rural primary health care units to nongovernment organizations or to corporate social responsibility initiatives, the government could explore developing this into a PPP. The key tenets of such a scheme would include the following:

- The private sector to manage the primary health care provision including building maintenance, staffing, and service delivery for PHCs.
- State governments to consider bundling PHCs based on geography, and creating clusters of hierarchical PHCs. As part of the procurement process, the private

sector may be invited to provide innovative solutions, including a potential mix of mobile medical units and revolving pools of doctors and specialists, to provide coverage within an area.

- The government to pay private providers fixed fees, annually or monthly, for providing the services. This study recommends a more detailed cost analysis of PHC management by private providers on existing state government budgets and potential central government budgets that maybe dovetailed into this program.
- The performance monitoring system to be based on availability of medical services and buildings, within specified time periods. An information technology system would track the number of patients and/or illnesses diagnosed and treated.

This plan is likely to generate little or negligible third-party income. Although a private provider has developed a model for delivering primary health care based on user charges, the states prefer free health care provision in the rural areas. In such an eventuality, the public sector will be expected to fully fund service provision.

Build, Own, and Operate Diagnostic Centers

The report identified a preference for developing diagnostic services such as computed tomography (CT) scan, magnetic resonance imaging (MRI), and sonography based on a subsidized user charge mechanism. Under this plan, private providers will install and maintain

Table 10: Summary of Proposed Public–Private Partnership Models in Health

Issues to be Addressed	Proposed Public–Private Partnership Model
Physical infrastructure including primary health care centers	<ul style="list-style-type: none"> • Primary Healthcare Adoption, Management Contract, Mobile Clinics • Hospital Private Finance Initiatives
Accessibility and coverage in rural areas	<ul style="list-style-type: none"> • Primary Healthcare Adoption, Management Contract, Mobile Clinics • Health Insurance
Quality of health care	<ul style="list-style-type: none"> • Build, Own, and Operate Diagnostic Centers

Source: KPMG.

Table 11: Advantages and Disadvantages of Primary Healthcare Adoption, Management Contract, and Mobile Clinics

Advantages	Disadvantages
<ul style="list-style-type: none"> • Focus on a critical areas of concern—primary health care in rural areas • Target service in areas with highest need • Ability to use private sector solutions in difficult terrain 	<ul style="list-style-type: none"> • Private sector capability limited • Fully funded by the public sector • Issue on scarcity of health care workers

Source: KPMG.

Table 12: Payment Mechanism for Private Sector Treatment Centers

The private sector bids a unit price per activity (e.g., cataract surgery or MRI scan), split into a base cost and an activity cost (broadly intended to reflect their fixed and variable costs, respectively). The private sector receives payment as follows:

- Base cost = actual referrals x base cost OR guaranteed % of base cost (whichever is higher)
- Activity cost = actual referrals x activity cost

Source: KPMG.

diagnostic facilities within existing health centers, hospitals, or independently for public use at subsidized rates. Private providers will operate the equipment, conduct diagnostic procedures, and collect user charges.

to cover its fixed operating costs, based on a minimum predefined usage level and a variable component, including consumables and maintenance charges.

Program highlights include:

Table 12 illustrates a payment mechanism based on ISTC in the United Kingdom.

- **Services specification.** The range of services covered within the contract could include:
 - installation, maintenance, and operation of new medical equipment such as MRI, ultrasound, sonography, and CT scan;
 - maintenance, upgrading, and operation of existing medical equipment; and
 - provision of doctors and medical assistants for the operation of the center.
- **Payment mechanism.** Depending on the political appetite for a user charging mechanism by state government, the public sector could explore user-charging plans to support the financial returns to the private sector. Typically, the private sector would be eager to set monthly or annual charges for a base component
 - **User charges.** The private sector may be permitted to offer different user charging mechanisms based on different variables, including:
 - waiting periods and response time: private providers may charge premium for shorter wait times or quicker delivery of reports,

- income levels: individuals earning below the poverty line are potentially eligible for subsidized health or pre-specified services, and
- timing: private providers may identify specific time periods for premium or free service.
- **Contractual tenure.** Depending on the financial assessment of the project, including the expected useful economic life of equipment, the public sector could consider 5–10 year contractual arrangements.
- **Cluster approach to bundling projects.** The government may also consider a cluster approach, i.e., bundling cities or rural areas to provide adequate diagnostic services within a cluster. Private providers may consider bundling diagnostic centers to cover an entire cluster, and also may include mobile facilities to cover a wider geographic area and improve equipment use. For example, clusters could include one inner city hospital with 4–5 district level health centers and 9–10 rural health centers. Based on the national average, six subcenters report to a PHC, while seven PHCs report to a CHC.
- **Revenue risk sharing.** The revenue risk-sharing arrangement between the public and private sector will depend on factors that include:
 - Location of the facility: Private sector may agree to share the demand risk for centers located in large hospitals, inner cities, or within a network of health centers. The government may develop a referral arrangement with a network of hospitals. Information technology systems could support processing of the subsidy element available to poorer sections of the community.
 - Cluster approach to bundling of projects: Where diagnostic centers have low demand, bundling may help to mitigate demand risk. Conversely, if a cluster generates low revenues or cannot easily deliver services due to geographical conditions, the public sector may choose to retain demand risk.
 - Acceptance of user fee within a community: In bigger cities, inner hospitals, and certain other communities, people may be willing to pay for services that guarantee shorter waiting periods and quicker response times.
 - Doctor and hospital referral systems: When the public sector can provide a transparent tracking system for a network of hospitals, health centers, and doctors, private providers will assume demand risk more readily.
 - State health insurance: A state health insurance plan could cover some diagnostic procedures.

Hospital Private Finance Initiatives

Hospital PFI programs have been used in the United Kingdom and internationally to support hospital building programs for both new and existing hospitals. A typical hospital PFI includes:

Table 13: Advantages and Disadvantages of Private Sector Treatment Centers

Advantages	Disadvantages
<ul style="list-style-type: none"> • Provision of additional diagnostic capacity in targeted areas • Improved financial sustainability from user fees and paid services • Use of preexisting capacity and capability in the private sector 	<ul style="list-style-type: none"> • Difficulties in introducing user fees • Affordability differences impacting perceptions by different user segments • Requires wider stakeholder process in building a network of doctors • Requires the creation of a framework for transparent and dependable referral system

Source: KPMG.

- **Service specification.** This includes:
 - new construction, partial reconstruction, and minor improvement of hospital building;
 - installation, commissioning, and lifecycle maintenance of hospital equipment;
 - information management and technology solutions;
 - facilities management such as cleaning, laundry and linen services, catering, security, and medical waste disposal management; and
 - helpdesk and reception management.
- **Payment structure.** Payment is typically structured as an annual charge, due when the entire hospital facility opens for business and adjusted for performance and service availability standards. Key principles include:
 - Payment begins only upon completion of the construction phase and commissioning of the building and equipment. For phased completion, payment triggers are set at the end of each phase.
 - The private sector is entitled to an annual charge upon commissioning of the entire hospital facility. The payment mechanism provides for deduction due to performance shortfalls and unavailability of rooms and/or space in the hospital.
- **Potential for generating third-party revenues.** The private sector may consider options such as leasing space to retailers, paid catering facilities, car parking facilities, and paid nursery and/or daycare facilities. However, KPMG’s experience suggests only limited potential for third-party revenue.
- **Contractual tenure:** A typical PFI contract is structured over a period of 25–30 years, although several contracts have extended up to 40 years, largely to make the annual charge more affordable.

Health Insurance

The Andhra Pradesh health insurance program, which covers selected catastrophic illnesses for more than 85% of the state’s population, pays a private provider an annual insurance premium (Rs220 per household) to deliver pre-specified medical procedures up to Rs2 lacs per household annually. While other states or the Government of India could adopt a similar plan, registering households and developing IT systems to monitor and deploy the program would require new legislation. Other considerations include socioeconomic, political, and financial implications. If the Government of India wishes to pursue health insurance, this study recommends independent assessment and consultation with financial services and health insurance providers.

Table 14: Advantages and Disadvantages of Hospital Private Finance Initiatives

Advantages	Disadvantages
<ul style="list-style-type: none"> • Addresses the need to strengthen hospital infrastructure • No capital expenditure required upfront • Public resources focused on health care provision rather than building management 	<ul style="list-style-type: none"> • Affordability • Increasing public sector procurement capability to undertake such large-scale projects • Private sector appetite not tested

Source: KPMG.

Case Study 10: ICICI Lombard

A Case on Providing Health Insurance in India

In 2005, the Ministry of Textiles engaged ICICI Lombard to design an insurance plan for handloom weavers. Initially covering 800,000 weavers, the policy now insures 2.8 million weavers and their immediate families in 13 states in India. The national government covers 100% of the cost.

With average annual coverage of Rs15,000 per family (up to Rs200,000 in some cases), the policy covers hospitalization expenses, maternity benefits, dental and eye treatments, and 1,530 days pre- and post-hospitalization expenses.

This government initiative has helped create a network of 3,000 hospitals that have cashless facilities, i.e., payment is made with a “smartcard.” This cashless payment mechanism makes it easier for the rural population to seek adequate health care coverage.

Source: KPMG.

Conclusion

Current delivery of health services in India has substantial gaps, including inadequate physical infrastructure, ineffective management, limited

availability, and lack of qualified health care professionals. Based on international experience, this study proposes a number of PPP models to address these issues, which need to be detailed out through project-specific structuring (financial, legal, and technical evaluation).

Education Sector in India: General Sector Assessment and State-Specific Findings

Introduction

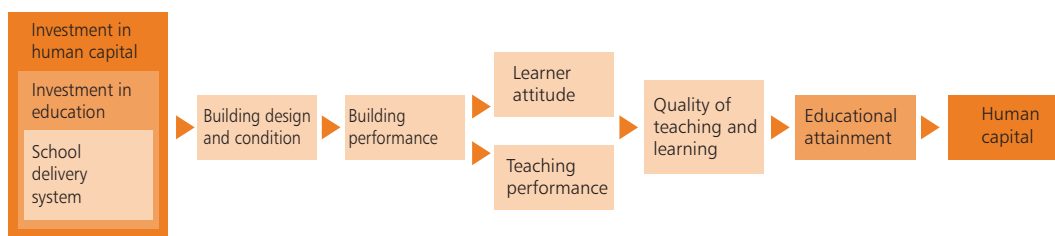
The importance of education cannot be overemphasized. Education participates critically in building individual endowments and abilities, and it drives social and economic development at the national level. For the individual, investment in education means increased earning potential; nationally, it means greater efficiency and productivity.

In the contemporary world, continuous investment in human capital is essential. Such investment yields improved productivity and enhances national competitiveness. Thus, investment in education is investment in human capital. Since school facilities and teaching quality affect the delivery of education, spending money on school buildings clearly falls under the umbrella of educational investment.

Figure 13 conceptualizes the role of a school delivery system in the development of human capital.

The Constitution of India enshrines elementary education as the right of every child. The Millennium Development Goals include universal primary education. According to 2001 census, however, India's literacy rate was only 65%. Large disparities in literacy, overall access, and education infrastructure exist among the states. Ironically, illiteracy persists alongside cutting-edge scientific and technological research. Moreover, India is among a handful of Southeast Asian and North African countries where education outcomes are better for boys than for girls. However, India has made significant gains in improving education at both individual and national level. Therefore, it makes good sense for government to prioritize education for social investment.

Figure 13: Role of a School Delivery System in the Development of Human Capital



Source: KPMG research.

Overview: Public Education in India

The Ministry of Human Resource Development, which includes the Department of School Education and Literacy and the Department of Higher Education, oversees the education system at the national level. The ministry is headed by a union minister.

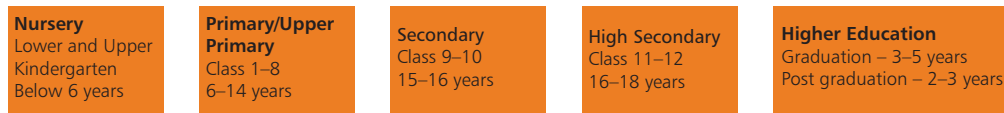
India’s educational system is divided into nursery (lower and upper kindergarten), primary, secondary (high school), and higher education levels. The age range for primary and upper primary schools is typically between 6 and 14 years, and classes are usually organized into grades 1–7. The typical age of secondary school students ranges between 15 and 16 years, and classes are organized into grades 9 and 10.

High school or secondary students are generally 16–18 years old and classes are organized into grades 11 and 12. Figure 14 provides a schematic representation of the typical education structure in India.

