

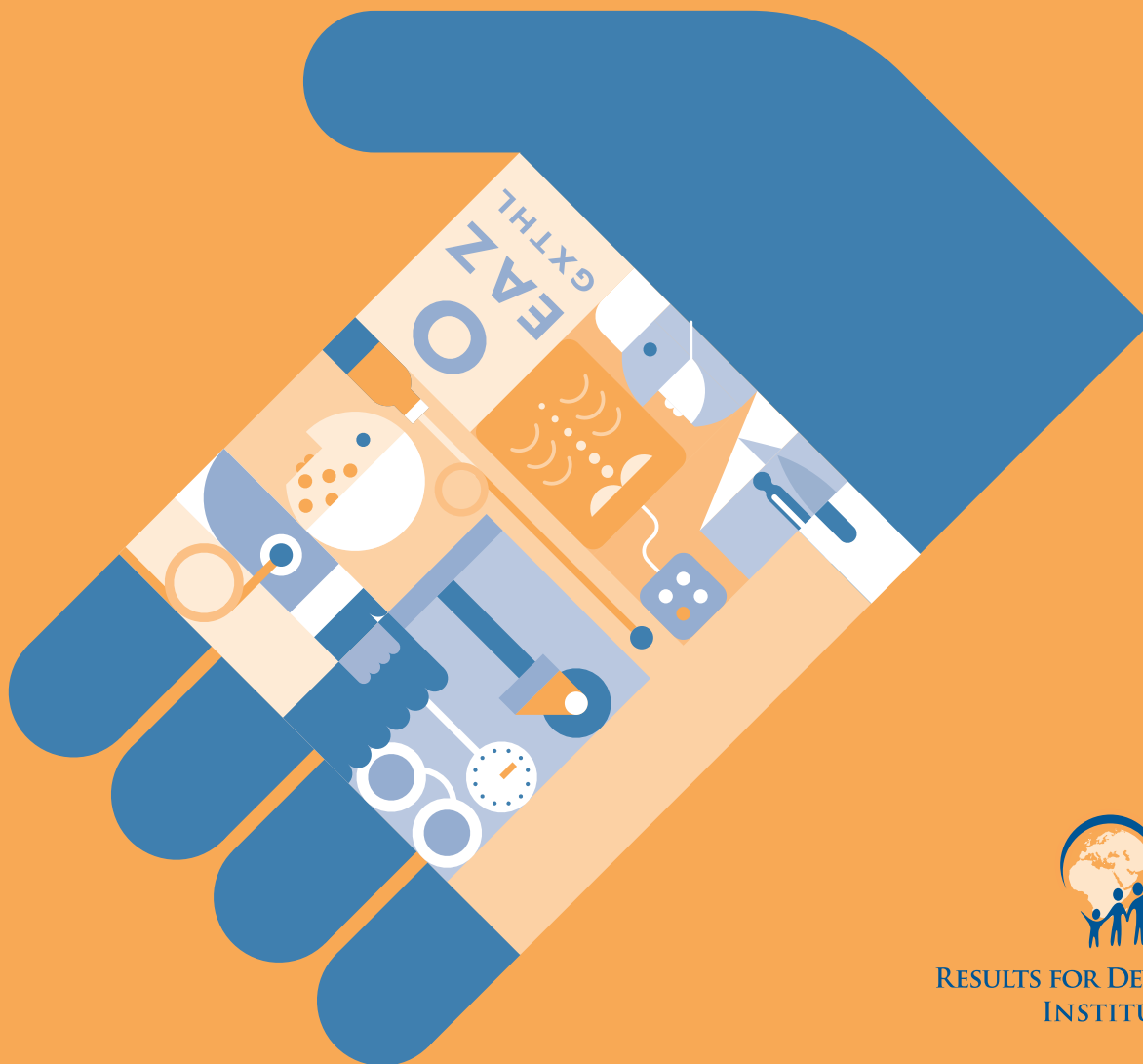
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Andhra Pradesh Health Sector Reform A Narrative Case Study

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Andhra Pradesh Health Sector Reforms A Narrative Case Study

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Abstract

It is evident that innovative steps have been taken to shape the future health status of the population in Andhra Pradesh. The State Government has the last couple of years taken several new approaches to improve the access to quality health care. International organizations like the World Bank, European Commission and the Department for International Development (DFID) have a history of supporting reform initiatives within the health sector in Andhra Pradesh. But the political support for healthcare reform was anchored when the Chief Minister took a strong interest in initiatives for high impact and encouraged innovative approaches in the health sector reform process, back in 2004. This change of mindset resulted in significant budget allocations, providing the grow ground for the new initiatives and to spur improved services in a short period of time for the many underserved people in the State. The engagement has resulted in contract arrangements where the government has harnessed the private sector for more effective healthcare delivery. Financial protection of the poor has been another motive of the reform, given that healthcare costs have been the main reason for indebtedness, and the outcome is one of the world's largest health insurance schemes. The Andhra Pradesh Health Sector Reform Programme (APHSRP), with managerial focus for improved efficiency in the work of the government, is yet another initiative which falls under the reform efforts. This report presents the main reform initiatives and describes underlying motives, challenges and opportunities associated with the reform process. There are gaps that need to be addressed and external support for e.g. impact assessments, are in some cases critical. The aim is to present the health sector reforms and encourage the discussion on how governments together with partners can harness innovation and improve the access to health care.

This report brings forward the health sector reforms in Andhra Pradesh to spur the discussion of health sector reforms as a phenomenon. Other governments can, and should, learn from the extensive and innovative approaches and change of mindset, while the government of Andhra Pradesh would benefit from improved access to information regarding related policy reforms and their affects in other countries.

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Executive Summary

In short: The Government of Andhra Pradesh has the last couple of years taken several innovative approaches to improve the access to health care in the State. As an active response to the health situation, the Congress Party, with Dr. Rajshekar Reddy as the Chief Minister, came to power in 2004 with health as one of the three main priorities in its manifesto. With the focus on the health system, the State Government put a concerted effort in making quality health care more accessible to the people. This change in mindset and action, supporting health sector reforms, has resulted in contract arrangements where the government has harnessed the private sector for more effective healthcare delivery. Another motive of the reform has been financial protection of the poor given that healthcare costs have been the main reason for indebtedness; the outcome is one of the world's largest health insurance schemes. Another painting example which falls under the government's reform efforts is the Andhra Pradesh Health Sector Reform Programme (APHSRP), an initiative with strong managerial focus for improved efficiency in the work of the government. This report presents the main reform initiatives and describes underlying motives, challenges and opportunities associated with the reform process.

The aim of this report is to present the health sector reforms and encourage the discussion on how governments together with partners can harness innovation and improve the access to health care.

Context of the health sector reforms: International organizations like the World Bank, European Commission and the Department for International Development (DFID) have a history of being involved with the health sector in Andhra Pradesh, initiated back in 1995. In short, the health sector reforms gained focus in the mid-eighties and took momentum in the early nineties, alongside economic reforms initiated by the Government of India. Governance, service delivery, health financing and human resource management have been the focus since then, yet only in recent years, since 2006, have the budget allocations increased to provide the grow ground for change.

The present inefficiencies and inequities in the public health system in India have pushed forward the need for creative thinking and innovative solutions to strengthen the same. Crippling health problems have provided apparent calls for change in the existing structure of health service provision and risk pooling, involving both public and private sector. On National Government level, there have been several efforts to reform the health system to improve the access to quality services for the poor. In this realm, the National Rural Health Mission (NRHM) was launched to carry out necessary architectural correction in the basic health care delivery system and has been an important initiative towards supporting health sector reforms, both at the National and State level.

Current initiatives: The reforms in the State of Andhra Pradesh have brought about innovative approaches including large scale private sector involvement, from which e.g. new technologies, use of IT, service delivery and financial mechanisms for health care, have evolved. The report presents the Rajiv Aarogyasri health insurance scheme for the poor

where the government covers the premium and it is cashless to the beneficiaries and two major contract arrangements where the government covers 95 percent of the operational costs: the Emergency Management and Research Institute (EMRI), and the Health Management and Research Institute (HMRI) with focus on primary and preventive health care. The organization and the activities of the Andhra Pradesh Health Sector Reform Programme (APHSRP) will also be highlighted.

Aarogyasri Community Health Insurance Scheme: is a social protection scheme based on the motivation to address the health care problems that cause indebtedness and often bring people in devastating distress. The scheme covers more than 50 million people and is one of the largest schemes in the world, catered to by more than 360 providers including many private hospitals. The recognition of how public hospitals do not have the capacity to handle all cases, as well as lack of specialists and equipment motivated the government to reach out to the private hospitals. The scheme is structured around a cashless system for the beneficiaries and the government covers the premium for the population below poverty line, providing health insurance for hospitalization up to approximately USD 4,500 in a year. An important aspect of the scheme is the health camps, screening 4,000 people per day, which are main source of mobilizing the beneficiaries and providing health advice, conducted by a large part of the networked hospitals. The health insurance scheme also covers immediate pre and post operative expenditure to minimize the financial expenses to the patient.

Emergency Management and Research Institute (EMRI): was funded by the Raju brothers, of Satyam Computers Services, with the vision of an emergency response service at global standards applying innovative technology to respond to 30 million emergencies and save one million lives per year. The three guiding principles are; involving people, applying knowledge and making things happen. The toll-free number 108 enables people to call from landlines and mobiles to access medical, police and fire department support. The ambulances are equipped to provide quality pre-hospital care. Doctors are available around-the-clock at the control center, to provide support both to the personnel in the ambulance and to the people at the site of the emergency. The delivery model builds on integrated processes housed under one roof. The model builds on a combination of existing systems and in-house developed technology. All information related to the emergency is kept in electronic patient records, created and maintained at the EMRI control center, compiled in a large database. The information gathered from the emergency call is shared with the hospital at the time of the patient's arrival and it further feeds into the research conducted to facilitate evidence-based and tailored interventions to improve the service delivery which e.g. has resulted in proactive placements of ambulances in high risk areas at high-risk times.

Health Management and Research Institute (HMRI): is the sister organization to Emergency Management and Research Institute (EMRI), both based in Hyderabad, Andhra Pradesh. This primary health care model consists of several services and

integrated solutions including; an around-the-clock calling center for medical advice, fixed-day rural outreach services through mobile health vans, telemedicine pilots, blood bank applications, an Innovation Lab where technologies for the health services are developed, and a disease surveillance program facilitating research as well as disease and disaster management. A core component of the model is the use of Information and Communication Technologies and the services are linked to an extensive database currently holding approximately six million electronic patient records. The model focuses on community healthcare and strengthening the links to public institutions and the public health delivery system, as well as empowering the community itself. It has enabled awareness creation for prevention, school screening programs and maternal health monitoring at a scale which a few years ago was implausible.

Andhra Pradesh Health Sector Reform Programme (APHSRP)

The reform process does not only include new contract arrangements for service delivery. The Andhra Pradesh Health Sector Reform Programme was launched to strengthen governance and management in the health sector, improving community participation and systems for accountability, and also strengthening the financial management. A new unit, the Strategic Planning and Innovation Unit (SPIU), was created to coordinate and ensure implementation of the reform work. The Department for International Development (DFID) of the United Kingdom has been involved with the Government of Andhra Pradesh for more than a decade and decided to support the health sector reforms in Andhra Pradesh. This led to technical assistance of SPIU for three years, ending in 2010. The objectives of the support to the unit were to develop the plans, strategies and action points. The unit can serve an important role for improved monitoring and support implementation of the reform initiatives but many of the functions are still under development and it is unclear how the unit will be affected when the technical support comes to an end.

Expected health outcomes: The expected impact on health indicators are formulated according to targets of the National Rural Health Mission for the State of Andhra Pradesh, e.g. reduced Infant Mortality Rate, reduced Maternal Mortality Rate, reduced Total Fertility Rate, and reduced incidence of Tuberculosis, Leprosy and Malaria. Decreased malnutrition levels, with special attention to child malnutrition, reduced financial burden for the poor in regards to health care and positive impact on the present levels of poverty, are all among the expected outcomes of the implemented programs. Some of the expectations on improved health status are presented below.

Ultimate health outcomes

- Decreased Infant Mortality Rate from 56 to 30
- Decreased Maternal Mortality Rate 195 to 100
- Improved Life Expectancy
- Decreased Fertility Rates from 2.0 to 1.5
- Tuberculosis cured rate: 85 percent
- Prevalence of Leprosy: 0.43/10,000

- Reduced Malaria Mortality by 60 percent, reduce filarial and micro filarial 80 percent

Enabling environment: The most important factor to the reform process in Andhra Pradesh has been the political support from the Chief Minister who took a strong interest in initiatives for high impact and encouraged innovative approaches in the health sector reform process. This resulted in significant budget allocations which was the grow ground for the new initiatives and to spur improved services in a short period of time for the many underserved people in the State. Support from the National Government was critical for some of the contract arrangements. It is also important to recognize the efforts to strengthened governance with focus on accountability, transparency and decentralization, as well as capacity building support by premier institutes and with funding from Department for International Development (DFID); all these factors supported the reform process. The overall approach has been multi-sectoral and aims to increase the involvement of the private sector and the community, resulting in linkages with other ongoing interventions as well as the inclusion of non-governmental organizations and private providers to meet the set targets.

Funding: The healthcare expenditure of the Government of Andhra Pradesh has been low and from the year 2000 until 2005 at approximately \$260 million or \$3.4 per capita. The Congress Party came into power in 2004 and the commitment to a health sector reforms became evident in 2006 when it was decided that the budget allocation was going to increase. The ambitious target was to more than double the public healthcare expenditure from \$4 per capita to \$9 per capita between 2006 and 2011. The budget for 2008-2009 gave almost \$8 per capita hence close to the target. The National Government through the NRHM has contributed with approximately 4.5 percent of the expenditure in the last years and DFID has contributed with 3.9 percent which has been important support but insignificant in comparison to the increased allocation of the State Government. The funding from DFID has not been as important as the technical support. The challenges faced by the Department of Health, Medicine and Family Welfare are not as much associated with access to funding for the health sector reforms as efficient utilization of the resources and monitoring.

Challenges and weaknesses: The political commitment is critical and it is a challenge to ensure that this commitment remains. Other challenges are associated with inefficient use of financial resources, inadequate level of attention and response to equity and gender issues, fiduciary risk and accountability issues, as well as inadequate operational capacity to implement the reforms, and negative attitude among some stakeholders toward reforms. Some of the remaining weaknesses in the reform process are related to:

- **Donor support coming to an end:** The uncertainty of continued support affects the initiated reform process on multiple levels; the functions of the Strategic Planning and Innovation Unit (SPIU) are still under development while the funding and technical support from DFID is coming to an end. It is unclear if the Government will have the capacity to institutionalize these functions, whether continued technical assistance is

needed or if the Government would benefit from an independent body to manage some of the functions.

- **Communication:** Internally; lack of complete understanding of the philosophy behind the health sector reforms. There are evident flaws in the internal communication when many of the key players in the health sector policy process states that they do not understand the whole wheel works of the structure or process, nor the entire philosophy behind the initiative, which can impede the implementation of reform initiatives. Externally; lack of trust in the reform process among the public rooted in a perceived lack of transparency and accountability.
- **Health Information Systems:** Insufficient training of health information management staff, gaps in the data management and analysis. Weak linkages between the information management and the operations management to create interventions based on findings from the available information, as well as insufficient validation of information from various initiatives. Overall, the emphasis on information collection and reporting often puts knowledge transfer and the communication of findings in the back seat.
- **Health Financing:** Gaps in the financial management and unsatisfactory financial training, as well as insufficient monitoring, lack of evaluations and cost-effectiveness analysis. Challenge to motivate allocations of resources, possibly due to a perceived lack of accountability and transparency.
- **Procurement:** No well-defined system for decentralization at the district level, unclear audit trail at central level, inadequate alignment with international best practices of documentation and delays in the creation of a procurement reform plan.
- **Human Resource Management:** Insufficient performance management which is related to lack of guidelines for incentive systems and promotions that are said not to be based on performance but seniority.
- **Leadership and Governance:** Deficient key functions related to planning, monitoring, evaluations, quality assurance and cost-effectiveness assessments, as well as a perceived lack of transparency in contract arrangements managed by the government. The Strategic Planning and Innovation Unit (SPIU), under the Andhra Pradesh Health Sector Reform Programme, was established to strengthen governance and address many of the gaps highlighted in this report. The functions of this unit are however still under development and the future of the unit is unclear and stressed in relation to the termination of its technical and financial support. Since the institutionalization of the SPIU is incomplete and DFID support coming to an end in a year, the future role of this unit and the continuance of its support to the reform process is uncertain.

Opportunities: Along with the remaining gaps come opportunities for further action and constructive support to strengthen the reforms and the evolving innovations. The reform process has just started and the implementation phase will be realized only over a long period of time. To get the reform process institutionalized and fully adopted, oversight, continuous support and funding are key components to sustain. Important issues to address are:

Donor support coming to an end

- The role and effectiveness of the Andhra Pradesh Health Sector Reform Programme (APHSRP), including the Strategic Planning and Innovation Unit (SPIU), should be reviewed. The assessment should address what functions the government preferably should manage, for what activities there is a need for continued technical assistance and what functions might be better managed by an independent entity to support the government.

Communication

- Ensure that a unit, such as the Strategic Planning and Innovation Unit (SPIU), manages internal communications including feedback on reform initiatives from cross-sectoral departments.
- Alter the external communication through involvement of an independent party to improve the monitoring and evaluation, which could build trust in the reforms, the components and activities.

Health Information Systems

- Strengthen the use of health information systems and the capacity building in relation to it, in addition to define functions and responsibilities among stakeholders.
- Support capacity building to strengthen the government's ability to validate the data gathered from various initiatives, to provide policy makers with accurate information.
- Encourage knowledge transfer and communication of findings to the same extent as data collection and management, to increase the number of evidence-based initiatives and activities.

Health Financing

- Develop standards for financial management of all societies and autonomous bodies involved, as well as provide training with focus on audits, budget execution, monitoring and reporting mechanisms.
- Gather key people within the government for coordinated capacity building for contract definition, negotiation, management and monitoring, to battle the perceived lack of accountability and transparency in the financial management.

Procurement

- Improve the management of procurement processes by developing procurement manuals, bidding documents and streamline the contract award procedures in accordance to international best practices.
- Standardize procurement procedures, establish a central regulatory authority and involve key stakeholders in the decision-making process.

Human Resource Management

- Implement a performance management system and improve incentive structures.
- Identify training needs and create a training policy to set the direction for effective training efforts within the health department.

Leadership and Governance

- Provide capacity building for the management and creation of contracts. Assign an independent entity to either work together with the Strategic Planning and Innovation Unit's (SPIU) to monitor contracts and facilitate the public private partnerships, or assign a third party to take on the task of external monitoring of contracts.

- Evaluate the Strategic Planning and Innovation Unit's (SPIU) existing needs and assess what kind of support that should be provided when going forward.
- Assign an independent entity to continuously conduct impact assessments, as well as monitor and evaluate the reform process and provide policy support to the government and to ensure effective allocation of resources. This could potentially improve the overall transparency of the reform process and help the government to build trust in the communities.

Concluding comments: It is evident that innovative steps have been taken to shape the future health status of the population in Andhra Pradesh. The recent health care initiatives reflect positive changes in the mindset of both government officials and private health care providers, yet the reforms need sustained commitment to succeed and reach its targets. In conclusion, the health sector reform process needs time. It needs time to get all stakeholders wholeheartedly on board and to institutionalize the routines, attitudes and activities, as well as to gain the trust among people in the community.