Public Sector Spending for Education

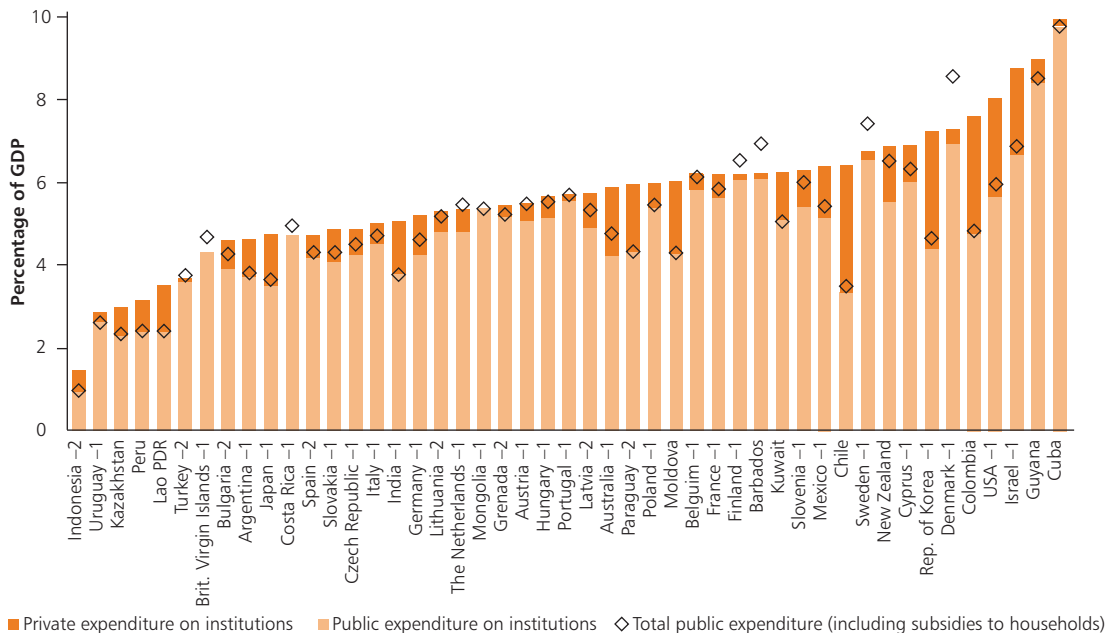
Government spending for education has risen consistently from 0.65% of GDP in 1950–1951 to 4.10% of GDP in 2001. However, severe fiscal problems in the states, which account for almost 90% of total education expenditures, limit positive outcomes. Compared with other countries, education spending by the Government of India is very low in relation to GDP (Figure 15).

Figure 14: Typical Education Structure in India



Sources: Ministry of Human Resource Development and KPMG research.

Figure 15. Public and Private Expenditures on Educational Institutions, 2005



-1 = data refer to 2004, -2 = data refer to 2003, Rep. of Korea = Republic of Korea, Lao PDR = Lao People’s Democratic Republic, USA = United States of America, Brit. Virgin Islands = British Virgin Islands.

Note: Subsidies are calculated as the difference between public expenditure on institutions and total public expenditure.

Source: UNESCO Institute for Statistics database.

Private school education plays a significant role in India. The United Nations Children’s Fund (UNICEF) Survey of Elementary Education in India (1999) shows that private education has expanded, particularly in states with the most dysfunctional public education systems. The same survey points out that most private schools⁹ have better infrastructure, teacher-to-pupil ratios, and quality and training of teachers. While private schools sometimes hire temporary teachers, government schools usually have permanent employees.

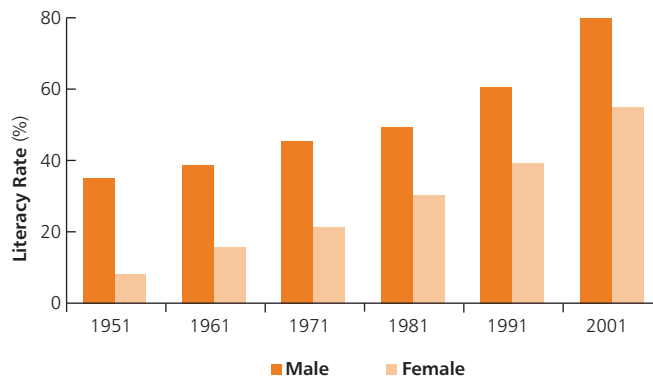
in key areas such as physical infrastructure, teacher training, teacher availability, curricula, equipment, and training materials. The 2001 Census of India suggests that overall education attainment and literacy rates among states vary such that literacy rate in the state of Kerala is greater than 90% while in Bihar, it is 50%. The national rate is 76% for males while 54% for females (Figure 16); it is not surprising that some states with high literacy rates have lower gender literacy disparity. Finally, the literacy rate in rural areas is 60% compared with 80% in urban areas (Figure 17).

Attainment Indicators

Although India’s education system has made significant developments, glaring gaps remain

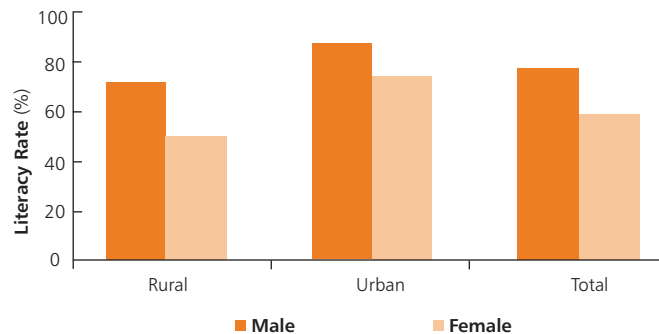
Attainment indicators show that national literacy rate increased from 18% in 1951 to about 65% in 2001. The Planning Commission of India reports that the gross enrolment ratio at primary and upper primary levels improved significantly

Figure 16: Male and Female Literacy Rates, India, 2001



Source: Census of India 2001.

Figure 17: Rural versus Urban Literacy Rate, India, 2001



Source: Census of India 2001, Ministry of Health and Family Welfare, Rural Healthcare System in India.

⁹ A private, unaided educational institution is managed by an individual or a private organization and does not receive maintenance grants either from national or state government or any other public authority.

between 1950 and 2000. In 2001, the gross enrolment ratio was approximately 95% for primary and 59% for upper primary levels. However, the national dropout rate remains substantial (as high as 28% at the primary level) and many children leave school before completing secondary education. Further, this rate seems to increase cumulatively with the level of education. The main reasons for the high dropout rates include:

- Perceived high opportunity cost of education, i.e., poverty compels children to work;
- Uncertainty about immediate utility of education, i.e., poor parents prefer children to earn as soon as possible rather than invest in their future;
- Unfriendly school atmosphere and disinterested or absent teachers;
- Inadequate infrastructure, i.e., lack of separate toilets is a major deterrent for female students and lack of playgrounds is a significant disincentive for many students;
- Uninteresting curricula and student's inability to cope with studies; and
- Personal reasons, e.g., older siblings are responsible for their younger siblings, early marriage of girls, and sociocultural and religious perceptions about the role of education (especially for girls).

Key Challenges and Issues

This report focuses on two key parameters: physical infrastructure and teaching quality. Education has made significant progress in providing coverage, increasing physical infrastructure in urban areas, and providing midday meals and other ancillary services that improve the retention ratio. However, several areas still need improvement and the government needs to set and maintain standards for infrastructure and curricula.

These challenges require a multifaceted approach to achieve wider economic, sociocultural, policy, and political reforms.

However, such issues are outside the scope of this exercise.

Physical Infrastructure: Design, Condition, and Performance

The team requested infrastructure information from study participants, and discussed with state governments their views regarding the physical infrastructure requirement. For the most part, the state governments felt that considerable progress had been made in developing physical infrastructure; they preferred to focus on improving teaching quality. However, the team's analysis shows significant deficits in key areas such as blackboards, toilets, and ICT facilities. Table 15 compares national and state data.

Thus, the physical infrastructure at primary and upper primary schools still requires significant improvement. Some requirements—e.g., blackboards, electricity, and playgrounds—are critical support in achieving quality education. The availability of separate toilets represents a critical requirement for retaining girls in school beyond puberty. The school building program requires a proactive building maintenance and management program to continuously maintain performance standards. This report recommends that central education authorities develop standard specifications for school infrastructure. It also suggests that the Government of India consider PFI and BSF, which focus on infrastructure programs that renew schools and estate management.

Teaching Quality and Performance

Teaching performance reflects student attitudes and teaching skill. However, teacher performance differs significantly in public schools at both state and national levels (Table 16). Average class size varies from 22 to 40 students and student–teacher ratio varies between 25 and 36. On average, 49% of schools lack a full-time head teacher. Students that repeated grades were between 43% and 50% in the states that participated in this study. Teacher absenteeism is a recurrent finding in the state studies.

Table 15: Statewide Comparison of Physical Infrastructure, National Averages

Category	Andhra Pradesh	Tamil Nadu	Orissa	Uttarakhand	Rajasthan	National
Total primary and upper primary schools	68,432	39,076	46,899	15,931	76,794	915,440
Residential schools (%)	3	2	5	2	1	3
Non-permanent structure schools (%)	NA	7	12	6	3	NA
Schools needing major repair (%)	8	7	25	2	6	NA
Schools with toilets (%)	65	70	65	79	81	NA
Schools lacking separate toilets for girls (%)	49	37	83	30	47	44
Schools lacking electricity (%)	62	24	80	42	68	48
Schools lacking drinking water (%)	13	3	10	16	17	13
Schools lacking blackboard (%)	4	2	5	9	11	8
Schools lacking computers (%)	90	84	87	60	92	88
Schools lacking playgrounds (%)	41	23	71	21	43	41

NA = not available.

Sources: India Census 2005; Elementary Education in India: Where Do We Stand? ASER–Pratham Report, National Institute of Educational Planning and Administration.

Table 16: State and National Service Performance

Category	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa	Rajasthan	National
Number of pupils	6,668,083	7,916,061	1,184,312	5,196,165	7,916,061	135,426,938
Students per classroom (number)	34	33	22	40	33	40
Schools lacking full-time head teacher (%)	11	84	42	50	30	49
Repeaters in primary and upper-primary schools (%)	43	49	50	49	48	NA
Student-teacher ratio (median)	36	25	25	39	33	35
Teacher-attendance rate (average)	91	84	97	87	85	NA
Schools within 5-km of block headquarters	17	30	34	61	14	29

km = kilometer, NA = not available.

Sources: India Census 2005; Elementary Education in India: Where Do We Stand? ASER–Pratham Report, National Institute of Educational Planning and Administration.

Factors contributing to poor teacher performance include apathy, insufficient leadership, school management plans, poor incentives, unions, inadequate training, and salary differentials. In a study entitled “Private Schools Serving the Poor”¹⁰ by James Tooley, teachers’ salaries in government schools were compared with those in recognized and unrecognized private schools (Table 17).

Teachers’ salaries per pupil in government schools are 2.44 times higher than those in private schools. Almost 95% of schools’ budgets are typically spent on teachers’ salaries. Using private sector partnerships where possible, the government should focus on school management and teachers’ training facilities to improve education. There is a bigger issue around teacher training and supply that needs to be considered. Unlike in the Middle East where educational institutions have brought in international teachers from South Africa,

Australia, and the United Kingdom, current pay levels in India do not allow the private or public sectors to attract an international teacher pool.

In addressing teacher performance-related issues, the government should consider performance-linked management contracts and partnership models to support school improvement services, as done in the United Kingdom.

Summary of State Consultations

The team identified key areas of concern and challenges in the five states under study. Details of the consultation discussions are presented as a background note in Appendix 2. Statewide local PPP experiences and evaluation are available separately on request.

Table 18 summarizes the results of the consultations.

Table 17: Teachers’ Salaries, by School Type, per Pupil

Management type	Mean monthly salary of full-time teachers at Grade 4 (in Rs)	Mean class size	Salary per pupil	Ratio of unit costs (private unrecognized base)
Government	10,071.76	42.37	237.71	2.44
Private unrecognized	1,360.33	13.96	97.45	1.00
Private recognized	3,626.79	37.15	97.62	1.00

Source: Tooley, J. and P. Dixon. 2005. Private Schools Serving the Poor. Working Paper: A Study from Delhi, India. University of Newcastle Upon Tyne, England. www.ncl.ac.uk/egwest

¹⁰ Tooley, James and Pauline Dixon. 2005. Private Schools Serving the Poor. Working Paper: A Study from Delhi, India. University of Newcastle Upon Tyne, England. www.ncl.ac.uk/egwest

Table 18: Key Strengths and Weaknesses in the State's Education Sector

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
Strengths	<ul style="list-style-type: none"> The state has a high number of non-permanent buildings and significant number proportion of schools with toilets. The state has significantly increased its literacy rate (on an initial small base), pointing to an increased access and appetite for education. 	<ul style="list-style-type: none"> The state is fairly advanced in certain aspects of school infrastructure such as having non-permanent school buildings, drinking water, and electricity supply. The state has an impressively low dropout rate while accessibility to primary education is fairly high. 	<ul style="list-style-type: none"> The state has achieved a reasonable level of accessibility to primary education. The state has access to some of the biggest information and communication technology (ICT) companies in the country, which allowed it to build ICT provision and/or penetration in schools. 	<ul style="list-style-type: none"> The state has a reasonable number of hard infrastructure such as high number of non-permanent buildings and not many schools require major repairs. It also has a significant number of schools with toilets. 	<ul style="list-style-type: none"> Improvements in the education sector is seen in the increase of accessibility levels. However, much remains to be done in this sector.
Weaknesses	<ul style="list-style-type: none"> The state has infrastructure gaps such as lack of playgrounds, separate toilets for girls, and inadequate provision of electricity and drinking water. 	<ul style="list-style-type: none"> The state has infrastructure gaps such as inadequate area for playgrounds, and lack of advanced infrastructure such as computers in schools. 	<ul style="list-style-type: none"> The state has infrastructure gaps such as lack of playgrounds, separate toilets for girls, inadequate provision of electricity, high percentage of schools in need of major repairs, and lack of advanced infrastructure such as computers in schools. 	<ul style="list-style-type: none"> It has service delivery issues such as teacher absenteeism, inadequate and/or absent teacher supervision, and school management. 	<ul style="list-style-type: none"> The state has significant gaps in basic infrastructure, such as lack of playgrounds, separate toilets for girls, inadequate provision of electricity, high percentage of schools in need of major repairs, and others.

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Table 18: *continued*

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
	<ul style="list-style-type: none"> It has service delivery issues such as teacher absenteeism, inadequate and/or absent teacher supervision, and school management. 	<ul style="list-style-type: none"> It has service delivery issue, with teacher absenteeism as a major issue. 	<ul style="list-style-type: none"> It has declining level of student (especially girls) enrolment, due mainly to social issues. 	<ul style="list-style-type: none"> Rural accessibility is inadequate. Education professionals are concentrated in urban areas. 	<ul style="list-style-type: none"> It has service delivery issues such as teacher absenteeism, inadequate and/or absent teacher supervision, and school management. Rural accessibility is inadequate. Education professionals are concentrated in urban areas.
Local Public–Private Partnership (PPP) Experience	<ul style="list-style-type: none"> The Computer-Aided Learning Program involves about 1,000 schools and is implemented in partnership with private foundations. 	<ul style="list-style-type: none"> Residential schools with boarding facilities for out-of-school girls—These residential schools are setup for girls who come from households with income levels below the poverty line, and from educationally backward districts. The schools are managed by organizations (NGOs) and funded by the state. 	<ul style="list-style-type: none"> Rural residential public schools—This scheme aims to provide quality education in rural and semi-urban areas in the state. The state provides land and bears 50% of the recurring costs while the private partner bears 100% of the nonrecurring (capital) costs and the balance 50% of the recurring costs. 	<ul style="list-style-type: none"> Voucher system for education—This scheme is being tried out on a pilot basis in two districts in a slum area. Under the scheme, parents of out-of-school children are provided vouchers to send their children to specified private schools. 	<ul style="list-style-type: none"> None

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Table 18: *continued*

Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
<ul style="list-style-type: none"> Adoption of schools program – This means that private entities adopt schools, based on nonprofit motive, for both capital cost, by way of construction, and recurring cost. 	<ul style="list-style-type: none"> Computer-Aided Learning Program— Select primary schools function as learning centers equipped with computer systems to train teachers and to provide computer-aided learning for children. Integrated Education for the Disabled— This is implemented through NGOs in all state districts. Activities under this program include conducting medical camps, appointment of special teachers, and running resource rooms and/or day care centers. Alternative and innovative education for out-of-school children—The program is run by NGOs and funded by the state under the Sarva Shiksha Abhiyan program. 	<ul style="list-style-type: none"> Improvement of public high schools—The state is proposing partnerships with NGOs and other private entities to improve the hard infrastructure of specific schools under this program. 		

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Table 18: *continued*

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
Evaluation	<ul style="list-style-type: none"> Although, the state has developed its infrastructure, it stills lacks certain key infrastructure such as playgrounds and separate toilets for girls. Development of infrastructure could be achieved via a PPP model, hence, it should be given first priority. The state still needs to ensure that utilities such as water and electricity are supplied to the schools. Improvement of service delivery and management could be achieved through customized PPP management contracts (discussed earlier in this report). 	<ul style="list-style-type: none"> While the state has the basic infrastructure in place, it needs to develop more advanced infrastructure such as access to computers in classrooms. Development of advanced infrastructure would be easily amenable to a PPP model. The state can develop its existing not-for-profit model for Computer-Aided Learning as a PPP model. Addressing teacher absenteeism would require statewide policy reform, strong political will, and ability to incentivize teachers to perform their duties. This is not possible through PPP alone. 	<ul style="list-style-type: none"> As the state has an advantage in ICT sector, it could explore PPPs with private players in the sector to improve advanced infrastructure (computers, online access in schools, and others). PPPs could also be used to improve education quality and/or experience through computer-aided learning. To improve basic hard infrastructure, the state could also look at customizing the “Build, Lease, and Maintain School Buildings” PPP model proposed in this report. 	<ul style="list-style-type: none"> As in Rajasthan, service delivery and management could be improved through customized PPP management contracts. PPPs in building and operating schools in rural areas could be a way of mitigating rural accessibility issues. However, scale and demand risk would be key factors in such a model. Addressing teacher absenteeism would require statewide policy reform, strong political will, and ability to incentivize teachers to perform their duties. This is not possible through PPP alone. 	<ul style="list-style-type: none"> To improve basic hard infrastructure, the state could look at customizing the “Build, Lease, and Maintain School Buildings” PPP model proposed in this report. This is also a way of mitigating rural accessibility issues. As in Rajasthan and Uttarakhand, service delivery and management could be improved through customized PPP management contracts. Addressing teacher absenteeism would require statewide policy reform, strong political will, and ability to incentivize teachers to perform their duties.

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Table 18: *continued*

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
	<ul style="list-style-type: none"> Addressing teacher absenteeism would require statewide policy reform, strong political will, and ability to incentivize teachers to perform their duties. This is not possible through PPP alone. 		<ul style="list-style-type: none"> While enhancing education experience and improving infrastructure could have a positive impact on student enrolment, the state also needs to raise community awareness on the benefits of education to address the social issues that stymie enrolment rates. 		
Next Steps	<ul style="list-style-type: none"> Improve key infrastructure aspects such as provision of playgrounds, separate toilets for girls, potentially through PPP. State should ensure electricity supply at schools. Improve service delivery through customized management contracts. Build stakeholder consensus to address teacher absenteeism. 	<ul style="list-style-type: none"> Improve advanced infrastructure facilities such as computers, online access in schools, potentially through PPP. Build stakeholder consensus to address teacher absenteeism. 	<ul style="list-style-type: none"> Improve basic infrastructure aspects such as provision of playgrounds and separate toilets for girls, potentially through PPP. Improve advanced infrastructure aspects, potentially through PPPs, with private ICT companies in the state. State should ensure electricity supply at schools. Raise community awareness (especially in rural areas) on the benefits of education. 	<ul style="list-style-type: none"> Improve service delivery through customized management contracts. Build stakeholder consensus to address teacher absenteeism. 	<ul style="list-style-type: none"> Improve basic infrastructure aspects such as provision of playgrounds, separate toilets for girls, and others, potentially through PPP. Improve service delivery through customized management contracts. Build stakeholder consensus to address teacher absenteeism.

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Table 18: *continued*

	Rajasthan	Tamil Nadu	Andhra Pradesh	Uttarakhand	Orissa
Potential Public–Private Partnership Frameworks	<ul style="list-style-type: none"> Build, Lease, and Maintain School Building Infrastructure Model—This PPP model may be customized to address the infrastructure gaps. Profit incentive makes this more sustainable than the current “Adopt a School” program. Management contracts—This PPP model may be customized to address the service delivery, management, and supervision gaps. 	<ul style="list-style-type: none"> ICT education centers — This model may be customized to address the advanced infrastructure (lack of computers, online access) gaps. Profit incentive makes this more sustainable than the current “Computer-Aided Learning” program. The state has set up residential schools (managed by NGOs) for out-of-school girls in rural areas. Although accessibility was not discussed as an issue, this program has potential to be administered as a PPP model. The model in this report (based on residential schools in Andhra) may be customized for this purpose. 	<ul style="list-style-type: none"> KPMG notes that the state intends to pursue for-profit PPP options only for greenfield developments. While this limits development options, the following models might help the state to leverage its strengths to address some issues in this sector. ICT education centers—As in Tamil Nadu, this model may be customized to address the need for advanced infrastructure. Build, Lease, and Maintain School Building Infrastructure Model—This model may be customized to address the basic infrastructure gaps. The state has developed a model for setting up residential schools in rural and/or semirural areas. This model could be customized for greenfield¹¹ site developments in for-profit PPP context. 	<ul style="list-style-type: none"> Build, Lease, and Maintain School Building Infrastructure Model —This PPP model may be customized to build and operate new schools in rural areas. This could mitigate shortage of schools and staff and/or teachers in rural areas. Management contracts—This PPP model may be customized to address service delivery, management, and supervision gaps. 	<ul style="list-style-type: none"> As in Uttarakhand, the “Build, Lease, and Maintain School Building” infrastructure model may offer some solutions. This PPP model may be customized to build and operate new schools in rural areas. This could mitigate shortage of schools and staff and/or teachers in rural areas. Management contracts—This PPP model may be customized to address service delivery, management, and supervision gaps.

Source: KPMG.

¹¹ Greenfield project = a project without any constraints imposed by prior work.

The team listed some key strengths and weaknesses of the state’s education sector and evaluated which PPP framework can be used to leverage the state’s strengths and mitigate its weaknesses.

While each state has its unique challenges, they also share similar strengths and weaknesses. Rajasthan and Uttarakhand have similar challenges and appear to be in the same development trajectory as Tamil Nadu and Andhra Pradesh. The similarities in issues among some states may facilitate the rolling out (with required modifications) of PPP pilot projects in these states.

Recommendations for Public–Private Partnership Models for the Education Sector in India

This report focused on identifying potential public–private partnership (PPP) and/or private finance initiative (PFI) solutions to address specific challenges such as developing physical infrastructure and improving school services. This latter approach will require, among others, government support through incentives and performance schemes based on teachers’ effective provision of education.

The team has identified several potential PPP models for further consideration. The key parameters of each model are outlined in the subsequent section. Table 19 summarizes the

suggested PPP models. Future steps should include detailed financial and economic assessments, following the Evaluation Framework developed by the team.

Management Contracts

Management contracts offer a potential framework for providing education and school management through a partnership between state governments and private providers. Such arrangements will allow public access to the knowledge, expertise, and management skills of private providers. Payments under management contracts can be performance-based, offering sufficient incentive for private providers to attain positive outcomes. Such contracts also limit provider risks in such areas as building performance and broader school delivery programs. The government should review existing budgets as a potential source for service payments required by management contracts. Bundling schools into clusters can create a financial threshold that is adequate to attract more private providers and enable them to apply economies of scale. State governments also should consider the benefits of clustering schools by geographic location for a management contract program for the following reasons:

- Bundling allows private providers economies of scale.
- Larger contracts stimulate interest of private providers.

Table 19: Summary of Proposed Public–Private Partnership Models: Education

Issues to be Addressed	Proposed Public–Private Partnership Model
Teacher quality and performance	<ul style="list-style-type: none"> • Management contracts <ul style="list-style-type: none"> ▪ Mentoring Program for Schools ▪ School Management Program ▪ Teacher Supply and Training • Information and Communications Technology facilities and training
Building design condition and performance	<ul style="list-style-type: none"> • Build, lease, and maintain building infrastructure • Residential schools in rural areas • Management contracts for facilities management services

Source: KPMG.

- Pooling budgets across schools increases the government’s negotiating power.
- More efficient procurement processes offer greater cost effectiveness.

While management contracts improve service delivery more quickly within a specific area, successful PFIs create a larger impact. State governments should consider developing a database of contracts and suppliers for different schools to aid centralized procurement, particularly in the prequalification of contractors and in drafting enforcement mechanisms, to improve the overall efficiency and effectiveness of the program.

Mentoring Program

Under the mentoring program, private providers stipulate a team of 5–6 specialists, including a head teacher and subject specialists (English,

math, science, language, and sports), to work closely with the existing head teacher and support staff on school management and subject delivery. The team should also assume responsibility for teachers’ training in specific areas. In this manner, private providers will work closely with the school team in partnership with existing staff, thereby minimizing conflict and tension.

A mentoring contract should encompass 2–5 years. Such arrangements will take time to produce positive educational outcomes; short-term contracts, i.e., less than a year, typically will limit sustainable improvement. Normally, the financial terms would be structured as direct staff consulting approach, i.e., the school will pay hourly rates for the team of specialists, based on their utilization or total monthly fees. Table 20 outlines the advantages and disadvantages of the mentoring program.

Table 20: Advantages and Disadvantages of a Mentoring Program: Education

Advantages	Disadvantages
<ul style="list-style-type: none"> • It is relatively simple to procure and contract. • Collaborative partnership works well with local stakeholders such as teachers and head teacher. • It assists in the development of leadership and value ethos at school level. • Enables easy and visible improvements such as in school finances and classroom education. 	<ul style="list-style-type: none"> • It lacks established performance indicators to measure the success or failure of the initiative. • It lacks adequate numbers of qualified mentors, trainers, and teachers. • Affordability constraints for some user groups. • Focus and scope are narrow.

Source: KPMG.

Case Study 11: Global Education Management Services—A Case Study on School Management

Global Education Management Services (GEMS), a private provider for schools, participates in the operation and management of schools worldwide, e.g., the Middle East, India, Europe, and South Africa. GEMS provide school management support services to schools in Abu Dhabi. The salient features of the GEMS model include:

- Management services with varying structures and degrees of complexity, customized to match differing needs. Typical management services (most of which are discussed earlier) include contracts for school supervision, teacher recruitment and training, facilities management, and support services (information technology and others) management.
- Prior to accepting a contract and quoting a price, GEMS typically audits the school to ensure successful delivery of services.
- GEMS prices its services at a premium and mid-market category depending upon the level of involvement required.

Source: KPMG.

School Management Program

Under the school management program, private providers manage daily school operations and finances. This program involves outsourcing certain roles, e.g., head teacher, headmistress, and supervisors, as well as accounting and financial functions to private providers, using school-specific short- or long-term fee-for-service contracts. This option is useful for schools that lack full-time head teachers. Table 21 outlines the advantages and disadvantages of a school management program.

Teacher Recruitment and Training Contract

This model focuses mainly on improving teacher quality and classroom education by confronting issues such as teacher apathy and absenteeism.

The government will engage private providers for services that include:

- ad hoc teacher recruitment;
- provision of an identified number of teachers that maybe used across subjects in a cluster of schools; and
- teacher training for areas such as education delivery, classroom presentation, curriculum support, and student management.

Contracts can be structured as ad hoc payments based on the number of teachers provided or as fixed monthly payments. Normally, the contract period is 1 year or more. Clustering schools will benefit from the quicker and more efficient procurement under this model. Table 22 outlines the advantages and disadvantages of teacher recruitment and training contracts.