External involvement in the process can be a critical factor for improved accountability and transparency, as well as for cross-learning within the Government of Andhra Pradesh but also internationally. Technical assistance could play an important role to support the enabling environment and the initiated innovative approaches, hence be essential in the transformation of the initiatives bringing them from pilots to well-anchored programs. Independent monitoring might be the determining factors to strengthen the awareness and trust in this health sector reform process. Though there are numerous impressive and innovative components and initiatives of this reform process, there are some important remaining gaps, whereas impact assessments and evaluations are essential to create a better picture of what works and what does not.

This report brings forward the health sector reforms in Andhra Pradesh to spur the discussion of health sector reforms as a phenomenon. Other governments can, and should, learn from the extensive and innovative approaches and change of mindset, while the government of Andhra Pradesh would benefit from improved access to information regarding related policy reforms and their affects in other countries.

Chapter 1: Introduction

Many experts, including researchers, policy makers and practitioners, say there is a lack of knowledge about innovations in public and private health financing and delivery. This report describes innovative health sector reforms and presents underlying motives, challenges and opportunities. The aim is to encourage a discussion on how governments with partners successfully can transform the existing health system and make it more effective, efficient, affordable and equitable.

Context of the study

The Government of Andhra Pradesh has initiated health sector reform initiatives. It was a strong political commitment by the Chief Minister that brought about a series of innovative approaches including health insurance, prevention and primary healthcare through private sector involvement with major contract arrangements.

The reforms also include improved management of the services provided by the public sector with a special focus on improved access to services for people living in the remotest areas. The government intends to improve community participation in decision-making, overall financial management and systems for accountability. The initiatives for improved management fall under the Andhra Pradesh Health Sector Reform Programme (APHSRP) which has been supported by Department for International Development of the United Kingdom.

Altogether, new approaches to service delivery and financial mechanisms have evolved, as well as reforms for improved capacity building and management, which can all serve as important inputs to discussions on the potential of health sector reforms and the role of the different actors involved.

Objectives of the study

The objective with this documentation of the health sector reforms in Andhra Pradesh is to bring light to the initiatives that have been encouraged by the State Government. Special attention has been paid to innovative contract arrangement for health care delivery and managerial aspects of the Andhra Pradesh Health Sector Reform Programme, to further inspire policy makers to take on new approaches, harness innovation and improve the access to health care. Furthermore, it has the aim to exchange best practices and lessons learned, as well as to present supporting policy agendas within the field of private and public sector health care.

The two objectives of the report are:

- To provide a narrative case study that can be used to describe the health sector reforms in Andhra Pradesh, India, and explain some of the motives behind it.

Opportunities, challenges, enabling factors, main drivers, key actors and underlying reasoning will be highlighted to provide the foundation for further discussion of the phenomenon of health sector reforms.

- To identify, investigate and present pilot innovative approaches to health care delivery and health financing initiatives initiated in the light of the reform process.

Methodology

The study includes review of existing documentation, material from interviews, as well as in-depth case studies of relevant institutions and organizations. The respondents are key stakeholders in the health sector reform process, both as individuals and as representatives from organizations involved in the reforms.

Structure of the Report

The report is structured around the following sections:

Executive Summary

Chapter 1: Introduction

Chapter 2: Context of Health Sector Reforms in India

Chapter 3: Structure of the Health Care Delivery System in Andhra Pradesh

Chapter 4: Context of Health Sector Reforms in Andhra Pradesh

Chapter 5: Ongoing Health Sector Reforms in Andhra Pradesh

Chapter 6: Enabling Factors and Barriers to the Reforms

Chapter 7: Gaps and Opportunities

Concluding Comments

Chapter 2: Context of Health Sector Reforms in India

The developing world is still struggling to overcome crippling health problems that have been largely contained in the developed world: from universal childhood immunization to oral rehydration therapy, from eradication of TB to spread of HIV, from maternal mortality rate to malnutrition. Many developing countries still have a long way to go before they reach the Millennium Development Goals (MDGs).

Many sector reports and health sector assessments done in the developing world have pointed out that the health systems in the developing world are not tuned to the needs of the majority of the public. The common view is that the systems are inequitable and inefficient. This happens even in developing countries with high donor support, leading to further speculation that infusion of more funds might not be an answer to the problem. The systemic changes that were undertaken to reforms the health systems in these developing countries in the nineties came to be known as health sector reforms (Berman & Bossert, 2000).

Defining Health Sector Reforms

Despite its popularity since early nineties, the term “health sector reform” is very hard to define because of the various ways in which it is conceived and implemented in various regions of the world. In this report, the definition used by the International Health Systems Group at Harvard School of Public Health is taken as the operational definition. They define health sector reforms as “sustained, purposeful and fundamental change” (Berman, 1995) in health systems. To elaborate further:

- **Sustained:** in the sense the effort is not temporary with just short term impacts as goals, but long term and long lasting.
- **Purposeful:** in the sense the effort emerges out of rational, evidence-based and planned process.
- **Fundamental:** in the sense that the effort addresses significant, systemic and strategic dimensions of health systems.

Others have defined the reforms in other ways, but the above definition has gained acceptance in the global health community in recent years and is accepted as a working definition in this report.

Health Sector Reforms in India

Health Sector Reforms in India started with the economic reforms of the early 1990s and were a response to the earlier models of health care that were conceived after the independence, yet which had failed to achieve equity in access and service provision. Until mid-eighties almost all health care was provided by the state. The fiscal crisis that marked the seventies and the eighties – the oil crisis, the devolution of dollar, the world recession, and the collapse of the Soviet Union, to name a few – led to liberalization of the Indian

economy in 1991. The rise of the neo-liberal paradigm was also felt in the health sector and led to its reformation under the shrinking role of the state in public welfare.

The main aim of the health sector reforms in India was to close the gap between service provision and the utilization of the services, in other words, to restructure the health system so that it would become equitable and improve the living standards of the people. This was reflected in the shift in policies promoted by the central government in its Eighth, Ninth, Tenth and Eleventh Five year plans.

Among major changes, in the Eighth Five Year Plan (1992-97) (Government of India, 1992) a new concept of user fee was introduced: people below the poverty line got free medical care while people above the poverty line had to pay a nominal fee for the services they availed. This applied to all the diagnostic and curative services. This gave push to the private sector involvement and led to rapid growth in the nineties of the private sector both in urban and rural areas (Government of India, 1992).

The Ninth Five Year Plan (1997-2002) focused on the involvement of voluntary, private organizations and self-help groups in the provision of health care, and encouraged inter-sectoral collaboration to provide health care to the public. In an attempt to decentralize, the plan also envisaged planning and monitoring role in health programs at the local level by the Panchayati Raj institutions¹, hoping it would lead to improved utilization of local and community resources. The role of the public sector, it was hoped, would turn managerial and the focus would shift to governance issues (Government of India, 1997).

Despite a decade of interventions under the neo-liberal paradigm, the expected goals were not reached. This led the Tenth Five Year Plan (2002-07) to focus on reforms that addressed the issues of equity and need, especially with focus on the poor. It kept the focus of previous five years plans that provided subsidized care to the poor and gave various payment options to those above the poverty line. Given the focus on secondary and tertiary care, and increased reach of the private sector, it was suggested that a universal coverage for the poor to meet the cost of hospitalization should be a priority and health insurance as a financing option for individuals, institutions and industries was pursued alongside provision of social insurance for families living in poverty (Government of India, 2002).

The Eleventh Five Year Plan (2007-2012) focuses on adopting a system-centric approach rather than a disease-centric approach to health. This is planned to be achieved by strengthening health system through upgrading infrastructure and by engaging in public private partnerships. It also supports converging of all programs, not allowing vertical programming below district level. Also, the plan tries to prevent indebtedness due to expenditure on health by creating mechanisms such as health insurance for the unorganized sector. The thrust is also on decentralizing governance by increasing the role of Panchayati Raj institutions and non-governmental organizations. There is a stated focus on human

¹ Panchayati Raj is a decentralized form of governance which has constitutional status and which enables each village and district self-governance, responsibility and participation (Wikipedia, 2009).

resources in the health department, supporting an effort to build its capacity. There is further a focus on mental health, oral health and care for the neglected populations such as elderly and disabled (Government of India, 2007).

The launch of the National Rural Health Mission (NRHM) in April, 2005 was a crucial step taken by the National Government towards supporting health sector reforms both at the national and the state level, bringing into focus the need for equity in health care.

National Rural Health Mission

The National Rural Health Mission (NRHM) “seeks to provide universal access to equitable, affordable and quality health care which is accountable and responsive to the needs of the people, reduction of child and maternal deaths as well as population stabilization, gender and demographic balance” (Ministry of Health and Family Welfare, 2005).

While the Mission sets the agenda for the entire country, it lays special focus on 18 states that have weak public health indicators and/or health infrastructure (Ministry of Health and Family Welfare, 2007). The states are: Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu & Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland, Orissa, Rajasthan, Sikkim, Tripura, Uttaranchal and Uttar Pradesh. Note that fact that Andhra Pradesh is not one of the special focus states that got additional funding to implement special programs under NRHM, although the state gets allocated proportion of funds from the NRHM that can be used to implement the following goals.

Goals of NRHM

- Reduction in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR)
- Universal access to public health services such as women’s health, child health, water, sanitation and hygiene, immunization and nutrition
- Prevention and control of communicable and non-communicable diseases, including locally endemic diseases
- Access to integrated comprehensive primary health care
- Population stabilization, gender and demographic balance
- Revitalize local health traditions and mainstream Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH)
- Promotion of healthy life styles

(Ministry of Health and Family Welfare, 2005)

Reform areas under NRHM

According to Ministry of Health and Family Welfare (2007), the changes that the NRHM envisages to see can be grouped under three areas of reforms:

- **Structural and Functional Reforms:** The focus is on inter-sectoral convergence, integration of existing services, strengthening of infrastructure, mainstreaming management initiatives, increased access to health services at household level, etc.

- **Finance related reforms:** Focus is on social protection mechanism, insurance coverage, better management of human resources, supply chain management, drug procurement policies, etc.
- **Governance related reforms:** Focus on involvement of Panchayati Raj institutions, decentralized management, monitoring and planning mechanisms, etc.

Importantly, the focus is also on extended participation of private sector in public health activities and service provision, contracting out of services, provision of reproductive and child health services, as well as diagnostic services. It emphasizes the need for standardization, dissemination of standard treatment protocols, accreditation of hospitals, agreements on costs of health services and improved regulation of the private sector (Ministry of Health and Family Welfare, 2007).

Implications for Andhra Pradesh

Under the framework of NRHM, the central government supports the health sector reform initiatives in Andhra Pradesh for the State reach the health MDGs and create an equitable health system by 2012. The State has to rationalize institutional arrangements within the overall NRHM framework and designated a minister as the Mission Director of the State Rural Health Mission. The NRHM Mission Director has to provide management support by hiring professionals on contractual basis for the respective State health departments. The NRHM also underlines the importance of improving management of health programs and provides support for establishment of a Program Management Unit at State and district levels. The NRHM framework specifies institutional mechanisms for oversight, program management and technical support at various levels. The Government of Andhra Pradesh is thus responsible for developing strategies and implementing programs recommended by the NRHM to reach the set targets.

Expected Outcomes for Andhra Pradesh under NRHM

These are the targets for Andhra Pradesh within the goals of the NRHM to be reached by year 2012:

- Reduce IMR (per 1000 live births) from 56 to 30
- Reduce MMR (per 1,00,000 live births) 195 to 100
- Reduce Total Fertility Rate (children per women) 2.0 to 1.5
- Achieve a cure rate (TB-DOTS) of – 85 percent by 2012
- Reduce prevalence rate of Leprosy to – 0.43 per 10,000 by 2012
- Increase Cataract operations to – 600,000 per annum by 2012
- Reduce Malaria Mortality Rate to – 60 percent by 2012
(No deaths reported in 2006-07)
- Reduce Filaria/Microfilaria rate to – 80 percent by 2012
(Ministry of Health and Family Welfare, 2005)

Table 1: Profile of Andhra Pradesh

Population 1	
Total Population (in millions)	76,210,007
Population Density (persons per sq. km)	275
Estimated Urban Population (percent)	27.3
Scheduled Caste population (percent)	16.2
Scheduled Tribes population (percent)	6.6
Vital Statistics	
Total Fertility Rate (per woman) ²	1.79
Sex Ratio (females per 1000 males) (2001) ¹	978
Birth Rate (per 1000 population) ³	19.0
Death Rate (per 1000 population) ³	7.0
Socio-Economic Profile	
Number of Districts	23
Literacy Rate (total) (percent) (2001) ¹	60.5
Female Literacy rate (percent) (2001) ¹	50.4
Health Status	
Infant Mortality Rate (per 1000 live births) ³	59
Deliveries assisted by a health professional (percent) ²	74.2
Health Infrastructure	
Number of Teaching Hospitals ⁴	32
Number of District Headquarter Hospital (DHH) ⁴	20
Number of Area Hospitals ⁴	55
Number of Community Health Centers (as on September 2005) ⁵	164
Number of Primary Health Centers (as on September 2005) ⁵	1,570
Number of sub centers (as on September 2005) ⁵	12,522

1) Census 2001, Registrar General of India; 2) National Family Health Survey -3 Fact Sheets 2005-06; 3) Sample Registration System 2004, Registrar General of India; 4) <http://www.aponline.gov.in>, site last accessed on March 15, 2009; 5) Ministry of Health and Family Welfare (2006), "Bulletin on Rural Health Statistics in India 2006".

(Reproduced from Ministry of Health and Family Welfare, 2007)

Chapter 3:

Structure of the Health Care Delivery System in Andhra Pradesh

Andhra Pradesh is the fifth largest state in India, with an area of nearly 278,000 square kilometers, accounting for 8.4 percent of India's territory. It is also the fifth most populous state with a population of 76 million. Administratively, the state is divided into 23 districts, 79 revenue divisions, 1,123 mandals (cluster of villages), about 27,000 villages and 264 towns. Over 75 percent of its land is covered by river basin. The economy of the State is largely dependent on agriculture.

Both the public and the private sector provide Indian traditional medicine, e.g. Ayurveda and Homoeopathy. However allopathic medicine is the dominant system of medicine in both sectors.

Public Sector

The Department of Health, Medical and Family Welfare (DoHMFV) was set up in 1922 as the nodal agency for delivery of primary and secondary health care to the people of the State. Primary objectives of DoHMFV are (i) to provide quality, accessible, equitable, affordable and guaranteed health services to the poor, both in rural and urban areas and (ii) facilitating, partnering and providing regulatory frameworks for private sector and civil society health services (Price Waterhouse Coopers, 2008d).

The existing health system in Andhra Pradesh is very complex and has multiple entities coordinating with one another on issues related to health service delivery. The Department Health, Medical and Family Welfare consists of ten organizations namely 1) Andhra Pradesh Vaidya Vidhana Parishad, 2) Andhra Pradesh Health Medical Housing and Infrastructure Development Corporation, 3) Andhra Pradesh State AIDS Control Society, 4) Commissionerate of Family Welfare, 5) Directorate of Health Services, 6) Directorate of Medical Education, 7) Institute of Preventive Medicine, 8) Andhra Pradesh Yogadhyana Parishad, 9) Drugs Control Authority and 10) Ayurveda, Yoga, Naturopathy, Unani, Siddha (AYUSH). (See the annexure for details on each organization)

The department also oversees the following autonomous bodies: Sri Venkateswara Institute of Medical Sciences (SVIMS), NTR University of Health Sciences, MNJ Cancer Hospital and Andhra Pradesh Aromatic Plants Board. With the inception of the Andhra Pradesh Health Sector Reform Programme, the Strategic Planning and Innovation Unit (SPIU) and State Program Management Unit (SPMU) have become autonomous bodies overseen by the DoHMFV as well.

Organization of Health Delivery System in Public Sector

In the public sector there are four types of service delivery units based on the levels of care provided by these units: 1) Sub-Centers, 2) Primary Health Centers, 3) Community Health Centers and 4) District Hospitals.

Sub-Centers: Sub-center, also known as a sub-health center, is the first contact point between the primary health care system and the community. As per the government norms, there is one sub-center for every 5,000 people in plain areas and for every 3,000 people in non-plain areas, e.g. hilly and tribal areas. It is the most peripheral of the service delivery, with referral system linking it to the primary health center, which caters to 20,000 – 30,000 population. A sub-center is the most accessible health care center to the community at the grass-root level and provides all the primary health care services. These health services include: antenatal, natal and postnatal care, immunization, prevention of malnutrition and common childhood diseases, family planning counseling and services. They also provide drugs, free of cost, for minor ailments such as diarrhea, fever, worm infestation etc. The sub-center also carries out community needs assessment. Added to the above, the government implements several programs, both national health and family welfare related, that are being delivered through these sub-center workers (Price Waterhouse Coopers, 2008f).

Primary Health Centers (PHC): The primary health center is a rung above the sub-center in the three-tier health system in the state. It is a basic health care unit that provides integrated curative and preventive health care to the population primarily in the rural areas, with emphasis on preventive aspects of health care. The primary health center, along with the sub-centers, are designed to provide more effective coverage to the rural population on the basis of one primary health center for every 30,000 people in plain areas and one for every 20,000 people in hilly and tribal areas. Primary health centers are the main service delivery units of rural health services, often the first main stop for health services from a qualified doctor in the public sector for the sick. These health centers act as the first referral unit to those who are directly reported by or referred from sub-centers for curative and preventive health care. Every primary health center has 4–6 indoor beds for patients and it acts as a referral unit for 6 sub-centers. If the services at the primary health center do not meet the needs of the patients, they are referred to community health centers and higher order public hospitals at sub–district and district hospitals (Price Waterhouse Coopers, 2008f).

Community Health Centers (CHC): These are the First Referral Units (FRUs) and form the secondary level of health care provision. The community health centers are designed to provide referral health care for cases from the primary health centers and for those patients in need of specialist care who approach the center directly. There are four primary health centers under each community health center, whereas each community health center caters to approximately 120,000 people in plain areas and 80,000 people in tribal and hilly areas. The community health centers are 30-bedded hospitals that provide specialist care in surgery and pediatrics, curative medicine, obstetrics and gynecology (Price Waterhouse Coopers, 2008f).

District Hospitals and higher referral care units: The district hospital is the main port of call for the district health system. It functions as a secondary level of health care which provides curative, preventive and promotive healthcare services to the people in the district. It also forms the fundamental basis for implementing various health policies while it delivers healthcare and management of health services for a defined geographic area. Every district hospital is linked with other health service delivery units such as the sub-district or sub-

divisional hospitals, community health centers, primary health centers and sub-centers. The district hospitals caters to the people living in both urban areas, such as the district headquarters, towns and adjoining areas, as well as the rural areas of the district. The district hospital works not only as a curative center but also as an interface with the institutions external to it, including referring patients to other tertiary care centers for specialized care, including those controlled by non-government and private voluntary health organization (Price Waterhouse Coopers, 2008f).

Private Sector

Andhra Pradesh is the first State in India that has envisaged the role of private sector in its Vision 2020 in assisting the State efforts to achieve the health objectives (Rao, 2003). The private sector plays a dominant role in the delivery of health services in Andhra Pradesh and the State house several internationally renowned research institutes. The private sector accounts for over 72 percent of in-patient admissions and over 85 percent of out-patient contacts – both significantly above national averages (National Sample Survey, 52nd Round). The sector is however unregulated and data on quality and coverage is deficient (Rao, 2003). Obstetrics is the single largest specialization in the private sector (Center for Good Governance, 2006).

The private health institutions can be broadly classified into for-profit and non-profit institutions:

- *The non-profit or voluntary providers* accounts for a very small share of health care services – one percent of ambulatory care and four percent of hospitalization services. The majority, 92.8 percent, of all voluntary services are situated in urban areas (Mahapatra, 2002).
- *The for-profit providers* are the major contributor to private health care services. These are provided by broadly three categories of persons/institutions (i) non-qualified providers, (ii) qualified proprietary clinics/nursing homes/hospitals and (iii) corporate hospitals.