Table 21: Advantages and Disadvantages of a School Management Program

Advantages	Disadvantages
<ul style="list-style-type: none"> • It is relatively simple to procure and contract. • An external supervisor is more likely to be independent from organizational politics and could freely take steps that are in the best interests of the school. • The program’s scope is broad in the sense that overall managerial supervision could be expected to lead to an improvement of service delivery. • It assists in building a school leadership and value ethos. 	<ul style="list-style-type: none"> • Affordability and scalability could be an issue in the context of India. • Lack of a larger resource pool to support the wider program. • Limitation in powers delegated to external school managers and/or head teachers can limit the ability to achieve desired results. • Resistance from teachers, parents, and other stakeholders is possible.

Source: KPMG.

Table 22: Advantages and Disadvantages of Teacher Recruitment and Training Contract

Advantages	Disadvantages
<ul style="list-style-type: none"> • It could provide immediate solution to teacher absenteeism. • It is able to achieve direct improvement in specific areas. • It improves classroom and school environment. 	<ul style="list-style-type: none"> • Resistance from teachers and unions is possible. • Availability of teachers to support this procurement model could become a constraint. • Servicing rural areas could be difficult.

Source: KPMG.

Since managing the overall supply of teachers constrains private providers, the government may consider a broader education program that focuses on developing colleges that train quality teachers. Even privately run schools find teacher recruitment and retention their single largest operating challenge. These schools are considering setting up feeder teacher training schools and accreditation programs.

Information and Communications Technology Education Contracts

Under this option, private providers build, maintain, and provide ICT services in government schools, reserving the option to use ICT infrastructure commercially outside school hours. Private providers would assume responsibility for providing hardware, software, and ICT teachers to train school children.

Although this study did not develop a detailed financial analysis, third-party revenues are unlikely to support the entire ICT education provision. Given the scope of individual contracts, the real challenge would involve attracting significant private providers to bid against local players interested in internet kiosk facilities but with little experience in ICT education. This program will also benefit from bundling of schools together with a view to increase the contract size and allow the private sector to bring in economies of scale.

Larger Public–Private Partnership and/or Private Finance Initiative Contracts

As mentioned earlier, countries such as the United Kingdom have used PFI and/or PPP models to address their school building programs. This report suggests similar models for India.

Build, lease, and maintain school building infrastructure. This report recommends the build, lease, and maintain model for inner-city and urban schools. Private providers would share responsibility with state governments to manage school buildings, playgrounds, and libraries. While private providers must make the buildings

available to a certain standard during school hours, they are also entitled to use the building facilities after school hours to generate third-party revenues.

Service specifications. Private providers will be responsible for some or all of the following services:

- upgrade buildings to minimum prescribed standards, i.e., toilet facilities, fans and lights, furniture, blackboards, playground access, and basic ICT connectivity;
- physical infrastructure management;
- cleaning and security;
- repair and maintenance of furniture and fittings;
- consumables, e.g., chalk, notebooks, and stationery;
- utilities management; and
- drinking water and midday meals.

Viewed mainly as an infrastructure management solution, this model can also include education services. The public sector may consider adding the following services:

- supply of teachers on ad hoc basis,
- teacher training,
- ICT training,
- administration of regular examinations, and
- after-school classes and tuitions.

This model would structure the selection of private providers according to the government's final service specification for its school PPP program. In building management solutions, a typical consortium would be led by construction companies. When education-related services are included, the bidding consortia would include an education provider. Such arrangements will be determined during pre-qualification.

Payment mechanism. Once the school buildings are commissioned and ready for use, annual payments to private providers can be structured as annuity payments, subject to performance and availability deductions. Education services—e.g., teacher recruitment and training—can be provided on an ad hoc basis.

Contractual tenure. Contracts generally cover a period of 15–25 years, depending on financial viability of the project.

Potential for generating third-party revenues. Private providers can use the school building infrastructure for private (for profit) education courses. The options could include

- professional training courses,
- after-school clubs,
- sports training,
- vocational training,
- adult education, and
- language courses.

Limiting the use of facilities to education-related business opportunities will minimally disrupt school activities and complements the building of school infrastructure. Table 23 outlines the advantages and disadvantages of this model.

Residential Schools in Rural Areas

This report recommends the use of residential school PPP model already initiated by the state government in Andhra Pradesh.

Service specification. The state government will invite private providers to develop, build, and manage residential school facilities, including educational services and residential and/or hostel facilities. Such arrangements will include

- building and maintaining school buildings along with residential complexes for students, teachers, and support staff;
- education delivery, including teachers and support staff;
- consumables, e.g., textbooks, stationery, notebooks, and chalk;
- residential services including catering, laundry, social activities, security, and lodging; and
- sports facilities such as playground and recreational areas.

Residential PPPs provide both building infrastructure and education. Accordingly, bidders will be required to demonstrate ability to provide both facets.

Financial arrangements. The state government may structure payments to private providers in different ways, e.g., an annual charge per pupil, a fixed annual sum for residential facilities, or a combination of fixed charge that cover provider-incurred costs and variable charges based on state-allocated pupil numbers.

Third-party revenues. Private providers may be allowed to supply a pre-specified percentage of school and residential spaces on a user-based system. The Andhra Pradesh government provided financial assumptions that allowed the study team to conduct a sensitivity analysis on subsidies that may be required to support this PPP model.

Table 23: Advantages and Disadvantages of Build, Lease, and Maintain School Building Infrastructure

Advantages	Disadvantages
<ul style="list-style-type: none"> • It focuses on bringing school buildings up to a certain standard. • It provides building availability and performance-based payments. • No upfront payment by the public sector is required for capital expenditure requirement. • Focuses on whole-life costing for school building • International evidence shows improvement in education outcomes with building improvement. 	<ul style="list-style-type: none"> • Affordability is an issue—in terms of large financial commitment from public sector for financial viability of the project. • It requires significant public sector capability in procurement management. • It requires extensive local stakeholder consultation.

Source: KPMG.

- The state government will be entitled to a certain percentage of enrolment, against which it will provide an annual cost cover. Private providers will be entitled to allocate the remaining positions on a fee basis. Further financial modeling will assess the allocation of seats between state government and private providers and also determine fee levels.

to an annual and/or monthly charge, paid from the school’s operating budget. Some of the states have already experimented with this model. Bundling schools into clusters will build economies of scale in the delivery of this model. Table 24 summarizes the advantages and disadvantages of this model.

Facilities Management Contract

State governments may consider management contracts for 5–10 years to outsource services such as cleaning, teacher recruitment, building maintenance, catering (already in place under the midday meals plan), playgrounds, utilities management, organizing and hosting teacher training modules, and financial and administrative management. In lieu of providing these services, private providers will be entitled

Conclusion

The delivery of education to primary and upper primary schools has substantial gaps, particularly in physical infrastructure and teachers’ quality and performance. International experience shows the effectiveness of the different types of PPP models presented here, which will require per project specific requirements through a detailed financial, legal, and technical evaluation.

Table 24: Advantages and Disadvantages of the Facilities Management Contract

Advantages	Disadvantages
<ul style="list-style-type: none"> • Procurement and delivery is relatively simple. • It is likely to be affordable and within existing school budgets. • It has potential for immediate and visible improvement in school maintenance. 	<ul style="list-style-type: none"> • Service providers are expected to be largely small local players. • It does not address the gap in physical infrastructure.

Source: KPMG.

Recommendation and Next Steps

This study conducted a rapid assessment (including consultations with state governments) of the primary health care and primary education sectors of India to identify how key sector challenges and constraints might be better served by using public–private partnership (PPP) modalities. Both India’s and international experiences of sectoral PPPs were looked at and a number of PPP models were proposed under the chapter where each sector’s assessment was presented. These are summarized again in Table 25.

Detailing out Model Public–Private Partnership Structures

These PPP models are generic models and are useful for targeting the requirements identified in the sector analysis and state consultations. These include improving physical infrastructure in health care and education, and specific

sector services in rural areas. However, these models will need further details if they are to be adopted based on the needs of a location, project, a government project’s sponsor or end-user—which have its own dynamics in terms of sociopolitical realities—financial capabilities, willingness of government and private sector to share risk, existing PPP experiences, end-user experiences and financial situations, economies of scale, and others.

For instance, a particular model might not work if the investment is expected to come fully from a private sector player and if the end-user base is too small to provide economies of scale to cover the operator’s investment. However, clustering or bundling a number of smaller noneconomic locations or projects into a package, which also combines government’s health subsidy or education’s voucher-based schemes, will likely enhance the interest of the private sector.

An additional area which needs to emerge from specific project structuring is **performance**

Table 25: Summary of Public–Private Partnership Models Proposed for Health and Education

Health PPP Models	Education PPP Models
A. Primary focus on building and maintaining physical infrastructure	
<ul style="list-style-type: none"> • Hospital PFI • Build, own, and operate diagnostic centers 	<ul style="list-style-type: none"> • Build, lease, and maintain school buildings • Residential schools in rural areas
B. Primary focus on service provision	
<ul style="list-style-type: none"> • Primary health care center • Management contracts • Mobile clinics 	<ul style="list-style-type: none"> • Mentoring program • School management contract • Teacher recruitment and training contracts • Information and communications technology education centers

Source: KPMG.

benchmarks for the private player to achieve and which should be linked to a payments structure as an incentive for the best performance possible from the PPP.

Pilot Projects Development

At the workshop held to identify pilot projects, a number of PPP models were translated into “concept notes” and distributed to state governments for triggering thought around adapting a particular model to a local project scenario. These concept notes (Appendix 1) led to over 20 ideas identified by state governments for possible structuring as pilot projects. The report highly recommends the development of some of these pilot projects as model structures for replication, with detailed project analysis and structuring leading to a bid process and award to a private player.

Undertaking such an exercise will lead to capacity building of relevant government officials as well as to the emergence of PPP projects that demonstrate success and are available for replication.

Steps in Pilot Project Structuring

For pilot projects, the following steps must be developed as part of the PPP procurement process:

- Develop a detailed output specification based on international and local experience. Health specifications could include medical equipment, maintenance levels, and operating and performance levels for monitoring purposes. Education specifications could include setting attainment levels, building details, and ICT requirements. The team recommends using technical advisors who have both local and international experience.
- Develop a public sector comparator to facilitate benchmarking of delivery costs for services stipulated by the model, and consequent value-for-money analysis and risk allocation. This process involves reviewing the typical capital and operating cost investment levels expected from private providers and determining the potential of fee-for-service and third-party income.
- Initiate a state government affordability assessment that covers likely cost overruns and compare the potential cost for private providers against currently available fund, state government allocations, and available central government budgets. This involves reviewing the potential for using central government plans such as viability gap funding or annuities to support financial and economic viability.
- Consult with international attorneys with broad PFI experience, and with local attorneys who understand local laws and regulations, for their legal opinion on the model framework and the regulatory position for the delivery of the project.
- After the technical, legal, and financial analysis are completed the evaluation framework must be revisited to evaluate the project and the model framework for delivery.
- The project would require a market consultation exercise and model to test the interest and concerns of private providers.
- Based on the conclusions of the financial, technical, legal, and market consultation analysis, state governments should develop an outline business case before seeking procurement approval of the project and before submission for central government funding.
- Subject to necessary approvals, state governments should initiate a procurement process that includes
 - finalizing the specification documentation;
 - developing the pre-qualification evaluation criteria and pre-qualification questionnaire (PQQ) document;
 - developing the invitation to negotiate (ITN) and bid evaluation criteria;
 - developing the legal contractual documents and the payment mechanism (contract and financial model);

- advertising the project for expressions of interest;
- issuing a PQQ document, evaluation of the PQQ responses, and shortlisting prequalified bidders;
- issuing the ITN, including instructions to bidders, output specifications, payment mechanism, model contract to prequalified bidders, holding clarification meetings with bidders, and evaluating their responses;
- evaluating the ITN responses regarding technical, financial, and legal solutions;
- selecting preferred bidder (and possibly keeping a reserve bidder);
- reviewing the project’s technical, financial, and legal assessment regarding the preferred bidder proposal;
- negotiating contract arrangements;
- reviewing the Evaluation Framework on the agreed position with the preferred bidder;
- obtaining final approval from the different state governments and the central government on the preferred bidder proposal, as necessary; and
- achieving financial closure, including review of agreed-upon funding arrangements.

These “next steps” should be delivered jointly by national and state government officials and technical, financial, and legal advisors. Given the exploratory stage of models, constant referral to the Evaluation Framework and consultation and consensus-building exercises are required. This should also be supported by public sector training in delivery and procurement of PPP contracts.

Stakeholder Workshops

Given the early stage of PPP in the primary health care and primary education sectors in India, and also because generally nonurban and less well-off locations will require much of the improvement in services and in infrastructure, capacity building of local governments, end-users’ base, and the private sector will be necessary. This should be undertaken during project structuring and at post bid closure

to disseminate the benefits of PPP projects to a wider audience and to mainstream its acceptability.

Development of Policy and Funding Facilities

From preliminary analysis, the study team has identified the need for an enabling PPP policy environment that is standard and transparent; that provides comfort to private investors, end-users, and the government in identifying clear processes for PPP procurement; that has adequate risk-sharing mechanisms; and that provides clear obligations for all parties. Project specific contracts and documentation, if disseminated across states as good guideline materials, will also increase comfort and replication by newer project sponsors of similar projects.

Development of government funding schemes, such as project development funds or viability gap funds facilities (for both capital and operations expenditure), which can be dovetailed with PPP structures for health and education sectors, will also influence the development of successful PPP structures for other sectors.

Conclusion

This report has made an attempt to develop some quick solutions, based on PPP modalities for the primary health care and primary education sectors in India, and includes useful information on sector challenges in specific states and in the country. It is hoped that this report will lead directly to the development of pilot PPP projects, and indirectly to help build awareness in finding alternative solutions to sector needs. Whether or not awareness building is direct or indirect, the findings presented in this report are crucial for the development of the health and education sectors in India, to help improve the lives and livelihoods of citizens and eventually lead to the economic growth of the country.

Appendixes

APPENDIX 1

Proposed Public–Private Partnership Models: Concept Notes

Concept Paper on Proposed Public–Private Partnership Models for Health

Proposed Model:

I. Hospital Private Finance Initiative (PFI) Model

Background

Health spending in India at around 4.8% of GDP is not considered at par with spending in Organisation for Economic Co-operation and Development member countries. Therefore, while there has been considerable success in developing physical infrastructure and coverage of primary health care provision, significant challenges remain across the country in health care provision, especially in terms of accessibility, coverage, rural areas, ineffective management, and inadequate quality and availability of health care professionals.

Public–private partnership (PPP) models have been successful internationally in helping alleviate some of these challenges. Through research (on global and domestic experiences) followed by consultations with stakeholders in five states, a number of PPP models have been proposed for the health care sector including this one. The aim is to structure a pilot project around this proposed PPP modality to demonstrate its effectiveness in meeting some of the existing challenges in India's health care.

Sector overview and key challenges

Unlike primary health care, where public facilities are generally underutilized (especially at PHC level), the secondary and tertiary public health facilities (hospitals) are in high demand. Public hospitals are unable to meet the growing demand, and the infrastructure is either inadequate or unable to cope with the pressure of demand. In addition, quality of services provided in secondary and tertiary care and improved efficiencies are also much desired. Due to demand outrunning supply, and with constraints on public expenditures, there is need for innovative PPPs to improve efficiencies, quality, and address financing gap in secondary and tertiary health care. However, given the complexity of services rendered for hospital care, it might be better to unbundle the complex services to manageable level and contract out some of them. Based on global experiences, some of the aspects of hospital value chain (listed below) can be unbundled and implemented through a PPP.

Brief project description

Objective: The PFI model is aimed at public sector hospitals and for delivering (i) hard infrastructure (new or refurbished facilities), (ii) associated hard infrastructure lifecycle maintenance services, and (iii) "soft" or operational services such as cleaning, catering, and facilities management services.

Proposed Project Structure: A partnership between private and public sectors where the private sector is responsible for providing the above facilities and services. In return, the public sector pays for these facilities and services, with the payment linked to the private sector's performance and benchmarked against the public sector's own previous cost in providing these facilities and services. The contract could be structured over 25–30 years.

(i) Private Sector Role

Under the PPP Hospital PFI contract, the following could be included:

- New build and/or partly new build and/or refurbishment and minor works of the hospital building.
- Installation, commissioning, and lifecycle maintenance of hospital equipment.
- Provision of information management and technology solutions.
- Facilities management such as cleaning, laundry and linen services, catering, security, and medical waste disposal management.
- Helpdesk and reception management.

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Proposed Model: I. Hospital Private Finance Initiative (PFI) Model (*continued*)

(ii) Public Sector Role

It sets performance parameters for the private sector player's role, monitors these parameters, and makes payments as per contract. The public sector will link the payment for services to risks transferred, its own cost structures, and experiences.

(Note: A health PFI model can also be considered for setting up medical colleges through a partnership between district hospitals and a private sector player.)

*The model will have several issues and criteria that will **only** be determined when a specific project commences, and will be structured based on local conditions. See below.*

Technical issues

Each PFI project is different depending on local circumstances. However, some common features that hospital PFIs share are (i) the public sector authority signs a contract with a private sector "operator;" (ii) during the period of the contract, the operator will provide certain services, which are currently provided by public hospital authorities; (iii) the operator is paid for the work over the course of the contract and on a "no service no fee" performance basis; (iv) the procuring authority will design an "output specification," which is a document setting out what the operator is expected to achieve; (v) if the operator fails to meet any of the agreed standards, it would lose an element of its payment until standards improve; (vi) if standards do not improve after an agreed period, the public sector authority is entitled to terminate the contract; and (vii) PFI is therefore dependent on both the standard of contracts used and the determination of the parties to enforce them.

Financing plan issues

- The payment is typically structured as an annual charge payable only on commencement of the entire hospital facilities and adjusted for performance and service availability standards. The key principles include:
 - o Commencement of payment only on completion of the construction phase and commissioning of the building and equipment. In case of phased completion, payment triggers are set at the end of each phase.
 - o Private sector is entitled to an annual charge on the commissioning of the entire hospital facility. The payment mechanism provides for deduction due to performance shortfalls and unavailability of rooms and/or space in the hospital.
- A limited third-party revenue may be generated. The private sector may consider options such as leasing of space for retail operations, paid catering facilities, car parking facilities, paid nursery and/or day care facilities.
- A typical PFI contract is structured over 25–30 years, although a number of contracts have extended up to 40 years, largely to make the annual charge more affordable.

Institutional structuring issues

The typical PFI provider has three parts or legal entities: a holding company (HC), a capital equipment or infrastructure provision company (CEC), and a services or operating company (OC). The main contract is the concession contract between the government and HC. The HC then flows down requirements to CEC and OC, with legal contracts to enforce. These two legal entities then typically flow down their requirements to subcontractors, again with contracts to match. Typically the main subcontractors are the same companies as the shareholders of the HC. Large PFIs are often let to consortiums of companies rather to individual firms. The CEC may not be a separate legal entity but rather one of the prime shareholders taking on the responsibility to provide the capital equipment (e.g., the hospital).

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Proposed Model: I. Hospital Private Finance Initiative (PFI) Model (*continued*)

<p>Potential private sector players expected to respond</p> <ul style="list-style-type: none"> • Existing hospital management companies. • Large construction and service provider companies. • Specialized private companies—hospitality, cleaning, catering, and others.
<p>Expected outcomes of the project</p> <ul style="list-style-type: none"> • Improved quality. • Improved efficiencies—in both delivering facilities on time as well as in facilities maintenance and management. • Increased private sector investments (upfront investments, which are paid back on an annuity basis).
<p>Proposed PPP modalities to be considered and key structural issues</p> <p>PPP modality would be build-own-operate-transfer (BOOT) or design-build-finance-operate (DBFO) or some variant of these.</p>
<p>Value addition from ADB assistance</p> <p>ADB can assist in the following ways:</p> <p>(i) Transaction advisory assistance</p> <ul style="list-style-type: none"> • Develop a detailed financial analysis, including analysis of typical capital and operating cost investment levels of private sector, existing state budgets, potential for user charging, and consequently, affordability gap analysis. • Understand the potential for use of central government schemes such as viability gap funding or annuity model to support the financial and economic viability of this scheme. • Develop a detailed output specification including the specification of buildings, equipment, standards, maintenance levels, and operating and/or performance levels. • Assist in contracting process including bids, legal negotiations, and financial closure. • Confirm legal position on provision of PFI contracts for health services. <p>(ii) Provision of funding</p>
<p>Proposed processing stages and timelines</p> <ul style="list-style-type: none"> • States agree to undertake the pilot: Month 1 • Appointment of transaction advisory: Month 4 • PPP structuring: By Month 7 • Bidding process: Months 8–10 • Finalizing the PPP contract: Month 11

Concept Paper on Proposed Public–Private Partnership (PPP) Models for Health

Proposed Public–Private Partnership Model: II. The Build-Own-Operate (BOO) Model for Diagnostic Centers

Background

Health spending in India at around 4.8% of GDP is not considered at par with spending in Organisation for Economic Co-operation and Development member countries. Therefore, while there has been considerable success in developing physical infrastructure and coverage of primary health provision, significant challenges remain across the country in health care provision, especially in terms of accessibility, coverage, rural areas, ineffective management, and inadequate quality and availability of health care professionals.

Public–private partnership (PPP) models have been successful internationally in helping alleviate some of these challenges. Through research (on global and domestic experiences) followed by consultations with stakeholders in five states, a number of PPP models have been proposed for the health care sector including this one. The aim is to structure a pilot project around this proposed PPP modality to demonstrate its effectiveness in meeting some of the existing challenges in India's health care.

Sector overview and key challenges

Unlike primary health care, where public facilities are generally underutilized (especially at primary health care centers), the secondary and tertiary public health facilities (hospitals) are in high demand. Public hospitals are unable to meet the growing demand, and the infrastructure is either inadequate or unable to cope with the pressure of demand. In addition, quality of services provided in secondary and tertiary care and improved efficiencies are also much desired. Due to demand overshooting the supply, and with constraints on public expenditures, there is need for innovative PPPs to improve efficiencies, quality, and address financing gap in secondary and tertiary health care. However, given the complexity of services rendered for hospital care, it might be better to unbundle the complex services to manageable level and contract out some of them.

One area that can be considered for unbundling and outsourcing to the private sector is that of diagnostic services for which a build-own-operate (BOO) model can be structured.

Brief project description

Objective of PPP Model: This BOO model is aimed at delivering diagnostic services (such as CT scan, MRI, sonography) facilities through the private sector.

Proposed Project Structure: A contract between the public and private sectors whereby the private sector would provide under the contract (i) the installation and maintenance of diagnostic facilities (either within existing health centers and/or hospitals or independently) for public use at subsidized rates; and (ii) operational services for operating the equipment, undertaking diagnostic procedures, and collection of user charges. Payment to the private sector will be through a mixture of direct user charges and subsidy payments from the government.

(i) Private Sector Role

The range of services covered within the contract could include:

- installation, maintenance, and operation of new medical equipments such as MRI scan, ultrasound, sonography, and CT scan;
- maintenance, upgrade, and operation of existing medical equipments; and
- provision of doctors and medical assistants for the operation of the center.

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(ii) Public Sector Role

It sets performance parameters for the private sector player’s role, monitors these parameters, sets appropriate direct user charge levels for some user segments, subsidizes payments linked to performance, measures satisfaction of services to direct user charge paying consumers, and others.

*The model will have several issues and criteria that will **only** be determined when a specific project commences, and will be structured based on local conditions. See below.*

Technical issues

- A cluster approach by bundling cities and/or rural areas can be considered, with a view to providing adequate diagnostic services within the cluster. The private sector may consider a cluster for undertaking the management of all the diagnostic centers for coverage within the entire cluster, which may also include mobile facilities to cover a wider geographic area and improve utilization of the equipment. This could include one city hospital with 2–3 sub-district level hospitals or large health centers (community health centers) and further 10–15 primary health centers.
- Health authorities must also develop a common standard for equipment to be deployed and service standards. If the health authorities propose to hand over existing equipment, it may need to share certain risks in terms of performance and replacement.

Financing plan issues

- Depending on the political appetite for a user charging mechanism at a state government level, the public sector may explore user charging schemes to support the financial returns to the private sector. Typically, the private sector would be keen to set a monthly and/or annual charges payment mechanism that would cover a base component to cover their fixed operating costs based on a minimum predefined level of usage and a variable component including consumables and maintenance charges.
- In the event the state government is not keen on putting in place a user charging system, it will need to assess its existing budgets and additional budgets to support the annual fee payable to the private sector. In the case of existing facilities, authorities should consider their existing budgets for managing the facility. Depending on the nature of the user charging mechanism, the government may choose to subsidize part of the annual charges in relation to the pre-identified sections of household and/or population.
- Some health authorities may already have an existing schedule of charges that may be in force and that will need to be reviewed in line with this diagnostic program. The contracts also need to provide for benchmarking of charges over the contract term.

Institutional structuring issues

- Private sector may be permitted to offer different user charging mechanisms based on different variables, such as:
- Waiting periods and response time: The private sector may charge a premium for shorter waiting times or quicker delivery of reports.
- Income levels: The below poverty line (BPL) population would be eligible for health service, the cost of which could potentially be subsidized. Further, provisioning of pre-specified private services to identified poorer sections of the society could be contracted.
- Timing: The private sector may identify a time period in the day to provide a premium or free service.
- Depending on the financial assessment of the project, including the expected useful economic life of the equipment, the public sector could consider contractual arrangements with tenure of 5–10 years.

Potential private sector players expected to respond

- Existing diagnostic service providers.
- Equipment manufacturers.
- Other private sector players involved in hospital care (diversification within the sector).

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Proposed Public–Private Partnership Model: II. The Build-Own-Operate (BOO) Model for Diagnostic Centers (*continued*)

Expected outcomes of the project

- Improved quality and availability of diagnostic services.
- Improved efficiencies through new equipment and better asset utilization.
- Introduction of innovative service delivery models.
- Increased private sector investments (made upfront and paid back on an annuity basis).

Proposed PPP modalities to be considered and key structural issues

PPP modalities to be explored include BOO, build-own-operate-transfer (BOOT), management contract. The key structural issues are:

- The private sector may agree to share the demand risk on centers located in large hospitals, inner cities or within a network of health centers. The government may develop a referral arrangement with a network of hospitals. IT systems could support the processing of the subsidy element available to poorer sections of the community.
- Where the diagnostic centers have low demand, the bundling approach may assist in mitigating the demand risk. On the other hand, if the cluster is seen as low revenue generating or difficult to service due to geographical conditions, the public sector may choose to retain the demand risk.
- In bigger cities and inner hospitals and certain communities, people may be willing to pay for the services based on lower waiting periods and quicker response times.
- Where the public sector can provide a transparent tracking system for a network of hospitals, health centers and doctors, the private sector will have greater appetite for assuming demand risk.
- The program could be supported by a wider state health insurance scheme whereby some of the diagnostic procedures are covered under the health insurance scheme.