The non-qualified providers are also referred to as Registered or Rural Medical Practitioners (RMPs). Generally, the rural medical practitioners are unqualified nurses or assistants to doctors, who after gaining substantial experience act as the first contact for health care in villages. This cadre of health workers is widespread in the State and they are the most accessible and affordable sources of treatment for the poor, thus many turn to them for even serious diseases of children and adults. Thus their wide presence and coverage, there is no real evidence on the quality of care they provide. Some of the anecdotal evidence points to harmful practices reported in the State, indicating that there is an extensive use of unnecessary or inappropriate drugs in the care the Rural Medical Practitioners provide. This cadre furthermore plays an important role in the referring system, as links to private hospitals for recruiting patients for surgeries and tertiary care (Center for Good Governance, 2006).

Private medical doctors operate out of small clinics and small nursing homes that are mostly small in size with 30 or less bed capacity. The vast majority, 87 percent, of for-profit hospitals fall under this category. The number of doctors and the size of the clinics and nursing homes are also dependent on the economic status of the population. Bed ratio of the public hospitals to private varies from 0.9 to 2.9 based on how economically developed the district is (Mahapatra, 2002). There is however no systematic evidence on the quality of care for these types of providers (Center for Good Governance, 2006).

The Corporate sector in Andhra Pradesh entered health care delivery in 1989 with the establishment of Apollo Hospitals. There is uncertain knowledge of the exact size and nature of the corporate sector but a trend of expansion has been noticed in recent years. The State Government has further encouraged the corporatization of medical care by providing government land, while the central government has offered tax concessions on import of medical equipment (Narayana, 2003). Most of these corporate hospitals are large in size and are located in affluent urban areas of the State (Center for Good Governance, 2006). On April 1st, 2008, the Central Government prescribed a five-year tax holiday for new health care facilities in tier-II and tier-III cities. This was seen as a first step by the government to incentivize investors to strengthen the health care infrastructure through the corporate sector.

Public Private Partnerships

Collaborations between the private sector and the government in the delivery of health services are of recent origin in Andhra Pradesh. The collaborations have effectively started during the early nineties, the period of inception of the World Bank projects – India Population Project VIII and Andhra Pradesh First Referral Health Systems Project. Many of the collaborations are continuing and take shape in various forms: buying and selling health services, contracting out clinical and non-clinical services, facilitating and promotion of partnerships and pure business partnerships (e.g. telemedicine projects). The role of each sector in partnerships differs from project to project (Rao, 2003).

A project for health care services in urban slums was a first innovative effort to contract private providers, non-profit organizations, to provide primary health care. The Government of Andhra Pradesh has thereafter undertaken major initiatives with the private sector for health care delivery. Emergency Management and Research Institute (EMRI) is a non-profit organization originally providing ambulance services in Hyderabad was in 2006 asked by the government to scale the services to cover rural areas. EMRI was contracted to provide ambulance services to the entire state and the government has thereafter contracted the sister organization Health Management and Research Institute (HMRI) to provide primary health care services through mobile vans in rural areas and a toll-free health helpline providing standardized medical information, advice and counseling. HMRI is furthermore conducting research for the government, based on the large amount of health data the organization gathers through its services. HMRI also has several education initiatives including training of Rural Medical Practitioners to improve the quality of care and the link to the public sector. These public private partnership contracts are large, whereas HMRI receives government

funding of more than USD 65 million per year for the services provided. These initiatives are still young and the impact is not yet evaluated.

Though it is noteworthy how these partnerships have enabled new approaches to health care delivery. Health care providers, researchers and policy makers around the world have shown interest in the innovations sprung from the public private partnerships in Andhra Pradesh. The government has, however, been criticized for the management of the contracts and for lack of transparency, though noble intentions of the partnerships. The combination of the private sector's ability to spur innovation and the public sector's funding and broad reach have laid a good foundation for large scale pilots. Hopefully such efforts will continue to arise and be maintained, while improving transparency, cost-effectiveness measurements and monitoring.

Chapter 4:

Context of Health Sector Reforms in Andhra Pradesh

International organizations such as the World Bank, European Commission and Department for International Development (DFID) have a history of being involved with the health sector in Andhra Pradesh, starting with the World Bank's Andhra Pradesh First Referral Health System Project in 1995. Additionally, the Bank also supports the improvement of primary health care in the State through the support it lends to Andhra Pradesh Economic Restructuring Project.

The European Commission got involved in the reforms projects in the state, starting in 1997, by supporting the Sector Investment Programme, which focused on formulating the State Population Policy that set goals to be achieved in terms of demographics by 2020. The aim was to improve the family planning services through the provision of additional funds, provide incentives to the providers and beneficiaries of the services, as well as train the stakeholders to achieve the goals (Price Waterhouse Coopers, 2008b).

Department for International Development (DFID) has been working with the State for more than a decade, with focus on human development, increasing livelihood security, promoting governance reforms. In this context DFID has aimed at fiscal stabilization and empowerment of women and disadvantaged groups. DFID is furthermore supporting a three-year phase of the Andhra Pradesh Public Management and Service Delivery Programme that gives priority to health sector service delivery for improvement in health (Price Waterhouse Coopers, 2008b).

Recent health sector reforms embarked upon by the Government of Andhra Pradesh, with technical support from DFID, are built upon long experience of working on restructuring the health system. The Andhra Pradesh Health Sector Reform Programme was conceived in a climate that was supportive to the implementation of reform programs. Important contextual factors with implications on the reforms are: (i) the political context, (ii) the economic context and (iii) the health status of the population. These factors have played a key role in conceptualizing the reforms.

Political Context of Reforms

The process of restructuring the health system in Andhra Pradesh was started before the beginning of actual health sector reforms in the early 1990s, alongside the economic reforms that started in the State. N.T. Rama Rao, a popular film star-turned-political leader, founded a regional party called the Telugu Desam Party and came to power in 1983, defeating the then Congress party. Mr. Rao introduced several populist schemes and among other initiatives, he undertook the reformation of the health sector. To combine both preventive and curative health care, he created the Andhra Pradesh Vidya Vidan Parishad (APVVP) by enacting an Act in the Legislative Assembly in 1986. The aim was to simplify administration, to easily monitor the flow of funds and provide one base for all inputs, processes and outcomes. In order to develop housing and other infrastructure for medical and paramedical

staff and construct sub centers, primary health centers, hospitals, dispensaries and clinics, Mr. Rao also set up Andhra Pradesh Health, Medical and Housing Infrastructure Development Corporation in 1987. He formed autonomous bodies such as the NTR Health University, which helped address the needs of tertiary care in the State (Mooij, 2003).

The Telugu Desam Party was defeated in 1989, but it came back to power in 1993, and at that time a committed leadership emerged to explicitly attempt reforms. In September 1995, Chandrababu Naidu, the son-in-law of N.T. Rama Rao took over as Chief Minister in Andhra Pradesh in a political coup, despite both belonging to the same regional party. Under the leadership of Chandrababu Naidu, a new phase in the State reform process started and he became a strong advocate of reforms. While the reforms processes were already started with the Indian Government liberalizing its economy in 1991, from 1995 Andhra Pradesh became one of the leading advocates of reforms in the country. It became the first state to negotiate with the World Bank on an independent loan for Andhra Pradesh Economic Restructuring Programme. This loan supported, among other things, the economic reform policies and encouraged e.g. advancement of contracted services and a freeze of recruitment in the public health sector. Very soon other donors followed suit and Andhra Pradesh became a popular State among international donors, including European Commission and DFID (Mooij, 2003).

In 1999, the Naidu government brought out the Andhra Pradesh Vision 2020, a plan laying down the direction the State should head for in the next twenty years. Several bold steps and unpopular measures were undertaken, such as raising electricity charges, bringing down subsidies on rice and a partial lifting of prohibition on alcohol, while the main focus was on governance. The plan emphasized that the government should be made transparent, responsive and accountable, as well as that people should have a voice in the governance of the State (Mooij, 2003).

In 2004, the Congress Party came to power in Andhra Pradesh, with Dr. Rajshekar Reddy as the Chief Minister. He came to power with health as one of the three main priorities in his party's manifesto. When he became the leader, his government committed itself to dealing with the problems in the health system and put a concerted effort in making health care more equitable and also accessible to the poor. With this rationale, the government initiated a few innovative health projects in the state: Rajiv Aarogyasri health insurance scheme for the poor, Emergency Management and Research Institute (EMRI) to address the emergency services in health care, Health Management and Research Institute (HMRI) to provide boundless medical advice and to make health information accessible to the public. It was under the leadership of Dr. Rajshekar Reddy that the government of Andhra Pradesh embarked on Andhra Pradesh Health Sector Reform Programme, which is partly funded by DFID.

Key Reform Initiatives until 2006

The reform process in the State, as mentioned above, goes back to more than two decades. In 2004, the Ministry of Health and Family Welfare of the Government of India recognized the need for assessment of various undertaken initiatives as part of the health sector reform

process. This resulted in two important documents for policy makers and which have information related to history, content, process and outcomes of health sector reforms in 17 States. It was in the second document, title 'Health Sector Reforms in India: Initiatives from States-II', released in March 2007, that the health sector reforms experience of Andhra Pradesh was discussed. The document highlights the key reform initiatives undertaken by Andhra Pradesh before 2006 as (Ministry of Health and Family Welfare, 2007; Price Waterhouse Coopers, 2008c):

Governance

- ***Strengthening of referral institutions and fixing of service norms:*** With a view to optimize utilization of resources, reduce wastage of resources and avoid duplication, a system of service norms and referral linkages was developed. These norms also regulate patient flow and reduce cost of treatment by reducing patient burden at tertiary hospitals.
- ***Reforms to Quality of care:*** In order to improve the quality of primary health care services, a system of performance rating has been developed to rate primary health centers and community health centers. The same was done for secondary hospitals as well.
- ***Formation of Hospital Advisory Committee or Hospital Development Societies for all Primary Health Centers and First Referral Units:*** To guide and oversee the functioning of public hospitals, these committees and societies were established. The aim was to improve the service delivery at these hospitals by making the hospital staff accountable to these committees and societies.

Service Delivery

- ***Improvement of drug supply:*** To ensure regular supply of drugs at all times and in all situations, a system of three sources of drug supply has been put in place.
- ***Formation of Andhra Pradesh Health, Medical and Housing Infrastructure Development Corporation:*** The Corporation has been formed to develop housing and other infrastructure for medical and paramedical staff and construct sub centers, primary health centers, hospitals, dispensaries, clinics and other health care centers. Also, the corporation is responsible for acquiring medical equipment, drugs and supplies for all health institutions in the state in a centralized manner and supplies them to health institutions as per need.
- ***Strengthening of Primary Health Centers as 24 hours Maternal and Child Health Centers:*** To make all maternal and child health care available at all times at the primary health centers in the backward districts, these health centers have been designated as round the clock maternal and child health centers.

- ***Establishment of Comprehensive Emergency Obstetric and Neonatal Care centers:*** These centers have been established across every district, to enable that pregnant women do not have to travel more than 40-50 kilometers to receive specialist care.
- ***Public Private Partnership***
 - *Management of Urban Health Centers by NGOs:* The reason for contracting out the management of urban health centers to NGOs is to increase the availability and utilization of health and family welfare services to those living in the slums. Also, the focus was to build an effective referral system from the community to the urban health centers and increase the over all health awareness and improve health seeking behavior among the slum dwellers. The goal has been to reduce mortality and morbidity especially among women and children in slums.
 - *Rural Emergency Health Transport System:* A scheme of transport system managed by NGOs and women groups was introduced in order to provide 24-hour rural ambulance services to pregnant women and children that require emergency care.
- ***Involving community in health service delivery and provision:*** In order to strengthen maternal care services, a scheme of Women Health Volunteers was introduced to act as a linkage between the community and service providers.

Finances

- ***Sukhibhava Scheme:*** The government has instituted this scheme to assist and enable pregnant women who are below poverty line to access the services of the hospitals for deliveries which in turn helps in reducing maternal mortality in the state. They get paid USD 6 for various expenses incurred during delivery.
- ***Provision of free travel bus passes to pregnant women for antenatal care:*** The provision has been given to enable pregnant women to go for antenatal care at the closest facility.

Human Resources

- ***Improved role definitions in the Department of Health, Medicine and Family Welfare:*** For integration of functions and coordination among various officials at different levels in the Department of Health, Medical and Family Welfare, specific responsibilities has been assigned to staff at district level. Similar responsibilities were given to officials at primary health center level in villages.

In 2004 when the Congress Party came to power in Andhra Pradesh, the political environment was already open to reforms and involvement of partners. The above listed reform initiatives and the assessment of the same inspired the government to further improve and explore new initiatives.

Health context

From 1978 to 1992, Andhra Pradesh saw a remarkable progress in health indicators. For instance, Infant Mortality Rate (IMR) decreased 58.4 points in this period, a remarkable achievement compared to other states in the country (Center for Good Governance, 2006). There has been a drastic decline of Polio and Leprosy as well. However, the indicators stagnated after 1992, while that of the other southern states kept improving. Incidence of Malaria still remains unacceptably high. With the coming of HIV, Andhra Pradesh became the most prevalence state in the country, with an estimated 0.24 million cases (NACO, 2007). Added to the disease picture, there has been a rise in non-communicable diseases due to changing lifestyles and urbanization. It was in this health context that the Andhra Pradesh government embarked on another round of health sector reforms to address the pressing public health needs in the State.

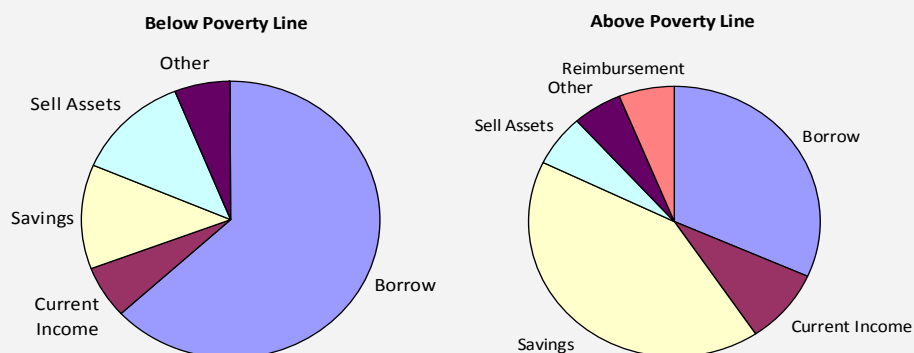
From the available data, the following is the status of a few of the important health indicators in 2007:

- Infant Mortality Rate: 53 (Sample Registration System, 2005-06)
- Maternal Mortality Rate: 195
- Malnourished children: 37 percent
- Women with anemia: 49.8 percent
- Highest rate of HIV infection in the country and prevalence of one or two percent in antenatal clinics and 22 percent in the STD clinic. This accounts for 10 percent of the number of Indians living with HIV/AIDS in the country (NACO, 2007).
- Rise in non-communicable diseases due to increasing stress, changing lifestyles and urbanization.

(Center for Good Governance, 2006)

It has been estimated that about 25.5 percent of the population do not seek any treatment whatsoever for illness, not even in the public sector (National Commission on Macroeconomics and Health, 2004).

Figure 1: Financing of Hospitalization Expenses in Andhra Pradesh, by source and economic status



Source: Estimates based on NSS 52nd Round as reported in IHSG (2003)

Nearly 65 percent of the poorest have to borrow money, often at high interest rates, and another 21 percent dig into their savings as a result of hospitalization (Institute of Health Systems, 2006). Out of the section that can afford and access routine medical care, many would face economic catastrophe if hospitalization with surgery or equivalent major health services would be needed and end up in a vicious circle of indebtedness. It was in this context the Congress Party went into power in 2004 with a commitment to improve the health care in the State and a special attention was given to the link between health care costs and the often devastating indebtedness of already poor people.

Economic context

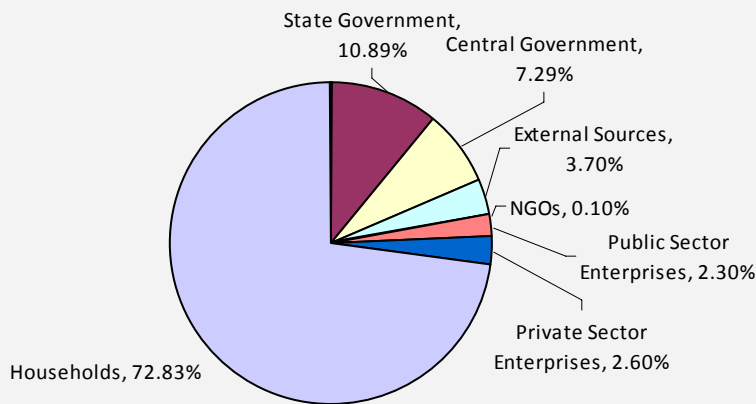
The economy of Andhra Pradesh grew at an average of three percent per annum from 1993 to 2006, less than the national average. In this context and with other government priorities, e.g. irrigation, the health department expenditure fell from 5 percent to 3.7 percent of the expenditure of the State Government between 2000 and 2006. Per capita public health expenditure in 2005-06 was only USD 4. It has, however, been debated that the major problem has not been lack of resources but the inefficient allocation of the resources. There was a need for increased budget allocation to health care but there was also a need for a political commitment to improve the management to advance the effectiveness of the government (Government of Andhra Pradesh, 2006b).

Overall Health Expenditure in Andhra Pradesh

In 2001-2002, a total of 5.9 percent of the Gross State Domestic Product (GSDP) was spent on health (George & Pattnaik, 2002). The households in Andhra Pradesh have contributed the most in this spending, amounting to 73 percent of the total expenditure. After that, 18.5

percent was spent by the central and the State Government on provision of health to the general population and to its employees. Another five percent was spent by the public and private enterprises on the health of its employees. The external aid received by the state and the non-profits to spend on health amounted to 3.7 percent (National Health Accounts, 2002; Institute of Health Systems, 2006).

Figure 2: Percent Distribution of Health Expenditure in Andhra Pradesh, by source of funds (2001-2002)



Source: Estimates of State Health Accounts for Andhra Pradesh (2001-02) revised using household health expenditure data from the National Health Accounts India (2001-02).

The State Government Health Expenditure

The Government expenditure on health is divided among the following:

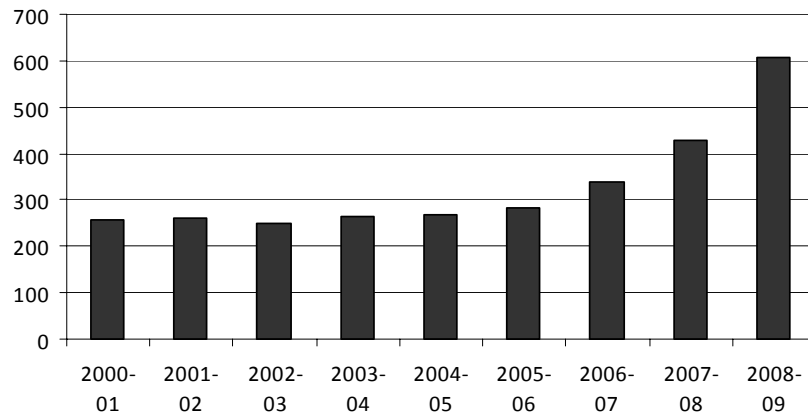
- Department of Health, Medical and Family Welfare (DoHMFV) and in-kind transfer of materials and supplies from Ministry of Health and Family Welfare
- Other line departments of the State Government such as the Labour, Women and Child Welfare and Tribal Welfare
- Government organized Societies for disease control and family welfare
- Reimbursements for health care of its employees

Department of Health, Medicine and Family Welfare Expenditure

The expenditure of DoHMFV was relatively constant up until 2006 when the health care of the state was put into new light and major new initiatives were introduced along with additional funding from the National Rural Health Mission (NRHM) and DFID. It must however be recognized that the additional funding from e.g. NRHM only represented 3.6 percent in 2006-07 and 4.5 percent in 2007-08 while most of the 25 percent growth in health care expenditure between these two years was a result of increased allocation by the State

Government. The economic growth brought an increased tax base which in combination with the strong political commitment to health care led to significant investments.