Value addition from ADB assistance

ADB can assist in the following ways:

(i) Transaction advisory assistance

- Develop a detailed financial analysis for a diagnostic center under a cluster approach. This would include analysis of typical capital and operating cost investment levels expected from the private sector, existing state budgets, potential for user charging, and consequently, affordability gap analysis.
- Understand the potential for use of central government schemes such as Viability Gap Funding or Annuity model to support the financial and economic viability of this scheme.
- Develop a detailed output specification including the specification of medical equipment, buildings, maintenance levels, and operating and/or performance levels.
- Assist in contracting process including bids, legal negotiations, and financial closure.
- Seek legal advice including on the potential for lease of equipment rather than an install-maintain-operate model with consequent implications on the financial assessment; contractual arrangements.
- Develop a broad user-charging mechanism that may be considered based on existing arrangements and market testing of the appetite for a user-charging system.

(ii) Funding assistance

Proposed processing stages and timelines

- States agree to undertake the pilot: Month 1
- Appointment of transaction advisory: Month 4
- PPP structuring: By Month 7
- Bidding process: Months 8–10
- Finalizing the PPP contract: Month 11

Concept Paper on Proposed Public–Private Partnership (PPP) Models for Health

Proposed Public–Private Partnership Model: III. The Cluster Approach for Vertical and Horizontal Integration of Community Health Care, Primary Health Care, and Sub Centre

Background

To accelerate progress toward maternal and child health, and communicable diseases control related to Millennium Development Goals (MDGs), various state governments are undertaking measures, among others, with the support of the National Rural Health Mission (NRHM). However, most of these measures are targeted to improve the public service delivery, which have had limited success in the past.

There is growing awareness and interest to improve publicly financed primary health care service delivery with the assistance of private sector participation or public–private partnership (PPP) models. Given the immense scale of challenge and resource constraints, it is also felt desirable to attract private financing for social service provision on a project finance basis or annuity model, or a combination of both, through an appropriately structured public–private partnership.

Through research (on global and domestic experiences) followed by consultations with stakeholders in five states, a number of PPP models have been proposed for the health care sector including this one. The aim is to structure a pilot project around this proposed PPP modality to demonstrate its effectiveness in meeting some of the existing challenges in India's health care.

Sector overview and key challenges

In many parts of India, achieving health MDGs continues to be a major challenge. The Government of India is committed to increase public health expenditures as a percentage of GDP. However, public health services have a number of challenges, some internal to the system and some external. Adult illiteracy, lack of women's empowerment, cultural practices and lack of community involvement are some of the barriers external to health systems. Factors internal to health systems like poor management, lack of human resources in remote areas, moonlighting of staff, corruption, poor quality of care, inadequate financing, among others, are responsible for poor public health services. The poor and unpredictable quality of public health services have led the public to seek care from private providers, including informal and unqualified health providers. This has led to underutilization of public health services, and reduced access to critical health services for the poor who cannot afford private health services. For many who live in the margins, a visit to a private clinic or private provider in case of catastrophic health care could lead to permanent regression into poverty due to health payments.¹²

A cluster-based approach through a PPP model has thus been identified to address this area.

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¹² Bonu, S., I. Bhushan, DH. Peters. 2007. Incidence, intensity and correlates of catastrophic out-of-pocket health payments in India. *ERD Working Paper No. 102*. Asian Development Bank, Manila. www.adb.org/Documents/ERD/Working_Papers/WP102.pdf

Proposed Public–Private Partnership Model: III. The Cluster Approach for Vertical and Horizontal Integration... (continued)

Brief project description

Objective of PPP Model: The aim is to (i) improve the basic health care services provided, and (ii) potentially also improve the hard infrastructure facilities.

Proposed Project Structure and Role of Private and Public Players:

- A cluster of health facilities covering a population of 80,000–120,000 (containing one community health center (CHC), around 3 to 5 primary health care centers per CHC and around 6 to 8 subcenters per primary health care center (PHC) can be considered as one package for PPP. In a dense urban area, a package covering a population of 200,000–300,000 could be considered instead.
- The PPP contract could be structured to cover services as well as infrastructure provision depending upon the context. Where infrastructure is in place, under the PPP contract, the private sector player's major responsibility will be to deliver a basic package of primary health care services including maternal and child health, communicable diseases control, and others. Where the project is undertaken as a greenfield project (for example in urban areas), the contract can consist of construction of hard infrastructure, procurement of equipment, and service provision.

*The model will have several issues and criteria that will **only** be determined when a specific project commences, and will be structured based on local conditions. See below.*

Technical issues

- Defining the package of services, which are diverse and difficult to cost—would be challenging.
- Defining output, outcome, and impact indicators; and assessing the baseline indicators and appropriate performance benchmarks are challenging.
- Who will bear the demand-side risk—is it better for PPP contractor to bear it as there is close nexus between service provision and demand generation?
- How to ensure that the services reach the poor—clear and monitorable targets for pro-poor targeting would be critical.
- How to ensure quality of service provision?
- Monitoring and evaluation of the contractor's performance—do we need a third-party independent evaluation firm?
- Who will procure medicines and equipment?
- Qualifications and training of the staff of the contractor.

Financing plan issues

- The financing plan is to subsidize the PHC services for people below the poverty line, while charging reasonable user fees for people who can afford. The revenue streams for the PPP are expected to be generated mainly from user fees, and some additional streams can be generated by renting out space for pharmaceutical shops and advertisements.
- The current rural PHC model hardly generates any revenue. The proposed PPP model can generate around 10%–15% of the total cost through these revenue streams. The remaining 85%–90% of the project cost may need to be met through payments by government for services rendered by the contractor and other capital expenditures incurred by the contractor.

Institutional structuring issues

- Who will do the contracting: central or decentralized procurement?
- What is the policy on existing government staff?
- How is the contractor's outputs monitored and evaluated?

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<p>Potential private sector players expected to respond</p> <ul style="list-style-type: none"> • Private sector players with local presence will have competitive advantage. Yet, a number of private players may express interest including: • Local, not-for-profit organizations. • Private maternity clinics or private hospitals to expand their reach. • Other non-health sector private players with core competencies in human resource management and customer care.
<p>Expected outcomes of the project</p> <ul style="list-style-type: none"> • <i>Increased efficiencies.</i> With the help of properly structured performance-based management contract systems, it is anticipated that greater efficiencies are gained. • <i>Better targeting and inclusiveness.</i> By structuring demand risk to the provider with specific performance targets to provide services to the poor and women, it is anticipated that better targeting can be achieved.
<p>Proposed PPP modalities to be considered and key structural issues</p> <ul style="list-style-type: none"> • The PPP modality can be (i) management contract; or (ii) BOOT through a performance-based deferred payment system (annuity model).
<p>Value addition from ADB assistance</p> <ul style="list-style-type: none"> • Bring global and regional experiences. • Provide support for transaction advisory. • Provide financing support for both public sector and private sector participants.
<p>Proposed processing stages and timelines</p> <ul style="list-style-type: none"> • States agree to undertake the pilot: Month 1 • Appointment of transaction advisory: Month 4 • PPP structuring: By Month 7 • Bidding process: Months 8–10 • Finalizing the PPP contract: Month 11

Concept Paper on Proposed Public–Private Partnership (PPP) Models for Education

Proposed Public–Private Partnership Model: I. Rural Residential Schools (RRS)

Background

Education spending in India is estimated at about 4.1% of GDP. While there has been considerable progress in enhancing access and building the school network over the recent past, significant gaps continue to hinder quality education across the country. Gaps between boys and girls, rich and poor, and rural and urban areas remain. With constraints on public expenditures, innovative public–private partnerships (PPPs) offer a solution to address the financing gap in education and to improve efficiency and quality of education. While involvement of the private sector in higher and technical education has been more predominant, synergies between public and private initiatives in basic education can also be identified. PPPs provide a viable solution in two ways: (i) for a given budget, introduction of certain private sector practices can provide better value for money through efficiency enhancement in service delivery; and (ii) the identification of untapped income streams of interest to the private sector free up public resources, which can be diverted to other areas of education provision.

Sector overview and key challenges

India's education sector has made significant progress in terms of increasing coverage, infrastructure developments in urban areas, provision of midday meals and other ancillary services to improve the retention ratios, and others.

Key challenges remaining for the education sector were identified during consultations with five states and a stakeholder workshop. The main challenges include (i) gaps in terms of infrastructure (e.g., buildings) quality and capacities, sanitary equipment, electricity, drinking water and education equipment, and information and communication technology (ICT) facilities; (ii) teacher absenteeism and low teacher morale; and (iii) lack of leadership and poor management quality at school level. Also, educational opportunities remain out of grasp for large numbers of rural poor. Discrepancies in access to and quality of education between rural and urban areas remain; illiteracy is higher in rural areas, rural communities are more likely to have problems with non-attendance, dropout rates, and gender inequality; access to education remains a challenge with students in rural areas sometimes having to travel long distances to the local school.

Within this context, the aim of this proposed pilot PPP scheme—Rural Residential Schools (RRS)—is to provide a solution toward enhancing education provision to achieve greater enrollment in rural areas.

Brief project description

Objective: To enhance equitable access to quality primary and secondary education for rural and remote areas. The RRS model is aimed at providing both (i) new or rehabilitated infrastructure (buildings, and others), and (ii) efficient education delivery.

Proposed Project Structure: A partnership between private and public sectors with the following proposed roles:

(i) Private Sector Role

The private sector will be invited to develop, build, and manage residential school facilities including educational services and residential and/or hostel facilities. The package includes:

- Building and maintaining school buildings along with residential complexes for students, teachers, and supporting staff.
- Education delivery, including supply of teachers, support staff, and in-service training.
- Supply of consumables for school, i.e., textbooks, stationery, notebooks, and chalk.
- Residential services including catering, laundry, social activities, security, and lodging.
- Sports facilities such as playground and recreational areas.

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(ii) Public Sector Role

The state government will provide the following for the project:

- Land (identified, acquired, and transferred).
- Provide a guarantee on number of students (up to 50%–70% of the school capacity) for enrolment in the school (capacity will remain allocated for government)—the student fees for this allocated government capacity will be set by state government per existing rules.
- Provide a financial payment for the state-allocated capacity of enrolment in the school (either per pupil basis or fixed lump sum).

Monitoring and/or Compliance:

During the initial structuring, parameters will be set in terms of what needs to be achieved (e.g., infrastructure quality and capacity, educational standards, and others). The state government will be responsible for monitoring compliance with these agreed upon standards, post implementation.

Successful Experience:

An initiative of this type has been successfully implemented by the Government of Andhra Pradesh.

The model will have several issues and criteria that will only be determined when a specific project commences, and will be structured based on local conditions. See below.

Technical issues

Technical issues in assessing this model include (i) determining the optimal size of the school (possibly ranging from 700–1,200 pupils), (ii) the availability of land for development, (iii) the proportion of government-sponsored students versus fee-paying students, (iv) the development of a mechanism to determine eligibility for the government-paid slots, (v) fees to be paid by the government to the private sector operator of the schools and the fee to be charged to paying students, and (vi) an assessment of the demand for residential education for a fee.

The project viability will depend on a sensitivity analysis on (i) the mix of state-allocated and fee-paying positions in the school, (ii) the project term (ranging from 15–20 years), and (iii) the annual payments the state will make to the school.

Financing plan issues

As envisaged, the private partner will receive his income and/or revenue streams from two potential sources:

- The government will cover part of the cost through the payment of fees in return for an entitlement to a certain percentage of enrolment (50%–70%).
- Private students, who have been allocated the remaining capacity positions through direct fees to the private partner.

The government may choose to structure its payment to the private sector in different ways, i.e., an annual charge per pupil or a fixed annual sum for the provision of the residential facilities or a combination of a fixed base with a variable charge based on pupil. In the last instance, the fixed charge would cover the fixed cost incurred by the private sector and variable charge based on the state-allocated pupil places.

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Proposed Public–Private Partnership Model: I. Rural Residential Schools (RRS) (*continued*)

<p>Institutional structuring issues</p> <p>Institutional issues that will require structuring include:</p> <ul style="list-style-type: none"> • Lease regulation in relation to school buildings. • Developing a state-level PPP framework for procurement of similar schools.
<p>Potential private sector players expected to respond</p> <p>Given the mix of activities involved in this PPP model, the typical consortium would be composed of a building contractor company and an education service provider. Specialized private companies focusing on cleaning, catering, and others may also be included.</p>
<p>Expected outcomes of the project</p> <ul style="list-style-type: none"> • Better quality teaching and learning environment will result in an improved teaching and learning environment. • Enhanced access to education in rural areas.
<p>Proposed PPP modalities to be considered and key structural issues</p> <p>PPP modality would be build-own-operate-transfer (BOOT), 15–20 years (depending on financial viability of the scheme).</p>
<p>Value addition from ADB assistance</p> <p>ADB can assist in two ways:</p> <p>(i) Transaction advisory assistance</p> <ul style="list-style-type: none"> • Develop a detailed financial analysis. This would involve analysis of typical capital and operating cost investment levels of private sector, existing state budgets, potential for user charging and consequently, affordability gap analysis. • Understand the potential for use of central government schemes such as Viability Gap Funding or Annuity model to support the financial and economic viability of this scheme. • Develop a detailed output specification including the specification of buildings, educational equipment, education standards, maintenance levels and operating and/or performance levels. • Assist in contracting process including bids, legal negotiations, and financial closure. <p>(ii) Funding assistance</p>
<p>Proposed processing stages and timelines</p> <ul style="list-style-type: none"> • States agree to undertake the pilot: Month 1 • Appointment of transaction advisory: Month 4 • PPP structuring: By Month 7 • Bidding process: Months 8–10 • Finalizing the PPP contract: Month 11

Concept Paper on Proposed Public–Private Partnership (PPP) Models for Education

Proposed Public–Private Partnership Model: II. Teacher Training Through Management Contract

Background

Education spending in India is estimated at about 4.1% of gross domestic product. While there has been considerable progress in improving access to education in recent years, quality and efficiency of education across the country remains poor. With constraints on public expenditures, innovative public–private partnerships (PPPs) offer a solution to address the financing gap in education and to improve efficiency and quality of education. While involvement of the private sector in higher and technical education has been more predominant, synergies between public and private initiatives in basic education can also be identified. PPPs may provide a viable solution in two ways: (i) for a given budget, introduction of certain private sector practices can provide better value for money through efficiency gain in service delivery; and (ii) the identification of untapped income streams for the private sector to free up public resources, which can be diverted to other areas of education provision.

Sector overview and key challenges

India's education sector has made significant progress in terms of increasing coverage, infrastructure developments in urban areas, provision of midday meals and other ancillary services to improve the retention ratios, and others.

Key challenges remaining for the education sector were identified during consultations with five states and a stakeholder workshop. The main challenges include (i) gaps in terms of infrastructure (e.g., buildings) quality and capacities, sanitary equipment, electricity, drinking water and education equipment, and information and communication technology (ICT) facilities; (ii) teacher absenteeism and low teacher morale; and (iii) lack of leadership and poor management quality at school level.

One of the key issues in ensuring quality and effective education is *competent and motivated* teachers. With a large share of the education budget, i.e., about 80%–95%, being spent on teachers' salaries, this is the resource with the greatest cost and effectiveness impact. However many states express deep concern on the effectiveness of teachers' instructional practices with low quality of teaching and learning outcomes noted. In this, the substandard quality of education is seen as particularly affecting the poor. Concerns are thus noted with regards to use of high quality teaching, which can be deployed equitably and efficiently. Teacher morale is thus often low with high absenteeism, up to 30% in some states.

Factors highlighted as being reasons for the poor quality of teacher *motivation and competence* include (i) lack of training provided to teachers in innovative pedagogical methods, (ii) lack of appropriate professional teaching experience, (iii) lack of subject matter competency, and (iii) poor compensation. In some instances, despite adequate teacher training and competence, a poor school environment with a lack of professional career and/or development opportunities, a lack of proper pre-service training and adverse attitudes and motivation may also affect teachers' provision of services.

While teacher quality will depend on many factors including recruitment and employment policies, national quality standards, strategies for teacher training and development, teacher performance monitoring with incentive schemes, procedures for deployment of teachers to schools, and others, the focus of this PPP model is to improve the quality of teacher training.

The aim of this proposed pilot PPP scheme—Teacher Training Through Management Contract is thus to utilize the private sector to enhance the quality of teacher training being provided. While only a part of the complex value chain in the teacher development and effectiveness process, the private sector is seen as potentially delivering, more effectively, a training package of a minimum assured quality and/or competence level for teachers.

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Brief project description

Objective: To improve quality of teacher training and thus provide competent and motivated teachers.

Proposed Project Structure: A partnership between private and public sectors, whereby the private sector will take responsibility for providing teacher training and mentoring services to teachers. The pilot project will identify primary and secondary schools to be grouped into clusters (i.e., grouping of geographically close schools) for which the private sector will provide teacher training and mentoring services.

(i) Private Sector Role

Provision of the following services for a cluster of schools:

- Training of teachers in (i) pedagogical services (strategies for effective teaching) areas such as pre-service, in-service teacher training, inspection and school improvement; and (ii) areas such as education delivery, classroom presentation, curriculum support, and student management. This can be classroom-based training outside school hours or provided alongside with classroom curriculum.
- Mentoring services for identified set of teachers to assist in service delivery; this could include one-on-one training, delivery methodology, and teaching and/or assessment techniques.
- Putting in place performance assessment frameworks for teachers.

(ii) Public Sector Role

Government will undertake the following:

- Overall policy development for teachers, including linking teachers' performance to incentives, selection of teachers and duration of service, and formulating procedures for deployment of teachers to schools and within schools.
- Payments to teachers and the basic responsibility for education provision remains with the public sector.
- Payments to private sector for the provision of teacher training services.

*The model will have several issues and criteria that will **only** be determined when a specific project commences, and will be structured based on local conditions. See below.*

Technical issues

Technical issues that will need to be decided during pilot project development and structuring include:

- Identifying the appropriate clustering criteria that groups together schools such that cost effectiveness, volume of teachers, economies of scale are justified for private sector participation.
- Identification of schools where the policies will be implemented (e.g., subject-wise cluster across primary and/or secondary schools to allow for continuity in learning styles across different grades).
- Identification of selected training areas to focus on which could vary between schools and/or clusters, (e.g., subject specific, classroom delivery, student management techniques, ICT, and presentation techniques).
- Development of performance standards that need to be met (i.e., teacher quality standards).
- Sustaining the training program post completion of the initial contract with the private sector.
- Benchmarking current expenditure levels under government provision of training to the PPP model.
- Period for the pilot phase.

Larger issues such as developing national minimum level teacher competencies and related policy development, development and implementation of career path for teachers, using merit-based recruitment, performance-based incentives, and others are possibly issues outside the scope of this proposed pilot project itself, though some elements may be considered in designing the PPP model.

While issues above will need a careful review for fair balancing of risks between public and private sectors, interactions with teacher unions will also be needed to ensure their full participation and for addressing any likely concerns.

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Financing plan issues

Payment for private sector services will need to be structured under the pilot project and will thus involve consideration of issues such as:

- Payment structure and financing of the private sector services: An option might be to provide milestone-based payments under the contract on delivery of private sector training program; if the contract covers provision of teachers on an ad hoc basis, government could structure hourly payments rates; consideration of lump sum contracts with phased payments.
- Linking of performance parameters to payments to private sector.
- Developing possibilities for linking efficiency gains from more effective use of teachers and resultant improvement of students’ learning outcomes into financial gains that would provide a long-term sustainable model.
- Cost and scale efficiency considerations, such as pooling of budgets across schools, and pooling of teachers for combined training programs.

Institutional structuring issues

Addressing of several issues including:

- Responsible institution for monitoring the service delivery levels.
- What are the teacher recruitment policy and teacher deployment procedures? Will reform policy be developed jointly by public and private sector stakeholders?
- Depending on the financial assessment of the project after the pilot phase, the public sector could consider contractual arrangements with tenure of 5–10 years; if so the required institutional structures for managing the contracts.

Potential private sector players expected to respond

- Private sector teacher training institutions.
- Universities’ with Faculty of Education.
- Education research institutes.
- High-performing private sector schools.
- Other private sector players with core competencies in human resource management and development.

Expected outcomes of the project

- Competent and motivated teachers.
- Improved learning outcomes for students.

Proposed PPP modalities to be considered and key structural issues

- Management contract of between 3 and 5 years.

Value addition from ADB assistance

ADB can assist in the following way:

Transaction advisory assistance

- Development of detailed financial analysis including likely financial implications and sustainable financial models.
- Development of contractual structures.
- Development of performance monitoring parameters and output specifications.
- Building in potential utilization of central government schemes such as viability gap funding or annuity model to support the financial and economic viability of this scheme.
- Assisting in stakeholder management.
- Assisting in contracting process including bids, legal negotiations.

Proposed processing stages and timelines

- States agree to undertake the pilot: Month 1
- Appointment of transaction advisory: Month 4
- PPP structuring: By Month 7
- Bidding process: Months 8–10
- Finalizing the PPP contract: Month 11

Concept Paper on Proposed Public–Private Partnership (PPP) Models for Education

Proposed Public–Private Partnership Model: III. Urban–Rural Schools Clustering Approach for Upgrading of Physical Infrastructure

Background

Education spending in India is estimated at about 4.1% of GDP. While there has been considerable progress in enhancing access and in building the school network over the recent past, significant gaps continue to hinder quality education across the country. With constraints on public expenditures, innovative public–private partnerships (PPPs) offer a solution to address the financing gap in education and to improve efficiency and quality of education. While involvement of the private sector in higher and technical education has been more predominant, synergies between public and private initiatives in basic education can also be identified. PPPs provide a viable solution in two ways: (i) for a given budget, introduction of certain private sector practices can provide better value for money through efficiency enhancement in service delivery; and (ii) the identification of untapped income streams of interest to the private sector free up public resources, which can be diverted to other areas of education provision.

Sector overview and key challenges

India’s education sector has made significant progress in terms of increasing coverage, infrastructure developments in urban areas, provision of midday meals and other ancillary services to improve the retention ratios, and others.

Key challenges remaining for the education sector were identified during consultations with five states and a stakeholder workshop. The main challenges include (i) gaps in terms of infrastructure (e.g., buildings) quality and capacities, sanitary equipment, electricity, drinking water and education equipment, and information and communication technology (ICT) facilities; (ii) teacher absenteeism and low teacher morale; and (iii) lack of leadership and poor management quality at school level. In terms of physical infrastructure, the necessity for (and current lack of) blackboards, electricity, and playgrounds are critical for supporting quality education, while the availability of toilets is critical for the retention of girls in school beyond puberty age.

Within this context, the aim of this proposed pilot PPP scheme—the Cluster Approach is to provide a solution toward enhancing physical infrastructure for schools.

Brief project description

Objective: To enhance physical infrastructure of schools such that they are more effective institutions for imparting education.

Proposed Project Structure: The private sector will be given the responsibility for upgrading and maintaining the physical school infrastructure in the rural and urban schools with the public sector continuing with the basic provision of education services in the facilities.

(i) Private Sector Role

Through a competitive and transparent process, the private sector will be invited to (i) rehabilitate physical assets, i.e., upgrade and manage physical facilities; (ii) build new assets, i.e., develop and maintain recreational areas and sports facilities such as playgrounds; and (iii) potentially offer specific services such as catering and security. The private sector will be required to make the buildings available for schooling to an agreed upon standard during school hours. It will also be entitled to use the building facilities for generating third-party revenues after school hours. After-school activities could include professional training courses, after school clubs, sports training, vocational training, adult education, language courses, and others. In areas where there is limited demand for after-school educational activities, widening the scope of activities developed by the private sector could be considered. In communities with space constraints or limited alternative infrastructure, schools can provide a venue for large meetings and gatherings, such as seminars, conferences, or even weddings.

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(ii) Public Sector Role

Will continue to be in the provision of the actual education to the students.

Monitoring and/or Compliance: Public sector will also be responsible for monitoring the performance standards of the infrastructure as agreed upon with the private sector.

Note: The scope and demand for after-school activities in school buildings will inevitably be larger in space-constraint urban areas. Hence, the model may be particularly successful in urban areas. To prevent rural areas from being left out and to ensure inclusiveness to reduce the urban–rural divide, this model proposes to cluster rural and urban schools in packages that are attractive to the private sector. The private sector would be responsible for a cluster of urban and rural schools, which would all be required to be upgraded and maintained to the same standards.

*The model will have several issues and criteria that will **only** be determined when a specific project commences, and will be structured based on local conditions. See below.*

Technical issues

The private partner will provide the agreed services that are currently provided by public authorities during the period of the contract. The operator will be paid for the work over the course of the contract on a “no service–no fee” performance basis. Technical issues that need to be determined include the standards to which the facilities need to be upgraded and maintained, and the amount of deductions and/or penalties to be charged in case the facilities are not available to the public partner at the agreed standards. An agreement also needs to be reached on the specific activities the private partner is allowed to develop after school hours. The optimal size and mix of urban and/or rural schools in each cluster will also need to be identified.

Financing plan issues

The annual payment to private sector can be structured as annuity payments once the school buildings are ready for use, subject to performance and availability deductions.

Key features of the financing plan may include:

- Commencement of payment only on completion of the construction phase and commissioning of the building and equipment.
- Inclusion of penalties (in case of performance shortfalls) in the payment mechanism.
- Third-party revenue may be generated. The private sector may avail of the building facilities for generating third-party revenues after school hours.

Institutional structuring issues

There is a need to develop specified standards in relation to physical infrastructure for schools and to develop a building program targeted at bringing all schools to a well-defined quality standard of physical infrastructure.

Potential private sector players expected to respond

Given the mix of activities involved in this PPP model, the typical consortium would include (i) a building contractor company, (ii) education service providers to provide after-school education services, and (iii) specialized private companies focusing on cleaning, catering, and others. This list can be modified based on inclusion of different kinds of activities.

Expected outcomes of the project

- Better educational outcomes by improved teaching and learning environment.
- Improved access. Higher motivation levels for teachers and children—both teachers and children will be more attracted to go to school.

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Proposed Public–Private Partnership Model: III. Urban–Rural Schools Clustering Approach... (continued)

Proposed PPP modalities to be considered and key structural issues

The Private Finance Initiative (PFI) and United Kingdom’s Building Schools for the Future (BSF) Program models, which focus on building infrastructure programs for renewal of school building and estate management, can be considered. School building programs need to be supported by a building maintenance and management program to maintain performance standards.

Value addition from ADB assistance

ADB can assist in the following ways:

(i) Transaction advisory assistance

- Develop a detailed financial analysis. This would involve analysis of typical capital and operating cost investment levels of private sector, existing state budgets, potential for user charging and consequently, affordability gap analysis.
- Understand the potential for use of central government schemes such as viability gap funding or annuity model to support the financial and economic viability of this scheme.
- Develop a detailed output specification including the specification of buildings, equipment, maintenance levels and operating and/or performance levels.
- Assist in contracting process including bids, legal negotiations, and financial closure.