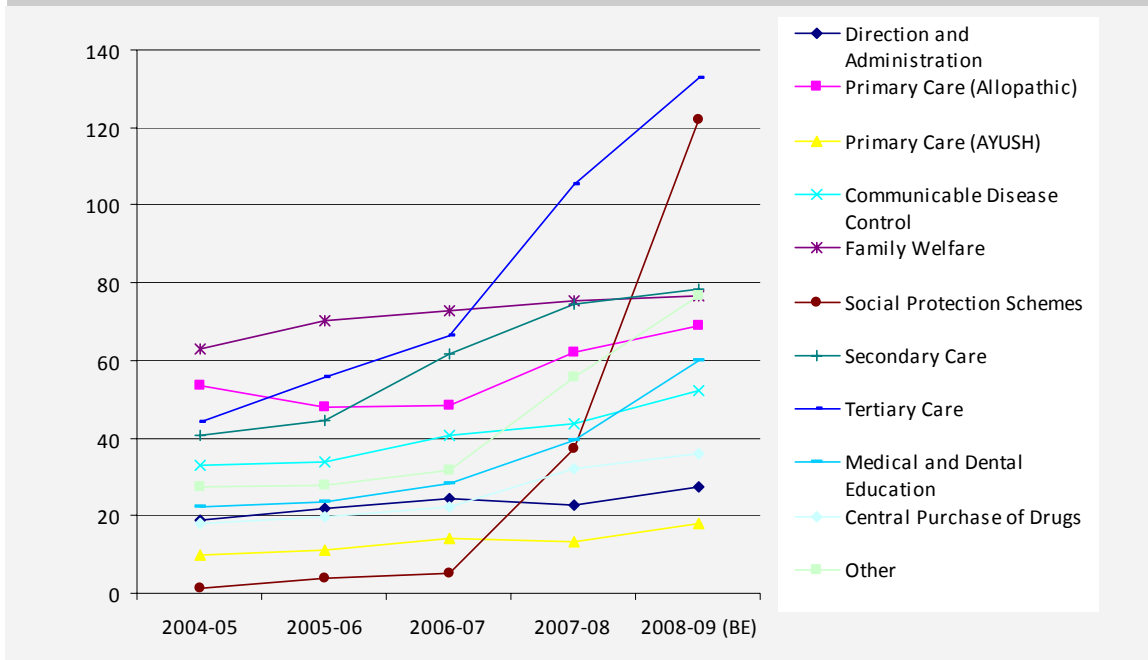
Figure 3: Expenditure DoHMFWS in Constant Prices (USD million)



Source: Government of Andhra Pradesh, 2009

There was a significant increase in the health care expenditure between 2006 and 2008. The major portion of this growth in expenditure is found in tertiary care, representing 18 percent of the increase in expenditure, social protection schemes representing 16 percent and secondary care, representing 10 percent of the increase in expenditure.

Figure 4: Expenditure Patterns (USD millions)



Source: Government of Andhra Pradesh, 2009.

The following is the expenditure by the health department based on services:

- Primary Care:** Expenditure on primary care includes that on provision of services through primary health centers, sub centers, maternal and child health centers, department of health dispensaries and societies. It also includes expenditure on disease control programs, family welfare programs, quality control of water, food and drugs, as well as manufacture of vaccines. Between 55-58 percent of the State's health expenditure was allocated for the provision of these primary care services up until 2006. The total expenditure did not decrease but the relative percentage of the overall expenditure decreased due to major initiatives for tertiary care.
- Secondary Care:** Secondary care expenditure includes that on provision of services through secondary care institutions of the Department of Health, medical colleges and non-profit hospitals providing secondary level eye care. About 14 percent of the DoHMFWS expenditure has been on the provision of secondary care services while the budget for 2008-2009 gives 10 percent which is a result of major increases in other areas. The expenditure is still estimated to increase from approximately 74 million USD in 2007-08 to 78 million USD in 2008-09.
- Tertiary Care:** About 22 percent of the DoHMFWS budget has been allocated for Department of Medical Education (DME). About 15-17 percent is spent on provision of treatment while the rest of the spending is on repayment of loans, education and related expenses. About two percent of the total DoHMFWS budget is spent on providing assistance to autonomous tertiary care institutions, assistance for free

treatment at these institutions and assistance for care of children with heart problems. The remainder is spent on provision of tertiary care services through intuitions under the DME.

- **Social Protection Schemes:** This represent the major difference in health care expenditures the last couple of years. The allocation has gone from one percent of the DoHMFWS expenditure to an estimated allocation of 16 percent. This is mainly through the introduction of the community health insurance scheme Aarogyasri which covers the major health care expenditures for people below poverty line and mitigates the risk of indebtedness due to costs of tertiary care.
- **Other:** Expenditure on government administrators includes that on secretariat and state and district headquarters of sub-departments. They account for about eight percent of the budget. Other training and education institutions account for about one percent of the budget.

Expenditure by Societies

In Andhra Pradesh, there are many societies, non-profit organizations that address specific health issues such as Tuberculosis, HIV/AIDS, Malaria, Leprosy and blindness. The purpose of these societies appears primarily to serve as a conduit for an easy transfer of new funds directly to entities related to vertical programs. The societies are primarily funded by external aid and the Government of India. Share of the expenditure from the State Government has been minimal.

Health Expenditure by Other Departments of State Government

Health expenditure by other departments includes (i) expenditure on Insurance Medical Services by Department of Labor, (ii) expenditure on Tribal Health Services by Department of Tribal Welfare and (iii) expenditure on Integrated Child Development Services (ICDS) by Department of Women Welfare and Child Welfare.

Additional State Allocations towards the Health Sector Reforms

The Government of Andhra Pradesh has developed a Mid-Term Expenditure Framework (MTEF) to identify a sustainable resource envelope and match this to the cost to implement the health strategy. Based on the MTEF suggestions, the government has committed to increase allocation to the health department over five years from USD 316.8 million to USD 762.1 million between 2006 and 2011. This will raise the share of health expenditure from 3.7 percent of government expenditure to 5.5 percent and per capita public health expenditure from USD 4 to USD 9. The budget for 2008-09 provides a public expenditure per capita of USD 8, which is close to the set targets.

The additional resources for health care have been critical for the development of the major contract arrangements and especially the health insurance scheme but it was also evident that the financial management of the Department of Health, Medicine and Family Welfare (DoHMFWS) had to improve. The Andhra Pradesh Health Sector Reform Programme (APHSRP) went into effect with the aim to strengthen the management of the DoHMFWS,

including the financial discipline. DFID provided a loan for technical assistance to this initiative for three years and the program has resulted in capacity building, human resource strategies, initiatives to improve the community participation and accountability.

Chapter 5: Ongoing Health Sector Reforms in Andhra Pradesh

Health in the State of Andhra Pradesh was an articulated priority of the Congress Party when they came to power in 2004. The Chief Minister Dr. Rajshekar Reddy was especially focused on equity in the health care system and how to improve the services for the poor. The underlying philosophy was not only to improve the service delivery but also to address the link between poverty and healthcare; it had been recognized how health care costs is the main reason to indebtedness and often lead to poverty. A comprehensive social protection scheme was therefore introduced along with several innovative health care delivery models under the reform process. The common aim of these initiatives is to improve equity and access to health services. Technology and new approaches in service delivery have been introduced as tools for efficiency and quality to reach the Millennium Development Goals in the State.

As part of the reforms, the Andhra Pradesh Health Sector Reform Programme (APHSRP) was formulated by the Government to strengthen the management in the reform process and improve the accountability and community participation. An evidence of the political commitment is the significant increase in resources for initiatives related to the health sector reforms. The expenditure by the Department of Health, Medicine and Family Welfare has more than doubled in 2005 to 2009. The estimated budget for 2008-2009 is approximately 606 million USD and less than ten percent of this funding is from the Central Government or donors.

The external support is not significant in relation to the entire budget but the technical support has been critical. DFID committed 40 million pounds (approximately USD 59.4 million) worth of financial resources to the State health department, for a period of three years, starting from 2007 and ending in 2010. This support aims to strengthen health sector management, capacity building, and monitoring and accountability systems within the health department, with the aim to improve the delivery of basic health services to the poor.

Health care delivery initiatives involving private providers

The main initiatives for contract arrangements with private health care providers to improve the access to health care were initiated in 2006. It must however be recognized that the government's openness to the private sector had been demonstrated already before the Congress Party came into power in 2004. The Urban Slum Project is an example where primary health care centers in urban slums, had been contracted to local non-government organization with support from the World Bank.

The underlying philosophy by the Chief Minister of the Congress Party was to improve access to quality care for the poorest. He recognized that the public hospitals could not attract the needed medical specialists and did also not have adequate equipment. He saw an opportunity in harnessing the vast private sector in health care delivery to benefit the poor.

Philanthropic capital in Andhra Pradesh has enabled the creation of major private health care providers with strong management, high effectiveness and an impressive ability to scale the services. The Government of Andhra Pradesh acknowledged these organizations and realized that they were more likely to provide high impact in a short period of time than the government alone.

The Emergency Management and Research Institute (EMRI) had in less than two years time transformed ambulance services in the city of Hyderabad and the government approached them to scale the services to rural areas. The National Rural Health Mission agreed to provide 95 percent of the funding given the role ambulance services can have for improved access to emergency obstetric care. The remaining five percent of the funding was committed by the local philanthropist to e.g. cover the top salaries in the organization to ensure the senior managers would stay. The structure of cost-sharing with the private entity, already existing investment in infrastructure by the private organization and the non-profit approach made the government contract EMRI directly and not go through an open bidding process.

It can be summarized that a series of enabling factors came together for the contract arrangements to materialize; the government was familiar with contract arrangements in other sectors but also in health care, there were many private providers already serving the poor and there was a willingness in the private sector to engage with the government and, according to many the most important factor, there was a political commitment and eagerness to see fast and high impact for the population of Andhra Pradesh. Three major contract arrangements for improved access to quality health care services are presented below.

Case Study 1: Aarogyasri Community Health Insurance Scheme

Background

The Chief Minister Dr. Rajshekar Reddy turned to PK Agarwal, then Principle Secretary at Department of Health, Medicine and Family Welfare (DoHMFW), for assistance to develop a strategy for how to effectively improve the services of the poor. PK Agarwal was asked to spend three days listening to the problems of the poor coming to the government with requests related to health. One woman brought in her elderly mother who was ill and in a wheel chair. She wanted money to pay for medical care. A doctor examined the mother and concluded she did not have many years left and there was no support to be provided. The devastated daughter turned to the Chief Minister saying a few years with her mother is significant to her life. The Chief Minister turned to Principle Secretary and asked him to think about how this could be solved. The outcome was the Aarogyasri Community Health Insurance Scheme for the population Below Poverty Line for which the Government has stepped in to cover the premium for the insurance.

The motivation for the focus of the Aarogyasri scheme is, according to PK Agarwal, the social protection, addressing the healthcare problems that cause indebtedness and often

bring people in devastating distress. The Aarogyasri scheme provides financial protection to families holding a White Card² for treatment requiring hospitalization up to approximately USD 4,500 in a year. At the same time, the DoHMFV recognized how public hospitals do not have the capacity to handle all the cases and do not have the specialists required for many of the severe cases. DoHMFV therefore decided to reach out to the private hospitals.

There have been several attempts to introduce similar schemes in other states but Aarogyasri has proven unique in the ability to roll out the scheme. The main success factors were:

1. Not collecting a premium – which would have required tremendous administration costs, plus that many people would not have enrolled even if the amount would have been nominal.
2. Collaborative private sector – agreed to low reimbursement rates for the provided services and agreed to carry the cost of the compulsory health camps where thousands of people are screened every day in the rural areas.
3. The existing White Cards – which made it easier to attract health insurance companies; there was a system to build upon to identify the people to be insured.
4. The use of technology with the more than 180 networked hospitals connected, and transfer data, in real time for pre-authorization and monitoring.

Though, there has been criticism in India and internationally in terms of priorities of the scheme. The main criticism has targeted a lack of attention to the health problems faced by the majority of the poor such as fever and gastrointestinal disorders. The two main reasons for the chosen focus of Aarogyasri are (1) the purpose of addressing indebtedness due to health care costs and (2) the challenges with monitoring treatment of ailments without hospitalization.

The scheme initially covered 330 procedures but has now expanded to include an addition of 389 surgical and 144 medical diseases. The diseases specifically excluded from the list are:

- High end diseases such as hip and knee replacement, bone marrow, cardiac and liver transplantation, gamma-knife procedures in neuro surgery, assisted devices for cardiac failures etc;
- Diseases covered by National programs such as TB, HIV/AIDS, Leprosy, infectious diseases, Malaria, Gastroenteritis, Jaundice etc.

Overview

The lack of specialist doctors and lack of adequate equipment were among the main reasons for the government to engage the private sector.

2) The White Card was initially introduced to define the Below Poverty Line (BPL) population, while it has been estimated that approximately 80 percent of the population of Andhra Pradesh currently holds a White Card, and are therefore eligible to the Aarogyasri health insurance scheme. The definition of BPL population has been further questioned and within the State departments the opinions of the definition varies. Government officials have defined Below Poverty Line as the person coming to the government begging for help; the motivation is that e.g. farmers can be in severe financial distress despite holding assets which the farmer suicides illustrates. The current numbers of people holding White Cards has been criticized and said to reflect existence of corruption, and facilitating a misuse of the system.

Given the scenario with severe indebtedness among poor due to health care costs, financial assistance of USD 315 million was provided for 2004 - 2007 from Chief Minister's Relief Fund to financially assist about 55,360 cases in meeting hospitalization expenses for the poor. From this experience, it was felt that this form of assistance could be institutionalized for the benefit of the poor who cannot afford health care.

The Government of Andhra Pradesh has set up Aarogyasri Health Care Trust under the chairmanship of Honorable Chief Minister. The Trust, with support from the specialists in the field of insurance and together with medical professionals, has formulated a tailor-made insurance scheme, called the Rajiv Aarogyasri Community Health Insurance Scheme. The Star Health and Allied Insurance Co. Ltd, was selected, through a competitive bidding process, to implement this scheme. The entire scheme is being implemented through the contract of this private insurance firm and a memorandum of understanding was signed with the company in April 2008. At first the project was piloted in the three most backward districts of Andhra Pradesh but now covers the entire State. The insurance coverage under the scheme is in force for a period of one year from the date of commencement of the policy.

The scheme provides coverage for meeting expenses of hospitalization and surgical procedures of beneficiary members up to USD 4,000 per family per year, subjected to limits, in any of the network hospitals. Cost for cochlear implant surgery with auditory verbal therapy is reimbursed by the Trust up to a maximum of USD 13,000 for each case. The Government covers the insurance premium and the entire scheme is cashless for the patients.

Health care delivery model

An important aspect of the scheme is the health camps which are main source of mobilizing the beneficiaries under the scheme. Most of the network hospitals are conducting regular free health camps under the Rajiv Aarogyasri Community Health Insurance Scheme. These camps are held as per a schedule and place given by the Trust. As of now, 183 network hospitals are conducting around 500 camps in a month in 13 districts. Patients are screened based on guidelines and the interaction with the health workers is providing additional opportunities for health advice.

Another contact point is the primary health centers and government hospitals in the District, where the representative of the insurance company has a help desk known as Aarogyasri Help Desk. The desk managed by an Aarogyasri Health Coordinator who is appointed and paid by the insurance company. The Aarogyasri Help Desk refers patients on the recommendation of the doctors to the hospitals in the network. The hospital is chosen by the Below Poverty Line family member's and not forced upon them.

At the network hospital, the insurance company has an Aarogyasri Assistance Counter and there is a Medical Doctor working full time with Aarogyasri, as well as Argoya Mithras who are assigned to facilitate for the patients. One of the aims of the Aarogyasri Assistance Counters at the network hospitals is to facilitate cashless transaction connected with

discharge of patient. All the individuals whose photographs and details appear on a White Card are the eligible for these benefits.

Moreover, the network hospitals provide following additional benefits to the Below Poverty Line beneficiaries: (i) Free out-patient consultation, (ii) free tests and medical treatment for beneficiaries, who might not avail any surgery or therapy procedures, (iii) minimum 24-26 free Health Camps in villages in a year for screening of the Below Poverty Line patients suffering from identified ailments, and (iv) free transport to the patient identified for surgery or therapy.

Strengths of the model

As of May 2009, this scheme has covered over 250,000 operations, over 1.5 million patients have been screened and 168 million dollars have been claimed. The strengths of the scheme are that it promotes cashless transaction and by doing so it minimizes the scope for corruption in these facilities, but also reduces anxiety and financial burden on the poor. Patients get admitted, operated and discharged without paying any money, while the Government has stepped in to pay the yearly premium for the patients.

Additionally, immediate pre and post operative expenditure is included in packages, so as to minimize the other financial expenses to the patient. Unlike private insurance scheme where most of the pre-existing diseases are not covered, with Aarogyasri, all the pre-existing conditions are covered from the day one.

Schemes similar to Aarogyasri have been criticized for severe delays in reimbursements and private hospitals with outstanding payments to suppliers have not been able to participate in the schemes due to cash flow problems while Aarogyasri has proven effective in timely reimbursements which have further built trust with the private providers.

The networked hospitals have been keys to the scale of the scheme and the contract arrangement for the administration of the scheme has been critical for the effectiveness of the implementation. The scheme has also promoted coordination with the health departments at various levels, district collectors, civil supplies department etc.

Challenges of the model

The scheme has many innovative features and other schemes from all over the world can learn from the model. Many experiments of the scheme need to be assessed while the management of the health insurance scheme has both limited resources and capacity to evaluate the effectiveness of the different features. Also, there is a large and continuously increasing amount of data that needs to be analyzed. Overall, there is need for technical support for operations management and statistical analysis.

The scheme is managed through a contract with the private company Star Health and Allied Insurance, for which the government was criticized for lack of transparency in the negotiation process. Health insurance schemes are associated with significant financial risks and there have been indications that there is a need for capacity building and support for

risk management, as well as monitoring finances and performance of the health care providers.

Case Study 2: Emergency Management and Research Institute (EMRI)

Overview

Over 200,000 people need medical emergency a day in India. Over 86,000 people die in accidents and another 453,000 people suffer from serious injuries in accidents in a year in India. In India, Andhra Pradesh has the highest number of road accidents; during 2005, four accidents per hour and 1.3 deaths per hour occurred in the State. The ambulance services were highly fragmented and unorganized. This scenario inspired Mr. Ramalinga Raju to create the Emergency Management and Research Institute in Andhra Pradesh.

Emergency Management and Research Institute (EMRI) was funded by the Raju brothers, of Satyam Computers Services, with the vision of an emergency response service at global standards applying innovative technology to respond to 30 million emergencies and save one million lives per year. The toll-free number 108 enables people to call from landlines and mobiles to access medical, police and fire department support. The ambulances are equipped to provide quality care during the transportation to the hospital within the golden hour. The delivery model has been developed to provide a single seamless solution for scale, which builds on a combination of existing software and in-house developed technology. The leadership and well-defined roles and responsibilities throughout the organization have been described as a key to the organization's success in scaling the services of emergency response.

This non-profit organization was founded in 2005 and the services were launched in Hyderabad, Andhra Pradesh. The initiative grew quickly, with the help of the Raju family's contributions of more than USD 30 million and within two years there was ambulance coverage in the city of Hyderabad, with a 21 minute response time. The government recognized the impact and encouraged EMRI to provide services outside of Hyderabad to cover the entire State including rural areas. The government stepped in to cover more than 95 percent of the operational costs through funding from the National Rural Health Mission. The funding structure enabled the system to scale and there is now 652 ambulances covering the state. EMRI receives about 57,000 calls per day. They have tied up with 3,331 private hospitals in Andhra Pradesh, apart from the government hospitals that can handle emergencies. These hospitals provide free stabilization services for the first 24 hours to the patient. Around one-fifth (21 percent) of the transported emergencies are due to delivery related complications and around the same proportion are injury related emergencies.

Health care delivery model

The toll-free number 108 enables people to call from landlines and mobiles to access medical, police and fire support. The calls are received by a Communication Officer who gathers information about the situation and then transfers the information and the call to a Dispatch

Officer who identifies the closest vehicle and gives guidance to the driver, regarding the most suitable route which not always is the closest depending on traffic and road conditions. In case of police or fire emergency the closest police office or fire brigade is connected.

Since emergency care is most critical during the first golden hour and the EMRI Advanced Life Saving Ambulances are equipped to provide quality care during the transportation to the hospital. There is an Emergency Medical Technician in each ambulance who has been trained by EMRI to not only provide medical care but is also trained in handling people in shock and how to organize the response to an emergency situation. In addition, qualified medical practitioners in the EMRI control center can provide support to the Emergency Medical Technician in the ambulance if needed. There are doctors around the clock in the control center to provide support, both to the personnel in the ambulance and to the people at the site of the emergency until the ambulance arrives.

All information related to the emergency is kept in electronic patient records, created and maintained at the EMRI control center. This information is shared with the hospital at the time of the patient's arrival at their doorstep. The organization also gathers patient records from the hospitals after the patients have been discharged, to be able to follow-up on what happen to the patient. This kind of information is collected from both public as well as private hospitals, whereas approximately 67 percent of the patients are brought to public hospitals 33 percent to private hospitals.

EMRI also conducts research on emergency care based on the patient record database, whereas e.g. the locations of emergencies are analyzed. If a specific area tends to be prone to road accidents, with increased number of emergencies during a certain day of the week, EMRI can counteract that trend by placing additional vehicles in the area during that specific time to ensure a prompt response.

The single seamless solution of the model builds on a combination of existing and in-house developed technology including Computer Technology Integration, Voice Logger System, Geographic Information Systems maps, Geographical Positioning Systems, as well as Automatic Vehicle Location Tracking and Mobile Communication System.

Relationship with the government

The public private partnership with EMRI emerged out of the State government's need to decrease the mortality associated with emergencies and increase the reach of healthcare services in rural and remote areas.

Given this success story, the National Rural Health Mission (NRHM) has supported a rapid scale-up in Andhra Pradesh but also implementation in eight other states. This is mainly because NRHM aims at reduction of maternal mortality rate to less than 80 and to improve the institutional delivery rate to above 95 percent by 2010. The EMRI services aid the work toward these goals by assisting in emergency care and emergency deliveries. NRHM has allocated more than USD 20 million to EMRI during 2007-2008. The State Rural Health Mission team has provided technical assistance and support for day-to-day operations of

EMRI, but the government has not had any method of assessing the efficiency of the services. EMRI has been reimbursed by the government for costs that have not been benchmarked nor analyzed, which in turn has been criticized. There was no open bidding process for the large contract of the provision of the emergency services in the State, which has been supported by the reasoning that EMRI provided a cost-sharing opportunity where the organization would secure senior management and five percent of the operational costs from other sources. This additional five percent has been provided by Ramalinga Raju but the corporate fraud and his imprisonment has led to a funding gap for EMRI of five percent. The government would be able to step in and cover the remaining five percent but EMRI has several reasons to stay independent. The main reason is that the government would not be able to motivate the high salary of the top management and it is unclear if the management would stay. It is still to be seen how EMRI and the government will solve this but the government has indicated a commitment to continued emergency services while hundred percent cost recovery might require an open bidding process.

Strengths of the model

Some of the major strengths of the EMRI model are its leadership and use of technology. EMRI has developed leadership with detailed process understanding and well-defined responsibilities throughout the entire organization. The organization provides an example of how a well-defined problem, committed team and new technology improve a dysfunctional system. The government funds 95 percent of EMRI and the remaining five percent has thus far been covered by philanthropic contributions. The public private partnership structure has supported the provision of emergency and pre-hospital care free of charge to the patient.

Another highlight is that the Emergency Management and Research Institute (EMRI), and its sister organization Health Management and Research Institute (HMRI), collect large amounts of data and actively analyze the data to improve service provision. The use of technology facilitates the data management and the close collaboration with Satyam Computers has resulted in world class tools for data management and analysis. Health profiles are analyzed and interventions are developed to respond to the needs. EMRI uses historic data of emergencies to proactively place ambulances in the areas with high frequency of accidents on the specific day and time.

The National Rural Health Mission has published an evaluation of EMRI which states "EMRI is undoubtedly a historic landmark in the provision of health care in the nation. To its credit goes the achievement of bringing emergency medical response on to the agenda of the nation. Though not part of the original NRHM design, its tremendous popular appeal along with the flexibility of the NRHM design made it possible for it to emerge as one of the leading innovations of the NRHM period." This endorsement by NRHM is an important supporting factor which potentially can enable a national scale up.

Challenges of the model

It is now clear that Mr. Raju's contribution towards operational costs has not materialized and will not do so given his imprisonment for severe corporate fraud. The annual contribution to EMRI of five percent of the operational costs needs to be covered by new

sources of funds. The amount is not significant in relation to the overall health care budget of the government, but the CEO of EMRI has said that they do not want the government to cover 100 percent of the costs. The five percent covers the top management, research, national training and the development of new innovations and technology. The top management costs include salaries to these key people and the government will not be able to motivate the same salaries. Another reason to prefer funding from outside the government is to maintain flexibility in decision making. Currently, it is still unclear how EMRI is to meet the non-government funding gap in a sustainable manner.

The Government of India has indicated that the state will have to step in and cover operational costs and the National Rural Health Mission will consequently reduce its share of the funding. The state government is encouraged to initially cover 40 percent of the costs and then increase to 60 percent and subsequently 80 percent of the funding. The objective, according to the Government of India, is to encourage States to commit to higher public expenditures in health. The former Principle Secretary of Health in Andhra Pradesh has shared that the State Government probably will be able to reallocate resources and meet these funding needs, but that this is depending on political commitment and that it is still unclear what the results from the 2009 election will bring.

Another challenge is the central problem and lack of an independent monitoring system which can validate the data provided by EMRI. The evaluation report from NRHM highlights there is no “contracts management cell” in the state government and the secretary deals with the data directly and there has not been sufficient time and resources allocated to analysis and validation of this data. The data provided by the EMRI is the basis of all decision making, hence the management of the contract must be strengthened.

Another central problems faced by the government is insufficient transparency in addition to the performance data. There is no member from the government on the board of EMRI or the executive committees, to ensure this transparency. There has not been much consultation with the government regarding EMRI.

The report from NRHM concluded there is a need for a closer look at the costing with benchmarks, as well as at the contractual arrangements. There is no doubt about the government’s strength in terms of innovation and ability to find new approached to effectively address major problems, while there is a general impression that the government needs support for the creation and management of the large contractual arrangements with private providers. This could address accountability issues towards the public currently being suspicions about the allocation of tax money and the government’s association with the fraud colored company Satyam.

Case Study 3: Health Management and Research Institute (HMRI)

Overview

The Health Management and Research Institute (HMRI) provides a primary healthcare delivery model, with a rural reach, which integrates innovative technological solutions and process-oriented operations in the provision of healthcare services, while supporting the public health system. The model addresses barriers to health care such as accessibility and quality of care and is focused on augmenting the public health delivery system by harnessing Information and Communication Technologies as well as modern management practices.

Through a public private partnership with the state government of Andhra Pradesh, HMRI has a unique platform to pilot large scale health interventions and thus holds potential of high impact. The model includes components such as a round-the-clock helpline for medical advice, rural outreach health services, a disease surveillance program, a blood bank application and telemedicine pilot projects.

Health care delivery model

With integrated solutions, the HMRI's health services root in a 24-hour call center for medical advice and fixed-day rural outreach services that through mobile health vans brings a team of seven health workers to rural villages providing screenings, monitoring pregnant women, provides treatment and over-the-counter drugs as well as works on health awareness creation in the local schools. Other components to the overall HMRI primary healthcare model are telemedicine pilots, blood bank applications, an Innovation Lab where technologies for the health services are developed, and a disease surveillance program facilitating research as well as disease and disaster management. The model focuses on community healthcare and strengthening the links to public institutions and the public health delivery system, as well as empowering the community itself. The model has enabled awareness creation for prevention, school screening programs and maternal health monitoring at a scale which a few years ago was implausible.

Medical Helpline: HMRI's 104-Advice operates as a free 24/7 virtual medical advice hotline. The service offers health information and advice in three languages: Telugu, Hindi and English. It provides a range of standardized health information and advice, including information about all health delivery services across the State, as well as for e.g. HIV/AIDS counseling, matrimonial discord, depression and chronic diseases. The calling center house specially trained counselors and proven state-of-the-art telecommunications equipment and technology. The provided medical advice is based on 140 directories, 400 algorithms and 165 disease summaries and the virtual platform also serves as a contact center for field workers in monitoring epidemics and disease outbreaks. The calling center receives approximately 50,000 calls per day, whereas most calls originate from small villages that have no permanent medical facilities or staff. All calls are routed to the appropriate medical personnel (e.g. doctor, nurse practitioner or psychologist) or are linked to the sister organization Emergency Management and Research Institute (EMRI) in case of an emergency.

Rural outreach: HMRI's 104-Mobile service provides healthcare services to people in underserved rural communities, through well-equipped mobile vans that visit the villages on a fixed-day basis. The vans bring medical equipment and the medical team, comprised of three Auxiliary Nurse Midwives (ANMs), a pharmacist, a lab technician and a data entry operator. The mobile medical units perform routine monitoring of children and pregnant women and also dispense medicines for chronic ailments. The HMRI team is further linked with the local village health worker, the Accredited Social Health Activist (ASHA) worker, appointed by the government. The ASHA worker also reports to the calling center about disease outbreaks in the villages and helps registering important events such as births, marriages and deaths. She is also the local anchor bringing the village population together for the monthly HMRI outreach visit. At present, the HMRI 104-Mobile service covers the entire State of Andhra Pradesh.

This primary health care model also contains a service aiming at improving the overall service provision in the State, whereas people can file complaints, through the calling center, about the services provided at both government and private hospitals. The complaints are forwarded to the government official or health care provider in charge of the particular facility and the action taken upon the complaint is recorded by HMRI and also communicated back to the individual who posted the complaint.

Relationship with the government

Inefficiencies in public sector healthcare delivery and the vast problems of affordability of health services have inspired the State Government of Andhra Pradesh to focus more on a role of stewardship in the healthcare delivery and to recognize the private providers. One of the distinguishing enabling factors of the Health Management and Research Institute (HMRI) health care services is the public private partnership structure of the model. Due to this partnership, including the funding support from the Central Government's National Rural Health Mission, HMRI has been able to build its model for primary healthcare and rapidly scale to cover the entire State. The partnership structure aims to support the provision of out-patient care to three times the population at ten percent of the costs, compared to what the public sector alone can currently deliver.

It is evident how this partnership structure has enabled a rapid and large scale-up on a startling magnitude. The partnership with the state government resulted in governmental funding of 95 percent of the HMRI initiative, which has now been providing primary healthcare services since 2007 in the State of Andhra Pradesh. As an official statement of the partnership, all the HMRI ambulances and the HMRI mobile medical vans have a large picture of the politician Rajiv Gandhi on the side of the vehicle. The importance behind this message is that it indicates that the government is taking an active part in the initiative.

Strengths of the model

The model is health system oriented in that it identifies and addresses gaps and work toward improving these gaps. Telecommunications are the core components of the delivery model, in addition to the rural outreach activities the organization has set up. HMRI creates and maintains electronic medical records at a large scale, through the creation of patient

records at the call center and through the mobile health services. Currently, the database holds more than six million electronic medical records but is expected to include 40 million, within the state of Andhra Pradesh and is then likely to hold the world's largest base of electronic patient records, by year 2010.

In terms of human resource management, the organization focuses on specialization of paramedics and the use of Auxiliary Nurse Midwives (ANMs) and local village health workers, both to work around the evident shortage of health workers as well as to build trust in the communities.

The clinical and non-clinical procedures of HMRI are strengthened by technology, which enables research and epidemiological studies, tailored and evidence-based interventions, as well as facilitates efficiency and quality of healthcare delivery. Decision-making and health management can be facilitated through the use of the organization's large database of electronic medical records. Also, the large pool of health records and detailed health related data can serve as a sound base for the development of health interventions, prevention strategies, health management and further research. With integrated reporting systems from the field, disease control management and outbreak alerts can be tailored and provided as a response to specific needs of any region or country. This kind of information can be modified and shared at multiple levels and maximized in its use for health management, response and prevention, thus improving the overall health care delivery and system.

Challenges of the Model

The Emergency Management and Research Institute (EMRI) and the Health Management and Research Institute (HMRI) share many of the same challenges, e.g. the government's ability to validate the data provided by the organizations. The contribution of five percent of the operational costs that have been provided by Mr. Raju is now cancelled due to his imprisonment. This funding was mainly towards the salaries of the top management and it is currently unclear what will happen but it is evident that the leadership of HMRI has been critical for the development and will determine the future of the model. HMRI is a fairly young organization with a set of innovative approaches, with potential for high impact and a broad platform to develop the innovations further. But the model needs to be evaluated and there is a need for remained support from the government in order to make the model robust. The political commitment to build this model after the election of 2009 is still uncertain. The investment costs are high and are unlikely to be covered by any private organization. An assessment, understanding and communication of the potential of the model is needed to strengthen the support in case of e.g. a coalition government.

Management Initiative - Andhra Pradesh Health Sector Reform Programme

Background

In 2006, the Center for Good Governance (CGG), a think tank based in Hyderabad, Andhra Pradesh, reviewed the works of various institutions to identify the gaps in the existing

public health system in the State and to develop a strategy to address these gaps. This Health Sector Strategy was based on extensive review of the following documents: Harvard School of Public Health's Mid-Term Expenditure Framework document, the Reproductive and Child Health-II Policy in Practice, the European Commission Sector Investment Programme background study, the four part Administrative Staff College of India study and the Center for Economic and Social Studies study on Changing Health Care Systems. The Center for Good Governance also conducted discussions with various stakeholders to understand the existing bottlenecks that have been identified in these studies. The issues highlighted in the CGG document (Center for Good Governance, 2006) are:

Service Delivery

- **Issues of Infrastructure and Resources:** There are inadequate number of primary health centers and community health centers in the State, given the size of population. The existing health care units are not functional for the most part, including the First Referral Units (FRUs) that were started with the loans from the World Bank in the early nineties. Added to these, there are gaps in infrastructure, equipment and supplies. The workforce in these units is not sufficient to meet the demand of the people. Inadequate supplies and frequent interruptions in supplies were found at the health facilities at all levels – from the tertiary care institutions to the most peripheral institutions. Laboratory and diagnostic support were considered to be very poorly organized at the district and first referral level. The choice of supplies in public hospitals does not reflect the health needs of the public.

Human Resources Management

- **Issues of motivation:** Most government doctors feel that the money they get paid in the government jobs is not comparable to the private sector, so the majority of them switch to the private sector. Or those who stay do private practice in the evenings, leading to the neglect of the government job. The public health system does not provide doctors with incentives to work in remote and rural areas. The lack of user fees is perceived by the practitioners as leading to low quality response. There is a poor work culture and low motivation in both the executive and ministerial staff in the administrative structure as well as among the professional providers in public health facilities.
- **Issues of training:** Most of the workforce in the public health facilities is not trained and their skills are not upgraded. This leads to very low quality response to health problems. There is a failure to appreciate the links between training and service delivery outcomes. There is very low usage of standard treatment protocols among doctors and staff
- **Issues of Management:** There is not enough attention given to areas such as hospital management information systems, computerization of hospital records and management, patient information and communication. There is a need for the professionalization of management at all program management levels. The

appointed officials need some skills in management, training in public health management and hospital administration.

Governance

- **Organization of leadership at state and district level:** The decision making power is still concentrated with the senior functionaries, without much power devolution to the second and third levels of each of the Directorates and Commissionerates at the state level and their equivalence in ranks. There are no well laid out traditions and rules of collective decision making through meetings in such bodies.
- **Decentralization and the role of Panchayati Raj Institutions³:** There is a need to hand over the management of facilities at district and sub-district level to the Zilla Panchayat, and at mandal (cluster of villages) and village levels to the mandal administration. Such handing needs to go along with administrative staff and with the necessary powers and with no decrease in resources. This process has not been well-formulated or carried out for health functions.
- **Workforce management – promotions and transfers:** Promotions are given very late in the career of doctors, usually at the end of their tenure and the transfers are politically motivated. There is pressures and corruption involved in the transfers. Doctors are transferred to remote areas without any incentives to keep them there. This is harmful to both motivation and morale within the workforce.

Finances

- **Public expenditure:** The public expenditure is seen as being very low to meet the needs of the people. The commitment is usually short term when it needs to be long term.
- **Out-of-pocket expenditure:** Because 73 percent of the expenditure comes out of the pockets of the people, many of them avoid getting health care. There is no social security to meet the costs, both in regards to visible and invisible costs. Bad condition of the public health system and high cost of private care leaves many without any access to health care.
- **Allocation efficiency:** Programs which have high impact on health outcomes need to get the increased budgetary support as compared to programs with high visibility. Expenditures on drugs and supplies need to keep pace with the inflationary price rise of drugs and with the increasing utilization of public health services. The

³ Panchayati Raj is a decentralized form of Government which has constitutional status and which enables each village and district self-governance, responsibility and participation. This system creates the structure of the community governance and political system in India. The Panchayati members are chosen by the community and the elections have seats reserved for Scheduled Castes, Scheduled Tribes and women. The Gram Panchayats are active at village level, focus on the village's social, cultural and economic life, and work with economic development and social justice issues. Every district in the Indian States where the Panchayat Raj system is implemented will have a District or Zilla Panchayats (Wikipedia, 2009).

expansion of facilities, the increase in number of beds and correspondingly the increase in number of staff per facility, should keep pace with growth of population and with increasing utilization.

These are some of the important gaps identified by the Health Sector Strategy document. The document also contains a detailed list of recommendations on how to address these gaps. This seminal document helped the government in formulating the Andhra Pradesh Health Sector Reform Programme strategy and gave direction to its implementation.

Organizational Structure

The Andhra Pradesh Health Sector Reform Programme is guided by the Medium Term Strategy and Expenditure Framework (MTSEF) of the Department of Health, Medical and Family Welfare (DoHMFV). The government and DFID sought help of International Health System's Group at Harvard School of Public Health and developed the Medium Term Strategy and Expenditure Framework (MTSEF). The assignment was divided into two phases – Phase I and II. Phase I was mainly of diagnostic nature and identified the critical areas to focus on for the development of the DoHMFV framework. After Phase I was completed, Phase II was initiated to develop the MTSEF in collaboration with working groups of the DoHMFV and Institute for Health Systems, Hyderabad. MTSEF identified areas that required the support of additional studies and analysis (Department of Health, Medicine and Family Welfare, 2006a).

Given that the National Rural Health Mission (NRHM) is the key health sector reform program of the Government of India implemented in all States including Andhra Pradesh, it was needed to rationalize institutional arrangements of Andhra Pradesh Health Sector Reform Programme within the overall NRHM framework. In Andhra Pradesh, the Head of the Department of the Commissionerate of Family Welfare (CFW) has been designated as the Mission Director of the State Rural Health Mission. Further, NRHM funds have different accounting and reporting requirements compared to budgetary funds (Department of Health, Medicine and Family Welfare, 2006a).