(ii) Funding assistance

Proposed processing stages and timelines

- States agree to undertake the pilot: Month 1
- Appointment of transaction advisory: Month 4
- PPP structuring: By Month 7
- Bidding process: Months 8–10
- Finalizing the PPP contract: Month 11

APPENDIX 2

Consultation Agendas and Background Note on the Goa Workshop

Focus Group Consultation Meeting Review of ADB–KPMG Draft Report on Public–Private Partnerships (PPP) in Education and Health Taj Residency Ummed, Ahmedabad, Saturday, 23 February 2008

AGENDA

Time	Description
8:30 to 9:00 AM	<ul style="list-style-type: none"> Registration
9:00 to 9:20 AM	Keynote address by Mr. Arvind Mayaram , <i>Joint Secretary, Department of Economic Affairs, Ministry of Finance, Government of India</i>
9:20 to 9:30 AM	Introduction to the draft Report: Mr. Ashok Sharma , <i>Director, SAFM, Asian Development Bank</i>
9:30 to 10:15 AM	Presentation of the draft report (Part I): ADB and KPMG Representatives <ul style="list-style-type: none"> Overview and Context of Report Developing PPP Frameworks for Education and Health Part I Presentation: Education Sector (United Kingdom Policy, Key Findings, Proposed PPP Models)
10:15 to 10:30 AM	<ul style="list-style-type: none"> <i>Interactive Session: Feedback/Discussion on PPP in Education</i>
10:30 to 10:45 AM	<ul style="list-style-type: none"> Tea break
10:45 to 11:15 AM	Presentation of the draft Report (Part II): KPMG Representatives <ul style="list-style-type: none"> Part II Presentation: Health Sector (United Kingdom Policy, Key Findings, Proposed PPP Models)
11:15 to 11:30 AM	<ul style="list-style-type: none"> <i>Interactive Session: Feedback/Discussion on PPP in Health</i>
11:30 to 1:00 PM	<ul style="list-style-type: none"> Breakout session (2–3 groups) Introduction to breakout session Group work
1:00 to 2:30 PM	<ul style="list-style-type: none"> Lunch
2:30 to 4:00 PM	<ul style="list-style-type: none"> <i>Interactive Session: Presentation by the groups followed by discussion</i>
4:00 to 4:15 PM	Key Takeaways and Next Steps: Ms. Ameeta Chatterjee, KPMG and Mr. Ashok Sharma, Director, SAFM, Asian Development Bank
4:15 to 4:30 PM	Concluding remarks by Mr. Arvind Mayaram , <i>Joint Secretary, Department of Economic Affairs, Ministry of Finance, Government of India</i>

**Public–Private Partnerships in Health and Education:
Focus Group Meeting for Identification of Pilot Projects
in Selected States**

Marriott Goa, 24 April (Thursday) 2008

AGENDA

Time	Description
4:00 to 4:30 PM	Arrival at Venue —Tea will be served
4.30 to 4:45 PM	Welcome and Overview by Mr. Arvind Mayaram , <i>Joint Secretary, Department of Economic Affairs, Ministry of Finance, Government of India</i>
4:45 to 6:45 PM	<p>Presentations by Five States (20 minutes each) (Tea and snacks will be served)</p> <ul style="list-style-type: none"> • Uttarakhand • Rajasthan • Orissa • Tamil Nadu • Andhra Pradesh <p>Discussions and Feedback (20 minutes)</p>
6:45 to 7:00 PM	Concluding Remarks by Mr. Arvind Mayaram , <i>Joint Secretary, Department of Economic Affairs</i>

**Public–Private Partnerships in Health and Education:
ADB–KPMG Draft Final Report**

**Consultation Meeting
Marriott Goa, 25 April (Friday) 2008**

AGENDA

Time	Description
8:30 to 9:00 AM	Registration
9:00 to 9:05 AM	Welcome address by Mr. Tadashi Kondo , <i>Country Director, ADB India Resident Mission</i>
9:05 to 9:20 AM	Keynote address by Mr. Arvind Mayaram , <i>Joint Secretary, Department of Economic Affairs, Ministry of Finance, Government of India</i>
9:20 to 10:50 AM	<p>Session I: The ADB-KPMG Draft Final Report <i>Session Chair: Mr. Arvind Mayaram, Joint Secretary, Department of Economic Affairs and Mr. Frederick Roche, Director, ADB</i></p> <p>a) Presentation of the ADB-KPMG Draft Final Report</p> <ul style="list-style-type: none"> • <i>Background</i> by Ameeta Chatterjee, KPMG • <i>Framework</i> by Sekhar Bonu, ADB • <i>Health section presentation</i> by Liam Duffy, KPMG • <i>Education section presentation</i> by Bob Griggs, KPMG <p>b) Discussions and Feedback</p>

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Time	Description
10:50 to 11:00 AM	<i>Tea break</i>
11:00 to 01:00 PM	<p>Session II: Concepts and Pilots <i>Session Chair: Mr. Arvind Mayaram, Joint Secretary, DEA</i></p> <p>a) Introduction to Session II: Mr. Anouj Mehta, ADB</p> <p>b) Presentation of 6 Proposed Models:</p> <ul style="list-style-type: none"> • <i>Rural Residential Schools—Alain Borghijs (ADB)</i> • <i>Urban Rural Clusters—Bob Griggs (KPMG)</i> • <i>Teacher Training—Kowsar Chowdhury (ADB)</i> • <i>Diagnostic Centres—Liam Duffy (KPMG)</i> • <i>Health Clusters—Sekhar Bonu (ADB)</i> • <i>Hospital PFI/Medical Colleges PFI—Ameeta Chatterjee (KPMG)</i> <p>c) Discussions and Feedback</p>
1:00 to 2:30 PM	<i>Lunch</i>
2:30 to 3:30 PM	<p>Way Forward: Five States’ Presentations</p> <ul style="list-style-type: none"> • Uttarakhand • Rajasthan • Tamil Nadu • Andhra Pradesh • Orissa
3:30 to 4:30 PM	<p>Panel-Led Interactive Brainstorming Session: <i>“Challenges and Way Forward for Mainstreaming Sustainable and Scaleable PPP’s in Social Sectors”</i></p> <p>Panel Chair: <i>Mr. Arvind Mayaram, Joint Secretary, DEA</i></p> <p>Panel:</p> <ul style="list-style-type: none"> • Ministry of Health and Education Representatives • Mr. Frederick Roche, ADB • Mrs. Ameeta Chatterjee, KPMG
4:30 to 5:00 PM	<p>Summary of the proceedings by Mr. Frederick Roche, <i>Director, ADB</i></p> <p>Concluding Remarks by Mr. Arvind Mayaram, <i>Joint Secretary, DEA</i></p>

Background Note
Workshop on Public–Private Partnerships in Health and Education
Marriott Goa (25 April 2008)

Introduction	<p>While many states in India have made remarkable progress towards achieving education and health-related Millennium Development Goals (MDGs), there are pockets and regions that have lagged behind. In addition, the current pace of progress is not likely to ensure achievement of education and health MDGs. On the one hand, there is need for more public investments in education and health sectors, and on the other hand, equally important, there is need to improve the effectiveness, efficiency, and inclusiveness of already committed public expenditures in education and health. The Government of India is committed to scaling-up investments in priority areas of education and health sectors. Flagship programs like Sarva Shiksha Abhiyan and National Rural Health Missions have increased the central government's investments by many folds in education and health.</p> <p>Given the scope and scale of investment needs in education and health sectors, and other priority commitments for the government in other sectors, there is clearly a need for additional resource mobilization through private sector investments. Likewise, serious sector constraints including governance, management, human resource constraints, and poor quality constrain both public education and health to produce optimal results, which could be addressed, among others, through properly structured public–private partnerships (PPPs). The Government of India has given high priority to encourage PPPs in education and health sectors to achieve the dual goals of improve public expenditures and scale-up investments by attracting private investments.</p> <p>The government has priority focus on school education with emphasis on elementary education and primary health care. In addition, the government is committed to increasing access to high quality school education and primary health care for the poor. With the support of interested state governments, the Government of India is keen to support pilot PPP projects in education and health that has emphasis on elementary education and primary health care with primary objective of increasing access to the poor.</p>
Five-State Consultations	<p>The Asian Development Bank (ADB) is providing technical assistance to the Government of India for mainstreaming PPPs in central line ministries and selected state governments. ADB hired KPMG, London as consultants to assist the government in holding consultations with key stakeholders in the selected five states to develop a framework for PPPs in education and health sector and to suggest a list of demonstration projects that would be considered for pilot initiative. The consultations with key stakeholders in Rajasthan, Uttarakhand, Orissa, Tamil Nadu, and Andhra Pradesh were held in January 2008. Based on the consultations held with the state governments, KPMG, London and ADB produced a draft report, which was further discussed in a one-day consultation workshop held in Ahmedabad in February 2008.</p>
Key Points from the Consultations	<ul style="list-style-type: none"> • Though a number of PPPs in education and health were reported, most of them were either driven by philanthropy or corporate social responsibility, which were acknowledged as models that cannot be scaled up or made sustainable across India. • A major misconception was that education and health projects largely targeted to increase access to poor could not be amenable to PPPs as they need significant subsidy from the government. The United Kingdom's private financing initiative is a clear example of PPP where almost all financing is borne ultimately by the public sector. However, the partnerships are driven through performance-based deferred payment contracts. The public financing can be reduced if innovative revenue streams can be identified and appropriately structured. The private sector has better abilities and incentives to identify new revenue streams that an appropriately structured PPP can facilitate in tapping.

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	<ul style="list-style-type: none"> A number of stakeholders felt that both education and health sectors are human resource intense and unions pose serious threats to PPPs. It is true that there are a number of sector constraints that need to be properly assessed and only those projects that are likely to be acceptable to all key stakeholders should be taken up on a pilot basis. In addition, any change in management involves significant effort for meeting of minds and consensus building for which there is a need for effective communication strategy. A framework for assisting in evolving a proposal for PPPs in education and health was proposed so that risks are comprehensively assessed and efficiently allocated between public and private parties.
<p>Shortlisted Demonstration Projects</p>	<p>Based on the consultations, the following shortlist of demonstration projects was identified for education and health sectors:</p> <p>Health Sector</p> <ul style="list-style-type: none"> Primary health care clusters (vertical and horizontal integration of CHC, PHCs, and Sub Centres) Diagnostic facilities Hospital private financing initiative Medical colleges linked to district hospitals <p>Education Sector</p> <ul style="list-style-type: none"> Clusters (primary, secondary, and tertiary) Rural residential schools Teachers training colleges
<p>Next Steps</p>	<ul style="list-style-type: none"> Concept notes on the seven pilot projects shortlisted are being sent to the five states for eliciting interest to pilot them in respective states. A one-day workshop is proposed to be held in the middle of April with the five states to identify states that are interested to implement one or more than one of the pilot projects. A one-day final workshop is proposed to be held at the end of April 2008 where a group of larger stakeholders would be invited from remaining 14 states. The objectives of this workshop are listed below.
<p>Objectives of the Final Workshop</p>	<ul style="list-style-type: none"> Present the final report containing the framework, pilot projects, and concept notes. Present case examples from the United Kingdom and other countries. Obtain feedback from the participating stakeholders on constraints and opportunities. Determine the support required by the states for structuring public–private partnerships in education and health. Identify states that are interested to take up pilot projects, and then identify the type of projects they are interested in. Explain the Government of India Schemes for facilitating the state governments to undertake PPPs in education and health.

APPENDIX 3 Key Contacts

Government of India	Asian Development Bank
<p>Govind Mohan Joint Secretary (Infrastructure), Department of Economic Affairs, Ministry of Finance</p> <p>Tel +91 11 23093881 Fax +91 11 23092024 govindmohan1@yahoo.com</p>	<p>Ashok Sharma Director, South Asia Financial Sector, Public Management and Trade Division, South Asia Department</p> <p>Tel +63 2 632 6755 asharma@adb.org</p>
<p>Aparna Bhatia Director (PPP Cell), Department of Economic Affairs, Ministry of Finance</p> <p>Tel +91 11 23094443 Fax +91 11 23092477 aparna.bhatia@nic.in</p>	<p>Anouj Mehta Senior Infrastructure Finance Specialist/ PPP Focal Point (India)</p> <p>Tel +91 11 24107200 Fax +91 11 26870955 anoujmehta@adb.org</p>
KPMG	
<p>Ameeta Chatterjee Director–Corporate Finance KPMG India Private Limited</p> <p>Tel +91 22 39835351 ameetachatterjee@kpmg.com</p>	

Improving Health and Education Service Delivery in India through Public–Private Partnerships

Health and education are defining sectors for equitable human development and sustainable and inclusive economic growth for India. Given the strong economic growth of the country in the past decade, increasing demand for public investment across all sectors has created investment gaps in these key sectors. In addition, challenges are also increasing in terms of service delivery standards, performance benchmarks, and incorporation of technology into the provision of health and education services to all, especially the poorest and those located far from the urban growth centers of the country.

Public–private partnerships or PPPs have shown their ability to meet some of these challenges both in India and overseas. The Asian Development Bank (ADB) has been assisting the Government of India since 2006 to develop PPPs across sectors in India, through a programmatic joint PPP Initiative, Mainstreaming PPPs in India.

Under the initiative, a special task team of the ADB, together with the Government of India’s Ministry of Finance and KPMG consultants undertook a rapid assessment study to develop possible PPP solutions for meeting the challenges of India’s health and education sectors. Assessments of local PPP projects in the sector, consultations with state government officials in India, and best practice examples from the United Kingdom and other countries, have led to the development of this report.

A number of suggested PPP models for possible pilot projects have been conceptualized in this report after further consultations with government and private sector professionals in India. A number of these models are already being tailored for structuring some initial projects under way in the country.

This report will therefore provide a quick guide to international and national PPP cases in the sectors as well as practical ideas and suggested models to interested project sponsors, especially within government bodies responsible for sector development. Development of possible PPP projects based on some of the models and ideas suggested herewith will hopefully spur investment and efficiency gains in health and education infrastructure and service delivery mechanisms of the country.

About the Asian Development Bank

ADB’s vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries substantially reduce poverty and improve the quality of life of their people. Despite the region’s many successes, it remains home to two-thirds of the world’s poor: 1.8 billion people who live on less than \$2 a day, with 903 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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