To overcome the existing problems on policy, planning and leadership capacity, the Department of Health, Medicine and Family Welfare created a Strategic Planning and Innovation Unit (SPIU) which is expected to serve as the leadership center for the planning and reform process.

Strategic Planning and Innovation Unit

Attached to the Principal Secretary, the Strategic Planning and Innovation Unit had two broad roles: the first to provide support on policy level reforms and the second to support implementation of reforms across various directorates and commissionerates of the department. Though these roles are not mutually exclusive, the SPIU was required to provide support at two levels, 1) the Secretariat and 2) the Heads of Departments. Therefore, during consultations held in planning for the APHSRP it was decided that the SPIU would have two wings. One wing (SPIU A), work closely with the Principal Secretary on the policy level reforms and provide support through research, analysis, consultations, comparisons

and consensus-building. The second wing (SPIU B), work as the Technical Assistance agency which reports to and assists the Director of Health in implementation of reforms. Further, Efficiency and Planning Units were also conceptualized to provide support for implementation of reforms at the district level (Department of Health, Medicine and Family Welfare, 2006a).

State Program Management Unit

The NRHM also underlined the importance of improving management of health programs and has provided for establishment of a Program Management Unit at State and district levels. The NRHM has also specified institutional a mechanisms for oversight, program management and technical support at various levels. The State Program Management Unit (SPMU) is expected to function under the NRHM Mission Director and provide management support through the lateral infusion of professionals on contract into the respective state health departments. The SPMU will also facilitate convergence with other health directorates/commissionerates and other stakeholders in implementation of the NRHM programs (Department of Health, Medicine and Family Welfare, 2006b).

Goals and Strategy

The goal of the Andhra Pradesh Health Sector Reform Programme is 'to improve the health status of people in Andhra Pradesh, especially the poorest' through 'increased use of quality health services especially by the poorest and in underserved areas' (Department of Health, Medicine and Family Welfare, 2006).

Intermediate Outcomes

- Improved access and quality to health care services
- Improved efficiency in the resource allocation
- Reduced financial burden especially out-of-pocket expenditure and other health related costs for the poor

Ultimate Outcomes

- Improved Health Status to be reflected in:
 - Decreased Infant Mortality Rate from 56 to 30
 - Decreased Maternal Mortality Rate 195 to 100
 - Improved Life Expectancy
 - Decreased Fertility Rates from 2.0 to 1.5
 - Tuberculosis cured rate: 85 percent
 - Prevalence of Leprosy: 0.43/10,000
 - Reduced Malaria Mortality by 60 percent, reduce filarial and micro filarial 80 percent
- Decreased malnutrition levels especially child malnutrition levels
- Reduced financial burden for the poor on health care and create favorable impact on the levels of poverty

Strategies for change

The Center for Good Governance (2006) suggested the Government of Andhra Pradesh to take up the following six strategies for change in the health system:

- Improving the functioning of public health care services and programs
- Strengthening public administration through governance, workforce management and decentralization reform
- Promoting community participation and initiatives
- Enhancing the contribution of private providers to public health and sectoral reform goals
- Developing social security mechanisms to ensure better outreach to vulnerable sections and to achieve better health equity
- Ensuring convergence of all related sectors to ensure better health status of the poor (Center for Good Governance, 2006)

Reform Initiatives of the Program

The following are the new set of initiatives undertaken by Andhra Pradesh Health Sector Reform Programme, to reach the goals set out by NRHM (Government of Andhra Pradesh, 2007):

Improved access to quality and responsive services, especially in underserved areas

- Convergent (health, hygiene, drinking water and nutrition) district plans prepared in (i) 18 districts with focus on underserved areas prepared, (ii) Integrated Tribal Development Agencies (ITDAs).
- Functional review undertaken of ITDA areas.
- Operational plan for integrating HIV/AIDS at all levels agreed and implementation underway. Integration of HIV/AIDS with the TB program.
- Action plan finalized for improved communicable disease surveillance, control systems and program management. Implementation commenced in phased manner.
- Insurance/financial assistance programs for financial protection of the poor assessed. Types of out-of-pocket expenditure identified. Technical assistance to enable improved access of the programs by the poor; support for community mobilization and awareness through information, education and communication materials.
- Baseline established consistent with the National Rural Health Mission/Reproductive and Child Health plans.
- Implementation of norms in underserved areas for access to effective primary and secondary health services which comprises: (i) medical and paramedical staff, (ii) equipment, drugs and medicines and physical infrastructure/facilities. System for tracking developed. Implementation strategy developed.

Strengthened governance and management of the health sector

- Human resource unit established
- Agreed human resource management implementation plan, including for capacity building efforts, developed with identified mentor institutions supported by the

- State Government (particular interest in developing public health and nursing cadre).
- Models for collaboration with private providers in primary and secondary health care established in underserved areas.
 - Progress made as per agreed Fiduciary Risk Assessment Mitigation Plan.
 - Procurement systems improvement plan developed, including for consultancy and institutional support.
 - Integration and rationalization of current reporting systems for different disease control programs. Centrally sponsored health programs including National Rural Health Mission/Reproductive and Child Health and State Government health services.
 - IT enabled, user friendly Health Management Information System established for decision support at the state and district level for collecting and analyzing disaggregated data.
 - Baseline measurement process for the purpose level indicators initiated.
 - Standards of service delivery at facility level were pro-actively disclosed under the Right to Information Act, 2005.

Mechanisms for community participation and systems for accountability

- Guidelines prepared for the constitution of village and mandal health committees specifying their roles and responsibilities.
- Capacity building strategy for strengthening of Health committees for better planning and monitoring finalized.

Strengthened financial management system

- Mid-Term Strategy and Expenditure Framework updated and improved with technical aid; cost disaggregated reform implementation plan available.
- Resources to health sector increase in real terms annually as compared to the baseline.
- The proportion of financial resources to primary and secondary health care maintained, as compared to the baseline.
- Criteria developed for effective targeting of resources to the poorest (including underserved areas).
- IT enabled Financial System Plan drawn up for improved financial management (including addressing under spending) at the State and District levels.
- Training need assessment and training plan to be drawn up for improved financial management.

A list of the milestones set for each year, 2007-2010, can be found in the appendix.

Beneficiaries of the Program

It is intended that the 25 percent of the population (20 million) who do not seek any health care from either the public or private sector, will benefit from the program. Of these people, the program will also directly benefit about 16 million poor and disadvantaged who suffer the greatest burden of ill health, as well as many of whom do not access health care

including rural poor, especially Scheduled Castes and Scheduled Tribes through a focus on underserved areas. The target population for the health sector reform program:

- Rural poor, especially the Scheduled Castes and Scheduled Tribes, through a focus on underserved areas.
- People living in urban slum, through linkages with the DFID-supported Urban Services for the Poor program and other state efforts.
- Other vulnerable groups (weavers, fisher folk, artisans etc.) through equitable and responsive district level planning.

(Government of Andhra Pradesh, 2006)

Chapter 6:

Enabling Factors and Barriers to the Reforms

Enabling factors

Some of the most important determining factors for rooting the reform process are enabling factors of various kinds. Some of the most frequently articulated such components are listed below.

National Support for Reforms

Health sector reforms have received significant political support both at the national and the state level. The National Rural Health Mission (NRHM) unequivocally states that the Central Government will provide leadership to the reform process. The reform process has been aligned with the goals of the NRHM, with increased funding to the health sector, improvement of service delivery, good governance and gradual convergence of all vertical health programs for a unified primary health care system (Ministry of Health and Family Welfare, 2005). The Andhra Pradesh Health Sector Reform Programme (APHSRP) complements the National Reproductive and Child Health-II program which finances essential basic infrastructure, equipment and drugs.

Political Leadership for Reform Process

All political parties that are contesting in the current elections have a stated commitment to poverty reduction and having pro-poor policies, which are in line with the health sector reform process and these leaders have wide political latitude to drive reforms. The government in Andhra Pradesh enjoys a popular support to reforms and is on a sound fiscal footing. Given that Strategic Planning and Innovation Unit (SPIU) and State Program Management Unit (SPMU) exist outside the political process, yet interact with the government bodies at multiple levels. These institutional mechanisms actively engage with the political leadership to mobilize and sustain the political support (Government of Andhra Pradesh, 2007).

Leadership for a multi-sectoral response

Senior leadership in the Departments of Health, Rural, Finance and General Administration remain key drivers of the Andhra Pradesh Health Sector Reform Programme (APHSRP). The collaboration at this level of leadership leads to a multi-sectoral response to public health issues outlined in the health sector strategy. The leadership has been articulated through initiatives for evaluations, risk assessments and ambitious strategy development. It is realized within the government health departments that an increasingly coordinated response is required to meet the challenge of reforms. The Strategic Planning and Innovation Unit (SPIU) and State Program Management Unit (SPMU) were set up to provide support to multi-sectoral coordination and mainstreaming. The APHSRP aim to improve the efficiency and outreach of delivery systems at all levels through involvement of NGO sector and the private sector, as well as develops local solutions for the poor, including public private partnerships.

International Donor Support

Andhra Pradesh has received international donor support for more than a decade and many donors encourage reform processes. The World Bank encouraged private sector involvement and Andhra Pradesh was the first State in India to envisage the role of private sector in assisting the State efforts to achieve the health objectives (Rao, 2003). The Department for International Development (DFID) had worked with Andhra Pradesh for more than a decade and decided to support the major reform initiatives initiated in 2006. DFID and the World Bank have developed a common agenda for support of governance reforms and the support to Andhra Pradesh has been focused on improved governance for health service delivery. DFID committed to three years of support and the common view is that the financial support has been an enabling factor for initiatives within some of the contract arrangements such as HMRI while the support has been most critical for the Strategic Planning and Innovation Unit where functions for monitoring and governance are under development. UNICEF has also been an active supporter and involved in the designing of the Andhra Pradesh Health Sector Reform Programme (Government of Andhra Pradesh, 2006).

Improved integration of initiatives

The Andhra Pradesh Health Sector Reform Programme (APHSRP) actively seeks to strengthen linkages between e.g. National AIDS Control Programme (NACP), Revised National Tuberculosis Control Programme and other health services. Also, the program aims to achieve convergence of interventions with other water supply and sanitation interventions. The State Government looks at where synergies can be developed between the various environmental health-related initiatives and programs to accelerate the achievement of the State's health goals.

Increased emphasis on good governance

The reform process addresses the following aspects related to good governance: redefining the role of the government, accountability, transparency, professionalism in performance and decentralization. Furthermore, the State has enacted the Right to Information Act to encourage accountability and transparency at all levels within the government. Andhra Pradesh is ranked as the fourth least corrupt state out of 20 States in India on petty corruption in public services, according to the Transparency International, India-Centre for Media Studies study 2005. This, in combination with articulated ambition by the State Government to further improve the governance, has been an enabling factor for engagement by international partners. The State's strategy to tackle corruption includes revamping internal vigilance in the health department, as well as effective implementation of Right to Information Act and Citizens Charters (Department of Health, Medical and Family Welfare, 2007b).

Develop capacity to deal with reforms

To increase the capacity of the stakeholders, mainly those who will implement the reforms, such as the medical staff and the department staff, the State Government has sought help from premier institutes in the state. Among them is the Indian Institute of Public Health (IIPH), which provides scholarly as well as public health perspective on health issues and

provides capacity building to the stakeholders through public health related training. Also, the Administrative Staff College of India (ASCI), a nationally renowned training institute for medical professionals, is providing health administration training to doctor and administrative staff to strengthen the health information systems. Family Health International (FHI) is providing technical assistance to the reform process and is actively engaged in promoting the reforms. International Health Systems Program at Harvard School of Public Health is providing an international perspective on the direction of the health sector reforms. Price Waterhouse Cooper has provided a plan for the human resource management. There has been a strong focus on capacity building within the departments of the government to handle the reforms process efficiently.

Commitment to improved involvement of community

Focused group discussions, workshops and interviews have been held with the private health sector, professional medical and paramedical associations, government staff service associations and civil society in the following priority areas: Issues affecting health service delivery, the role of the private sector in service delivery, resource allocation and its links to positive health outcomes, monitoring and evaluation, fiduciary risk assessment, procurement and mitigation measures such as decentralization, accountability, community participation. Further priority areas have been on strategies to reach the poorest, models for social insurance, human resource management and capacity building. All these activities have led to better involvement of the community in the decision making process and give a sense of ownership of the program among various stakeholders. Many of the activities are aimed at the community and involve various NGOs and Community Based Organizations in the implementations of the reforms.

Commitment to improved involvement of the private sector

Some of the most innovative models that have come out of the reform process so far are the public private partnerships in which the private sector has played a key role in supporting the reforms and making health care accessible to the poor. Emergency Management and Research Institute (EMRI) and Health Management and Research Institute (HMRI) are public private partnership models where a private sector organization is implementing the program. Aarogyasri, a state-wide health insurance scheme for the people below the poverty line, uses the partnership model to include private hospitals in health service provision and thereby extending the reach of the health care as well as making it affordable to the poor. The Urban Slums Project uses the NGO base in the slums in urban areas to reach the unreachable and provide health care to the needed. These are key examples of how the potential of the private sector has been leveraged through the reform process in helping the poor. These are successful innovative models that are multi-sectoral in nature and there is a strong preference shown by the State Government to work with the private sector in implementing health sector reforms.

Barriers to reforms

Among the determining factors for the reform process are the challenges which still stand in the way for either further planning, development of strategies and/or implementation efforts. Some of these expressed barriers are listed below.

Remained commitment by the Government

There is a possibility that the attention of political leaders and senior bureaucrats can wane, leading to loss of momentum of the reform process.

Response: The Government of Andhra Pradesh has a stated policy commitment to address rural poverty and to improve basic services for the poor. In addition, a multi-sectoral task force reviews the progress against the set milestones and media coverage helps keeping the commitment in the daylight.

Commitment and capacity for effective use of financial resources

There is a risk that the State Government may not commit increased resources to the health sector as planned. Moreover, the government may be unable to effectively use newly available resources. The department already exhibits under-performance in spending, which could be due to poor planning and monitoring of health expenditure, as well as the bureaucratic processes for spending approval.

Response: This risk is partly mitigated by the Mid-Term Strategy and Expenditure Framework (MTSEF), which includes a substantial planned increase in financial resources to the health sector. DFID technical support aims to strengthen the financial systems and develop an integrated information system for budget management.

Lack of capacity for implementation of the reforms

There is a risk that the Government of Andhra Pradesh may not be able to build adequate implementation capacity for reforms.

Response: The DFID supported Andhra Pradesh Health Sector Reform Programme, has set up the Strategic Planning and Innovation Unit (SPIU) A and B to drive managerial functions. The SPIU A supports the government in implementing human resource management reforms, organizational development processes, provides incentives to improve service delivery in the underserved areas and has a fair and non-discriminatory transfer and postings policy in place. By implementing these measures the possibility of resistance by employees will be mitigated. Technical support through SPIU B helps strengthen the capacity within the various directorates within the Department of Health, Medicine and Family Welfare, to plan and implement integrated programs at the state and district level and below (Department of Health, Medicine and Family Welfare, 2006).

Insufficient attention to equity and gender

There is a risk that the services for the poor may not reach them as planned and the underserved population might not reap the benefits of the reforms, especially women and children.

Response: The measures undertaken to address this barrier include the renewed focus and goals on reaching underserved populations and areas, providing incentives to staff to serve in remote areas, using participatory planning and providing untied funds at district and lower levels.

Fiduciary Risk Assessment

The financial management in many departments is weak and expenditures are not sufficiently traced. This brings fiduciary risk which is further enhanced by the lack of impact assessments; resources may not be effectively allocated for the intended benefits. One example is how the government has been criticized for not assessing the impact from the contract arrangements with private providers to which significant resources from donors as well as tax payers have been provided.

Response: To address this, the government has stated that all funds are subjected to external audit. There are several initiatives for improved accountability such as the State Financial Accountability Assessment (SFAA) reforms and processes for common financial procedures in all societies. The Department of Finance is also actively working to strengthen the capacity for internal audit within the health department. The risk of suboptimal allocation of resources is supposed to be addressed by impact evaluations while HMRI, EMRI and Aarogyasri health insurance scheme are still not being evaluated and cost-effectiveness is unclear.

Negative attitudes among stakeholders towards reforms

Reforms are often associated with privatization which by many is assumed to threaten public sector positions and increase costs of services. The connotation puts a negative touch to the phenomenon of reforms as well as affects people's perception of the same. Based on the assumption of privatization, and based on a lack of a complete understanding of the underlying philosophy of the reforms, trade unions and staff associations can also be seen as a barrier to the reform process.

Response: An external communication strategy has been developed to collaborate with the public and the media to address this issue.

Chapter 7: Gaps and Opportunities

The Andhra Pradesh health sector reforms have started out with ambitious goals to transform the health system so that the State can reach the health MDGs by 2012. The following are the gaps in the reform process as they are currently being implemented. Many programs and initiatives have been undertaken by the State Government to address the existing gaps in the health system.

Donor support coming to an end

Reforming a health system is a time-consuming process and cannot be achieved over a short span of three years as envisaged by the Andhra Pradesh Health Sector Reform Programme (APHSRP). There is a need for a change in the mindset of the public workers, the private sector, the political leadership and many other stakeholders for the reform process to sustain and become institutionalized in a way that can have long-term impact. While the APHSRP has taken the right direction and has undertaken initial efforts, there needs to be a sustained effort to keep the process in the right direction. The funds from DFID, nearly USD 60 million over a three year period, are marginal to the entire budget of the health department of Andhra Pradesh, which for the same three years adds up to nearly USD 1.54 billion. Therefore, the issue is not so much about how much money the government needs in terms of continuing the reforms as much as technical support, mainly to the Strategic Planning and Innovation Unit (SPIU) and its functions for improved management, monitoring and implementation initiatives. These functions are still under development while the funding and technical support from DFID is coming to an end. It is unclear if the Government will have the capacity to institutionalize these functions, whether continued technical assistance is needed or if the Government would benefit from an independent body to manage some of the functions.

To address the gap

- ✓ The role and effectiveness of the Andhra Pradesh Health Sector Reform Programme (APHSRP), including the Strategic Planning and Innovation Unit (SPIU), should be reviewed. The assessment should address what functions the government preferably should manage, for what activities there is a need for continued technical assistance and what functions might be better managed by an independent entity to support the government.

Internal and External Communication

In terms of internal communication, there is a general feeling of confusion about what the health sector reform in Andhra Pradesh really is. It is evident that there are many innovative and large scale initiatives within the State, benefitting the poor and that there is a political commitment to health care. But people working with the health sector reforms found it difficult to articulate what the reform is. This was furthermore highlighted by the former Principle Secretary PK Agarwal who confirmed there are many people working on health

sector reform projects, who are unaware of the underlying philosophy of the reform. He further explained that this has not been considered an issue as long as the key decision makers are aware and onboard. It is, however, essential to recognize the importance of broad support, rooted at various levels within the organization, in times of change which the election of 2009 will bring about, irrespective of election results. The sustainability of the initiatives is dependent on support within DoHMF and this support is likely to be more articulated and stronger if the overall philosophy is communicated.

Public support is crucial for the survival of reform initiatives. This is evident with the Aarogyasri Community Health Insurance Scheme which became a much debated initiative in the election of 2009. The government had been successful in building awareness of the scheme and there was strong support in the rural areas. But within this context, there have also been challenges in the communication with the public. The innovative approaches with major contract arrangements have been criticized for lack of transparency in the creation and management of the contractual agreements of all these three major initiatives: Aarogyasri, EMRI and HMRI. An Evaluation Report on EMRI by the National Rural Health Mission stated there is no “contracts management cell” in the state government. There is uncertainty regarding the government’s ability to manage contracts. This study has not evaluated if this is the case, but it is evident that the government has not gained complete trust by the public which reflects an existing gap in external communication for transparency. There is a lack of independent policy research to 1) strengthen accountability and to communicate to the public and 2) to provide recommendations to the involved policy makers.

To Address the Gap

- ✓ Ensure that a unit, such as the Strategic Planning and Innovation Unit (SPIU), manages internal communications including feedback on reform initiatives from cross-sectoral departments.
- ✓ To minimize suspicion among the public and to improve sustainability and progress of the health sector reform process, the external communication need to be strengthened and altered. An independent party could improve the communication, if involved for monitoring and evaluations, which in turn would build trust in the reforms, its components and activities. Transparency in the creation and management of contracts are key components in this particular area.

Health Information Systems

The reform initiatives with contract arrangements such as HMRI and EMRI have led to a tremendous amount of new data. The data includes information about where, when and what type of emergency care that is needed in the state; suicide rates have proven high in the western part while hypertension is more common in the eastern part. The organizations analyze much of the data for the benefit of the government. A problem is that the government has not the capacity to validate the information provided to them while it directly impacts policy decisions. The same thing goes for Aarogyasri Health Insurance Scheme, where there is now new data on the performance by private health care providers and this information can create new tools for the government to monitor the quality of the

care in the State. The problem is the lack of personnel with ability to analyze the data and most importantly operational managers to act on the information provided.

The importance of data for the health sector reform process in Andhra Pradesh is evident. The initiatives in management as well as service delivery have changed the situation of health care in the State but the government has no robust health information system to effectively measure the outcomes of the initiatives. The information system could help in planning the future course of action and also contribute to transparency, accountability and good governance, the elements that are essential for success of the reform process.

Interviews with concerned key officials revealed that the health information systems in Andhra Pradesh are very weak. There is a great deal of skepticism among the government and non-government bodies on the reliability of health information systems in the State. They believe that the information is not indicative of the real situation. While there is strict adherence of timelines for the information flows from the peripheral institutions to the districts and from there to the head office, there is considerable delay in reporting of some important data. For instance, the reporting of communicable disease report in 2006-07 indicates that only about 33 percent of the facilities out of 227 shared monthly reports. About a quarter of the facilities have one to three months of reporting pending. District hospitals had an average of five months of pending time, followed by specialty hospitals and dispensaries with four months (Center for Good Governance, 2008). While a few initiatives have been undertaken by the government, the respondents felt that the process of reform is a long term process and requires sustained efforts to reach the goals.

Currently, in the reform process, there has been effort by the government to address this problem. The National Institute for Smart Governance has been working on this issue as part of the reform initiatives. Yet there are gaps and there is a need for more advanced support in information management.

For instance, while information is being collected not all the information is analyzed. Also, there is more stress on information collection and reporting while the sharing of analytical reports and feedback has taken a back seat. Added to this, there is no explicit Information and Communication Technology (ICT) policy for the entire health department, whereas the ICT initiatives have not really started in the department. There is a lack in capacity building and training of health information management specialists and workers (Center for Good Governance, 2008). There are also weak linkages between the information management and the operations management to create interventions based on findings from the available information.

A few of the reasons for the present condition may be due to lack of adequately qualified and skilled staff, lack of well-defined health information criteria, lack of proper understanding of roles by the staff involved in information management, lack of well-defined procedures and training and lack of appropriate technology usage.

To Address the Gap

The Andhra Pradesh Health Sector Reform Programme, with support from DFID, has initiated work to formulate a policy on Information and Communication Technology usage, training of the staff etc. There is however a risk that the activities will lose momentum once the DFID support runs out in 2010. There is a need for support of the following activities:

- ✓ Develop a clear understanding for all the personnel involved at different levels about the role, benefits and various functions of health information and their own role in its management.
- ✓ Have periodic training and exposure to appropriate technology use.
- ✓ Lend support in developing well-defined job charts to specify the functional responsibilities and articulate specific lines of control.
- ✓ Develop clear distinction as to the functions, responsibilities, authorities and accountabilities of the official stakeholders.
- ✓ Address software and hardware issues, complex technical problems, data standards, data archiving and training of health information specialists.
- ✓ Support capacity building to strengthen the government's ability to validate the data gathered from various initiatives, to provide policy makers with accurate information.
- ✓ Encourage knowledge transfer and communication of findings to the same extent as data collection and management, to increase the number of evidence-based initiatives and activities.

Health Financing

The political leadership in the State has translated into substantial increase in the outlays for health in recent years, exceeding the expectations of the Mid-Term Strategy and Expenditure Framework. The health budget for the health department has increased from 347 million USD in 2005-2006 to approximately 834 million USD in 2008-2009, partly due to the infusion of National Rural Health Mission and DFID funds but the main increase is found in State Government funding.

Funds from NRHM have not been significant in relation to the overall health care budget of Andhra Pradesh and represent less than 5 percent, though it has been the main source for the new initiatives of EMRI and HMRI. The total budget of NRHM is more than USD 2.6 billion while there is a stated goal of reaching 3 percent of the GDP which equals more than USD 12 billion. Andhra Pradesh is not one of the prioritized states of NRHM while given that the allocation to NRHM is likely to increase and it is a challenge to effectively spend the resources, one can expect the current funding from NRHM to sustain and potentially increase. It is, however, unclear how these funds are to be allocated in Andhra Pradesh. NRHM has not agreed to provide resources to the Aarogyasri Community Health Insurance Scheme because it is not considered to target the focus areas of NRHM. EMRI received significant funding from NRHM and has, aligned with NRHM's goals, provided services to reduce infant and maternal mortality. NRHM has now indicated that the funding to EMRI is likely to be reduced with the motivation that the services are not exclusively for poor. It is hence yet to be seen how the new initiatives of EMRI and HMRI are to be funded in the

coming years. It does not seem to be a lack of resources but rather a challenge to motivate the allocation of the resources. This is further challenged by the perceived lack of accountability and transparency in the financial management of the new initiatives.

There has been a consistent under-spending in the health department. One reason is the excessive controls in the finance department that leads to late release of funds. The other reason for under-spending is due to the lack of planning and monitoring of expenditure by the health department. The capacity to track expenditure within the government is also weak. This is mainly due to the fact that the budget systems at district level and below are very complex and have a variety of fund flowing mechanisms. The monitoring of finances is not given a high priority in the planning process. The health department staff lack competency in financial functions and have received little financial training.

There are multiple interventions and programs started in the Andhra Pradesh Health Sector Reform Programme that try to address gaps in the financial structure, including the establishment of a Financial Management Unit (FMU) in the health department led by a Financial Advisor for overall supervision and financial management of the State. But there have not been systematic evaluations of the major interventions undertaken as a part of the reforms. Cost-benefit analysis of the initiatives is lacking despite substantial investments. With scant focus on the analysis of finances and the cost of outcomes, the reform process is bound to repeat mistakes and underutilize financial resources. This issue takes a sense of urgency given the timeframe of the DFID support, which runs out by mid-2010.

To Address the Gap

- ✓ The perceived lack of accountability and transparency in the financial management of the new initiatives of EMRI, HMRI and Aarogyasri Health Insurance Scheme can be addressed through capacity building for contract definition and writing, negotiation, management and monitoring. It is also important to advance the transparency to build public trust. There is an opportunity to gather the key people within the government of Andhra Pradesh and other states for a coordinated capacity building and to potentially effect the motivation of allocation of resources.
- ✓ There is a risk that the Financial Management Unit may under-perform due to a lack of consistent support after the DFID technical assistance runs out. Furthermore, the unit needs support in developing standards of financial management for all societies and autonomous bodies. It requires assistance in capacity building of financial officers, at all levels, with a special focus on internal audit. While a few of these initiatives have been undertaken, the support is needed for the initiatives to continue.
- ✓ There is a need for training and capacity building to improve the quality of budget execution and to improve the accuracy by right classification of budget. The health department has set up a Financial Information Management System (FIMS) to provide comprehensive information on all fund flows in the department. But this

system is still in inception stage and will take time to start function to its fullest capacity. There needs to be continued assistance in form of assistance to FIMS.

- ✓ To reduce under-spending, the health department needs rigorous monitoring and reporting of expenditures at all levels. The department needs help in developing an integrated financial information system for better budget management including that of funds flowing from the Government of India. As the systems for internal audit within the health department are weak, assistance can be provided to strengthen internal audit capacity within the department.
- ✓ Support can also be provided to increase the capacity within the government to track expenditure within the government and there is a need for support to analyze the effectiveness of the initiatives.

Procurement

The systems for decentralized procurement at the district level are not well-defined. At centralized procurement level there is an absence of a clear audit trail, weak management information system, high staff turnover and low staff capacity. As internal control, staff capacity, documentation and financial management practices at the health department are not in tune with international best practices, this is an area for significant improvement.

These issues are being addressed by the State and plans have been approved to recruit specialists in internal audit, drug purchase and procurement management. DFID is providing Technical Assistance to strengthen the human resource capacity for procurement, yet the DFID funds are going to run out by March 2010. The plans of putting together a procurement reform plan, enacting a Procurement Law for standardizing procurement processes and establishing a regulatory authority have been delayed due to bureaucracy.

There is a claimed lack of resources for procurement of drugs and supplies which is likely to be a misperception, given the above stated inefficiencies and managerial issues related to procurement. Other states, e.g. Tamil Nadu, have been successful in improving the procurement and distribution of drugs and supplies. Expenditure of drugs and supplies were reduced by 40 percent in 15 months time in Tamil Nadu when a transparent procurement system was implemented. Andhra Pradesh has not been able to introduce such a system and could learn from the process in this neighboring State.

To Address the Gap

There is a need for support in the following areas related to procurement:

- ✓ Improve the management of procurement processes by developing standard bidding documents, procurement manuals and streamlining contract award procedures in accordance with international best practices.
- ✓ Standardize procurement procedures and establishing a central regulatory authority.
- ✓ Put drug information in the public domain.
- ✓ Create effective mechanisms for grievance reporting and have representation of the suppliers in the decision-making process.

- ✓ Recruitment of core technical personnel on full-time basis for drug procurement.

Human Resource Management

Human Resource Management is a key area for reform under the Andhra Pradesh Health Sector Reform Programme (APHSRP). The department is human resource intensive while at the same time, the human resource department has limited information about the roles of the personnel. Current functions of the human resource department are mainly administrative. Legal compliance, disciplinary actions, maintaining records and implementation of government rules and regulations represent most of the department's work. There is a lack of focus on activities to develop the employees with training, incentive-creation and there is no structured orientation program for people before taking on new roles. There is a need to adopt performance management systems to motivate and empower the employees (Price Waterhouse Coopers, 2008e).

It has also been highlighted that there are insufficient management of postings, transfers and promotions and that there is a need to improve working conditions.

In relation to information system on human resources, detailed information on the health workforce at different organizational levels is mostly unavailable. There is a lack of information about the workforce and on the status of manpower at various service delivery units. The State health department has more than 400 designations under its umbrella and there is no consolidated database of the cadres. Furthermore, many of the designations are obsolete (Price Waterhouse Coopers, 2008e).

To Address the Gap

- ✓ There is a need to improve the performance management and create guidelines for promotions based on performance and not solely seniority in order to encourage the employees.
- ✓ Improve human resource management through benchmarking and best practices.
- ✓ Work closely with human resource experts and consultants for further improving the related functions. Also build capacity of internal employees for taking up advanced human resource roles.
- ✓ There is a need for a training policy which can set direction for effective training delivery in the health department of the State. It has to be a regular capacity building feature wherein a regular process identifies the training needs to develop a proper training plan and implement the training as per the plan for all categories of people. Further, there is a need to link developmental needs, progression of employees and refreshing the employee's skills with the training (Price Waterhouse Coopers, 2008e).

Leadership and Governance

A governance related gap has to do with the creation and management of contracts. There is a perception among private providers and the public, also communicated in media, that there are issues with transparency in contracts managed by the government. The sustainability of the public private partnerships is dependent on good governance and there is a need to address these issues. This study has not assessed the capacity within the

government to create and manage contracts with private entities but many private providers have stated that the main challenge with working with the government is corruption. This needs to be addressed in order to secure support from the people as well as the current and anticipated private partners for the reform process.

It can be further argued that independent monitoring and evaluation is needed to bring effectiveness and transparency to the overall reform process. If there is more accountability of the spending, and the cost-effectiveness of the initiatives would be assessed, the trust in the communities would potentially be strengthened.

In terms of management, the State health department has a fragmented structure with several sub-departments managed by the Secretariat. The organizational structures are mostly hierarchical, with limited horizontal communication and reporting. This hinders a team approach which is important for implementation of many of the initiatives of the reform. Internal organization of the sub-departments and the health department as a whole is such that key functions such as planning, monitoring, quality assurance, legal and human resource management are perceived to exist mainly on paper with little real work done.

The Strategic Planning and Innovation Unit (SPIU) was established to drive some of the key reform initiatives and managerial functions. Among its tasks is to support the policy reforms and support implementation of reforms across various sub-departments under the health department (Government of Andhra Pradesh, 2006c). The establishment of SPIU has taken more time than envisaged. The unit is still in its inception stage and is dealing with multiple initiatives to support and smoothen the reform process. The main source of funding for the set up of the unit has been provided by DFID and has been supported by various entities interested in the reform process, e.g. the technical assistance provided by Family Health International. Once the DFID funds run out, there is a risk that the needed technical support for SPIU will falter, leading to set backs on various fronts for which SPIU was created in the first place. Since institutionalizing of the unit is incomplete and DFID support coming to an end in 2010, SPIU's role and the continuation of its support to the reform process is uncertain.

The major reform initiatives with contract arrangements have resulted in mind blowing scale-up of services with thousands of people below poverty line accessing high-quality care for surgeries, all free of cost to the patient, an emergency response system reaching remote areas and mobile vans providing primary care to thousands of people every day. The reform is noticeable in remote villages where the support for the initiatives is strong. The key to these major initiatives are political commitment from the very top but also strong leadership and professional management for each one of the initiatives. EMRI and HMRI have developed advanced performance measurement schemes and clearly defined role descriptions for every employee which is yet to be seen in the public sector. The main challenges as of today are that the five percent funding for these organizations have been cancelled. The government could easily cover the entire cost of the initiatives but can not motivate the salaries of the top management and it is unclear how these initiatives would survive if they are taken over by the government. The reasoning within these two

organizations is that it is not ideal to have the government cover 100 percent of the costs, in regards to autonomy and decision-making.

To Address the Gap

- ✓ The perceived gap with lack of transparency in the creation and management of contracts can be addressed through capacity building for contract management, through training of the managers, and a third party could play an active role with this task. Potentially designate an independent entity to work together with the Strategic Planning and Innovation Unit's (SPIU) to monitor contracts and facilitate the public private partnerships.
- ✓ Evaluate of the Strategic Planning and Innovation Unit's (SPIU) existing needs and assess what kind of support that is needed when going forward.
- ✓ Potentially provide financial and/or technical support to SPIU for implementation management, as well as for coordination of the departments, partners and the private sector. Either strengthening the in-house capacity with technical assistance to the unit, for continued support of the reform process including development and monitoring of major policies.
- ✓ Assign an independent entity to continuously conduct impact assessments, as well as monitor and evaluate the reform process and provide policy support to the government and to ensure effective allocation of resources. This could potentially improve the overall transparency of the reform process and help the government to build trust in the communities.

Concluding Comments

It is evident that innovative steps have been taken to shape the future health status of the population in Andhra Pradesh. The recent health care initiatives reflect positive changes in the mindset of both government officials and private health care providers, yet the reforms need sustained commitment to succeed and reach its targets. In conclusion, the health sector reform process needs time. It needs time to get all stakeholders wholeheartedly on board and to institutionalize the routines, attitudes and activities, as well as to gain the trust among people in the community.

External involvement in the process can be a critical factor for improved accountability and transparency, as well as for cross-learning within the Government of Andhra Pradesh but also internationally. Technical assistance could play an important role to support the enabling environment and the initiated innovative approaches, hence be essential in the transformation of the initiatives bringing them from pilots to well-anchored programs. Independent monitoring might be the determining factors to strengthen the awareness and trust in this health sector reform process. Though there are numerous impressive and innovative components and initiatives of this reform process, there are some important remaining gaps, whereas impact assessments and evaluations are essential to create a better picture of what works and what does not.

This report brings forward the health sector reforms in Andhra Pradesh to spur the discussion of health sector reforms as a phenomenon. Other governments can, and should, learn from the extensive and innovative approaches and change of mindset, while the government of Andhra Pradesh would benefit from improved access to information regarding related policy reforms and their affects in other countries.

Bibliography

- Berman, P. (1995) Health Sector Reform: Making Health Development Sustainable. In Peter Berman, ed. *Health Sector Reform in Developing Countries: Making Health Development Sustainable*. Boston: Harvard University Press (13-33).
- Berman, P.A. & Bossert, T.J., (2000) A Decade of Health Sector Reform in Developing Countries: What Have We Learned? Paper presented at Data for Decision Making Symposium, Washington: DC
- Center for Good Governance (2006) *Andhra Pradesh Health Sector Reform Strategy: A Reform Agenda*, Hyderabad, India.
- Center for Good Governance (2008) *Assessment of Health Information Gaps Collection, Reporting and Review Mechanisms*, Hyderabad, India.
- Department of Health, Medical and Family Welfare (2006) *Andhra Pradesh Health Sector Strategy: A Reform Agenda*, Government of Andhra Pradesh, India.
- Department of Health, Medical and Family Welfare (2007a) *Andhra Pradesh Health Sector Reforms Program 2007-08 to 2009-10*, Government of Andhra Pradesh, India.
- Department of Health, Medical and Family Welfare (2007b) *Fiduciary Risk Assessment* Government of Andhra Pradesh, India.
- Department of Health, Medicine and Family Welfare (2006a). *Strategy and Performance Innovation Unit: Terms of Reference*, Government of Andhra Pradesh, India.
- Department of Health, Medicine and Family Welfare (2006b). *Strategic Program Management Unit: Terms of Reference*, Government of Andhra Pradesh, India.
- Department of Health, Medicine and Family Welfare (2009). *Study of Emergency Response Services – EMRI model*, Government of Andhra Pradesh, India.
- Family Health International (2008) *Technical Support to Andhra Pradesh Health Reforms Programme*.
- George C.K and Pattnaik G.S. (2004) *State Health Accounts for Andhra Pradesh, 2001-02*, Institute of Health Systems, Hyderabad,
- Government of Andhra Pradesh (2006a) *Andhra Pradesh Health Sector Reform Programme*. Andhra Pradesh, India.
- Government of Andhra Pradesh (2006b) *Programme memorandum: Andhra Pradesh Health Sector Reform Programme*, Andhra Pradesh, India.
- Government of Andhra Pradesh (2007a) *Inception Mission for APHSRP*, Government of Andhra Pradesh, India.
- Government of Andhra Pradesh (2007b). *Inception Mission for APHSRP*.
- Government of India (1992) *Eight Five-Year Plan 1992-1997. Vol 2. Social Sector* [Online] Planning Commission, Government of India. Available at: <http://planningcommission.nic.in/plans/planrel/fiveyr/8th/default.htm>
- Government of India (1997) *Ninth Five-Year Plan 1997-2002. Vol 2. Social Sector* [Online] Planning Commission, Government of India. Available at: <http://planningcommission.nic.in/plans/planrel/fiveyr/9th/default.htm>
- Government of India (2002) *Tenth Five-Year Plan 2002-2007. Vol 2. Social Sector* [Online] Planning Commission, Government of India. Available at: <http://planningcommission.nic.in/plans/planrel/fiveyr/10th/default.htm>
- Government of India (2007) *Eleventh Five-Year Plan 2007-2012. Vol 2. Social Sector* [Online] Planning Commission, Government of India. Available at: <http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11default.htm>

- Institute of Health Systems (1996) *Andhra Pradesh Health Institutions Database (APHIDB): Private and Public. A Technical Note*, Institute of Health Systems, Hyderabad. Working Paper No XI (1-27)
- Institute of Health Systems (2006) *Medium Term Expenditure Framework for Health in Andhra Pradesh 2006-2011*. Hyderabad, India.
- Institute of Health Systems (2008) *AP Health Sector Reform Program Monitoring & Evaluation Framework*. Hyderabad, India.
- Mahapatra, P. (2002) *Structure and Dynamics of Private Health Sector*, Institute of Health Systems, Hyderabad.
- Mills, A., S. Bennett, and S. Russell (2001) *The Challenge of Health Sector Reform: What Must Governments Do?* Oxford: McMillan Press
- Ministry of Health and Family Welfare (2005a) *NRHM Framework*, Government of India, India. Available at: <http://mohfw.nic.in/NRHM/Documents/NRHM%20Framework%20for%20Implementation.pdf> [Accessed on March 5, 2009]
- Ministry of Health and Family Welfare (2005b) Report of the National Commission on Macroeconomics and Health, Vol I, Government of India, India. Available at: <http://www.who.int/macrohealth/action/Report%20of%20the%20National%20Commission.pdf> [Accessed on March 20, 2009]
- Ministry of Health and Family Welfare (2007) *Health Sector Reforms in India Initiatives from States Volume-II*, Government of India, India.
- Mooij, J. (2003) *Smart Governance? Politics in the Policy Process in Andhra Pradesh*, India Overseas Development Institute: London. Working Paper: 228
- NACO (2007) *HIV Sentinel Surveillance and HIV Estimation in India 2007 A Technical Brief* Government of India, India.
- Narayana, K. V. (2003) *Changing Health Care System*, Economic and Political Weekly, Vol 38, Nos 12-13, 2003, pg 1230-1241.
- National Health Accounts India 2001-02, Ministry of Health and Family Welfare, Government of India, 2006
- Price Waterhouse Coopers (2008a) *Compilation of best practices on Incentive measures for Rural / Difficult area medical practitioners*, Hyderabad, India.
- Price Water House Coopers (2008b) *Formation of HR Unit*. Hyderabad, India.
- Price Water House Coopers (2008c) *Health Sector Reform – Abstract*, Hyderabad, India.
- Price Water House Coopers (2008d) *Human Resource Management Support*, Hyderabad, India.
- Price Waterhouse Coopers (2008e) *Organizational Reorientation and Restructuring -Note on Trifurcation of DoHMFw*. Hyderabad, India.
- Price Waterhouse Coopers (2008f) *Review of Service Delivery Units and Performance Measurement*, Hyderabad, India.
- Rao, V. (2003) *Update and Assessment of Government –Private Collaborations in Health Sector*, Administrative Staff College of India, Working Paper.
- Strategy and Performance Innovation Unit (2008) *Assessment of Health Information Gaps Collection, Reporting and Review Mechanisms*, Government of Andhra Pradesh, India.
- Wikipedia (2009) Available at: <http://en.wikipedia.org/wiki/Panchayat> [Accessed on May 16, 2009]

Appendix I

A brief description of each organization under the Department of Health, Medicine and Family Welfare

Andhra Pradesh Health, Medical and Housing Infrastructure Development Corporation (APMHIDC): The main aim of APMHIDC, is to focus on providing accommodation for the medical and paramedical staff in the State and to construct health service delivery units such as primary health centers, dispensaries, hospitals, clinics and other healthcare facilities. It also deals with the acquisition of medical equipment and other infrastructure facilities for the provision of Family Welfare and Health care facilities. The procurement, storage and distribution of drugs and other medical supplies in the State for DoHMFWD also fall under its supervision. Provision of physical infrastructure for the medical institutions and building quarters for the staff in the health department, particularly in the rural and semi urban areas, is also a main part of the corporation's activities.

Andhra Pradesh State AIDS Control Society (APSACS): This is the State Government's response to the National AIDS Control Program that provides technical support to the government and NGOs to prevent the spread of HIV infection and reduce morbidity and mortality associated with HIV/AIDS infection.

Andhra Pradesh Vaidya Vidhana Parishad (APVVP): Formed in 1986, APVVP is in charge of running of medical facilities at district and (cluster of villages) level, and is focused on hospital-based curative care and on a few preventive services.

Ayurveda, Yoga, Unani, Siddha & Homoeopathy (AYUSH): This society focuses on non-allopathic care to the people of the State by providing medical relief through traditional Indian systems of medicine and homeopathy. The aim is to ensure proper development and evaluation of the ancient systems of medicine such as Ayurveda, Unani and also Homeopathy. The society is involved with opening Colleges, Research Centers, Hospitals and Dispensaries and Herbal Gardens to promote alternative medicine.

Commissionerate of Family Welfare (CFW): Its focus is primarily on the schemes formulated by the Central and the State Government that deal with family welfare, child survival and safe motherhood projects and programs. These programs are mainly implemented at the district and sub-district level and the services are mainly focused on the preventive and promotive care.

Directorate of Health Services (DHS): The main aim is to enforce the Registration of Births and Deaths Act, 1969, throughout the State and control epidemics and endemic diseases.

Directorate of Insurance Medical Services (DIMS): It functions under the Ministry of Labor in Andhra Pradesh and receives technical support from the health department. The main

responsibility of this directorate is to supervise and run the administration of Employee's State Insurance hospitals and dispensaries.

Directorate of Medical Education (DME): Works on the regulation of medical education and administration of the teaching hospitals and specialty hospitals attached to the medical colleges in Andhra Pradesh. It also provides medical care to the people through these college hospitals as part of medical education to undergraduates. Also, it provides training in paramedical courses, such as Nursing and Sanitary Inspectors, through medical colleges and teaching hospitals.

Drug Control Authority (DCA): Controlling the quality of drugs manufactured and sold in Andhra Pradesh is done by this department. It ensures that the drugs are manufactured and sold in accordance with the conditions of the licenses issued by the government. The department also ensures that the drugs are sold at reasonable prices fixed by the Government. Moreover, it also aims to control and prevent misleading and objectionable advertisements in respect of use of drugs for certain ailments, diseases and disorders.

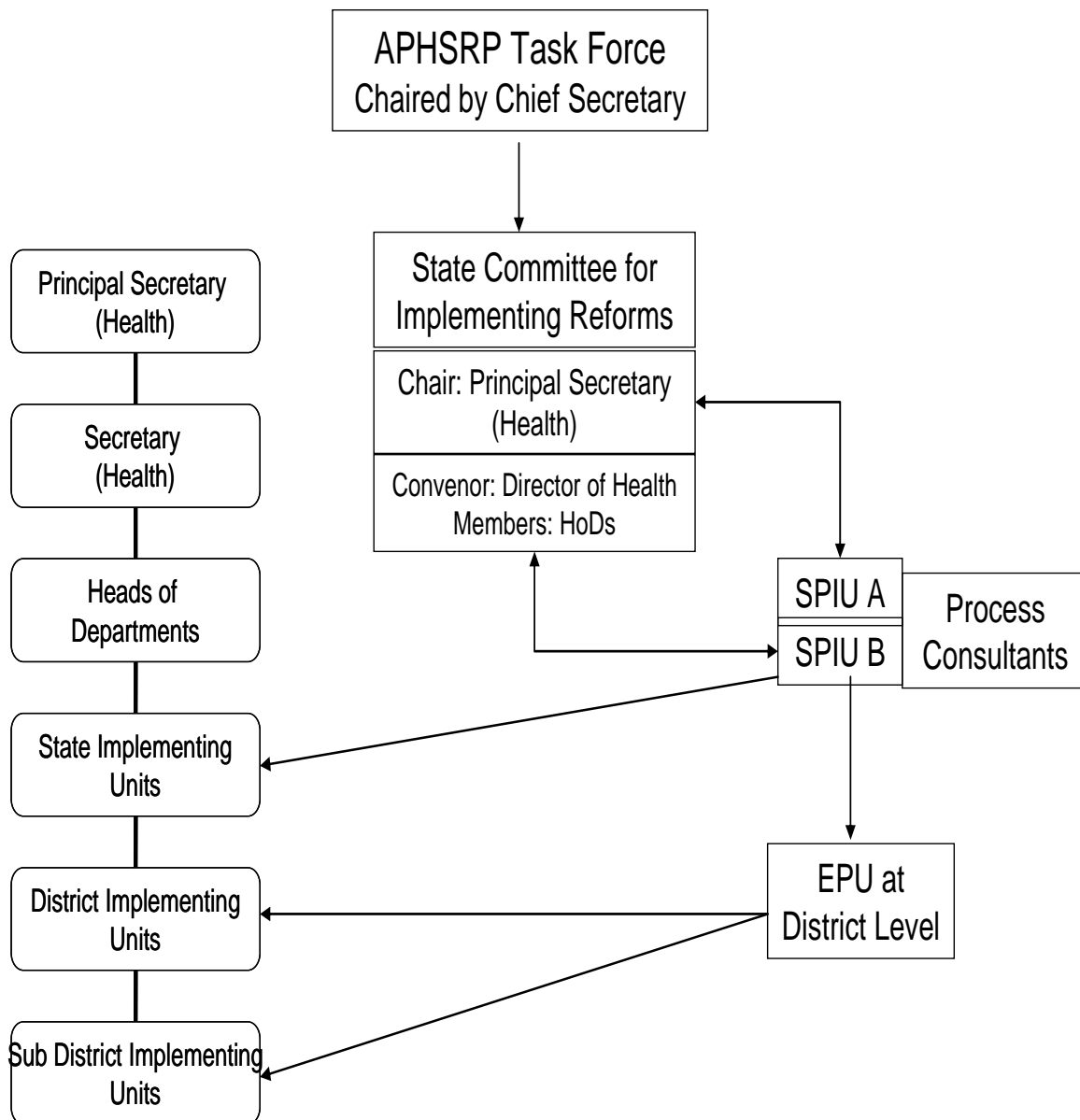
Institute of Preventive Medicine (IPM): This institute operates diagnostic facilities, and enforces Prevention of Food Adulteration Act, 1954. It also conducts water quality monitoring, and maintains blood banks. As part of its agenda, the institute also manufactures antigens and antisera for Rabies, Cholera, Typhoid, Tetanus Toxoid, Orosol etc.

(Price Water House Coopers, 2008)

Appendix II

Institutional Arrangements for Technical Assistance of the APSHRP

Proposed Under the Andhra Pradesh Health Sector Reform Programme



(Department of Health, Medicine and Family Welfare, 2006a)

Appendix III:

Proposed Institutional Arrangements for Health Sector Reforms in Andhra Pradesh

Level	Oversight	Support for Policy Setting	Implementing Agency	Program Support	Technical Support
State	State Health Mission Chair: Chief Minister Convenor: P.S DoHMFWS	Strategic Planning and Innovation Unit (SPIU)	DoHMFWS Directorates	SPIU provides support on HR and FM and governance reforms across sub-departments. State Program Management Unit (SPMU) supports NRHM reforms	State Health Research Center
	Mission Steering Group Chair: Health Minister Convenor: P.S DoHMFWS				
	State Health Society Governing Body Chair: Chief Secretary Executive Committee Chair: P.S DoHMFWS				
District	District Health Mission Chairman: Zilla Parishad Convenor: DMHO		DM&HO DCHS	District Program Management Unit (DPMU)	District Health Research Center
	District Health Society Governing Body Chair: District Collector Executive Committee Chair: CEO, ZP				
Mandal	Mandal Level Monitoring and Planning Committee	Mandal Level Institution/CHC			
Cluster	PHC Level Monitoring and Planning Committee	PHC			
Panchayat	Gram Panchayat Level Monitoring and Planning Committee	Sub-Center			

Village	Village Health and Sanitation Committee	ASHA	
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(Department of Health, Medicine and Family Welfare, 2006a)

Appendix IV: Andhra Pradesh Health Sector Reform Programme - Milestones Matrix

Logical Framework output	Activity/ Sub-output	Milestones in Year 2007-08	Milestones in Year 2008-09	Milestones in Year 2009-10	Outcomes
Output 1: Improved access to quality and responsive services, especially in underserved areas.	1.1 Participatory district planning in all districts with focus on underserved areas for strengthening NRHM plans.	<p>1.1 Convergent (health, hygiene, drinking water and nutrition) district plans prepared in:</p> <p>(a) 18 districts with focus on underserved areas prepared.</p> <p><u>Lead:</u> DoH (CFW/AYUSH/IPM/APVVP/RIAD)</p> <p>(b) Integrated Tribal Development Agencies (ITDAs).</p> <p><u>Lead:</u> CFW (DoH/AYUSH/APVVP/IPM)</p> <p>Support for implementation in both including untied funds provided.</p>	<p>Agreed framework implemented in first phase districts with annual assessments. Customer satisfaction surveys for different levels of facilities agreed and staff and community representatives orientated. Communications Strategy to address making the communities aware of these norms.</p>	<p>Successful initiatives up-scaled for all 18 districts (with village/PHC plans organically linked up to the district plans) with annual assessments.</p>	<p>More responsive planning for need based service delivery, especially in the underserved areas of the 18 districts.</p>
	1.2 Vulnerable groups targeted integrated to tribal development strategy.	1.2 Functional review undertaken of ITDA areas.	<p>Phased implementation of convergence plans in ITDAs.</p>	<p>Convergence Action Plan implemented in all ITDAs.</p>	<p>Evidence of improved immunization and nutrition for tribal areas.</p>

Logical Framework output	Activity/ Sub-output	Milestones in Year 2007-08	Milestones in Year 2008-09	Milestones in Year 2009-10	Outcomes
	2. Integration of HIV/AIDS into health service delivery.	2.1 Operational plan for integrating HIV/AIDS at all levels agreed and implementation underway. Integration of HIV/AIDS with the TB program. <u>Lead:</u> PD SACS (DoH/CFW)	Comprehensive communication strategy along with behavioral studies conducted.		Increased identification and treatment outcomes for TB with HIV. Increased access to HIV preventive services delivered through general health services.
	3. Improved Communicable Disease Surveillance and Control systems.	3. Action plan finalized for improved communicable disease surveillance, control systems and program management. Implementation commenced in phased manner. <u>Lead:</u> DoH (IPM/APVVP)		Integrated Disease surveillance and control systems implemented.	Reduced burden of communicable disease (including malaria).
	4. Insurance/ financial assistance initiatives undertaken for poor for critical health needs.	4. Insurance / financial assistance programs for financial protection of the poor assessed. Types of out of pocket expenditure identified. Technical Assistance for enabling improved access of the programs for the poor; support for community mobilization and awareness and IEC. <u>Lead:</u> PS (DME)	Improved pro-poor Insurance/ financial risk protection programs being implemented.	Improved pro-poor Insurance/ financial risk protection programs being implemented.	Poor people increasingly use financial protection schemes and reduced out of pocket spend and indebtedness from health spend.

Logical Framework output	Activity/ Sub-output	Milestones in Year 2007-08	Milestones in Year 2008-09	Milestones in Year 2009-10	Outcomes
	5. Essential norms for different services for under-served areas implemented	<p>5.1 Baseline established consistent with NRHM / RCH plans.</p> <p>5.2 Implementation of norms in underserved areas for access to effective primary and secondary health services which comprises: (i) medical and paramedical staff, (ii) equipment, drugs and medicines and physical infrastructure/ facilities. System for tracking developed. Implementation strategy developed.</p> <p><u>Lead:</u> PS (with DoH and TW) on medical and para-medical staff.</p> <p><u>Lead:</u> CFW (DoH/APVVP/AYUSH) on the rest.</p>	<p>Increase in the number/percent of total staff in health facilities in the underserved areas.</p> <p>Increase in the number/percent of health facilities in underserved areas.</p> <p>10 % increase in the availability of services towards the desired norms achieved in underserved areas as a priority.</p>	<p>25 % increase in the availability of services towards the desired norms achieved in underserved areas as a priority.</p> <p>Communication strategy implemented to raise awareness about these essential standards.</p>	Service utilization increased in underserved areas for priority services: (maternal, reproductive, child health and communicable diseases).

Logical Framework output	Activity/ Sub-output	Milestones in Year 1	Milestones in Year 2	Milestones in Year 3	Outcomes
Output 2: Governance and management of health sector strengthened.	6. Human Resource Management (HRM) function.	6.1. Human resource unit established. 6.2 Agreed HRM implementation plan, including for capacity building, developed with identified mentor institutions supported by government (particular interest in developing public health and nursing cadre). <u>Lead</u> : DoH (SPIU, APVVP, CFW and AYUSH).	1. Pilot testing of performance management and incentive plans for underserved areas. 2. Policy on transfer and posting implemented.	Full HRM policy implemented (includes rationalization capacity and reporting at district level, transfer & posting policy, difficult areas incentive policy, training policy& plan).	Reduced vacancies, absenteeism and improved performance of staff, particularly in underserved areas.
	7. Public-private partnership.	7. Models for collaboration with private providers in primary and secondary health care established in underserved areas. <u>Lead</u> : DoH (SPIU, CFW).	Pilot test the model of collaboration and test scale up possibilities. PPP framework established which enables private sector contribution to public sector goals, e.g. TB.	Implement public private collaboration strategy fully.	Private sector providers are providing significant proportions of services in underserved areas.
	8. Improved financial and procurement management practices for reducing	8.1 Progress made as per agreed FRA Mitigation Plan (Refer to the full FRA mitigation Plan). <u>Lead</u> : SPIU (all HoDs).	Progress made as per FRA mitigation plan. Progress made in procurement systems as per improvement	Progress made as per FRA Mitigation Plan. It includes Corruption Assessment Report.	Improved financial accountability – money used for intended purpose and well accounted for (refer FRA mitigation plan).

Logical Framework output	Activity/ Sub-output	Milestones in Year 1	Milestones in Year 2	Milestones in Year 3	Outcomes
	fiduciary risk	8.2 Procurement systems improvement plan drawn up, including for consultancy and institutional support. <u>Lead:</u> APHMHIDC (SPIU and other HoDs).	action plan		
	9. Monitoring and Evaluation (M&E) systems improvement	9.1 Integration and rationalization of current reporting systems for different disease control programs, Centrally sponsored health programs including NRHM /RCH and State Government health services. 9.2. IT enabled, user friendly HMIS system established for decision support at the state and district level for collection and analyzing disaggregated data. <u>Lead:</u> Secy. Health (CFW, SPIU and DoH).	Pilot testing on the use of RTI.	M&E system captures service delivery against NRHM indicators to the poor citizens (disaggregated basis). Regular reports are widely disseminated to relevant stakeholders which succinctly cover the key disease indicators. The reports are based on robust data (MOV-the HMIS quality assurance reports). Citizen feedback on service standards inform performance plans.	Stronger performance accountability for health services utilization by the poor and disadvantaged groups.

Logical Framework output	Activity/ Sub-output	Milestones in Year 1	Milestones in Year 2	Milestones in Year 3	Outcomes
		<p>9.3. Baseline measurement process for the purpose level indicators initiated. ⁴</p> <p><u>Lead:</u> Secy, Health (CFW, SPIU and DoH)</p> <p>9.4. Standards of service delivery at facility level pro-actively disclosed under the Right to Information Act, 2005. DHMFW Annual Report produced.</p> <p><u>Lead:</u> SPIU (all HoDs)</p>			
Output 3 Institutional mechanisms for community participation and systems for accountability functioning.	10. In line with NRHM guidelines, community participation and accountability strengthened.	<p>10.1. Guidelines prepared for the constitution of Village and Mandal health committees specifying their roles and responsibilities.</p> <p>10.2. Capacity building strategy for strengthening of Health committees for better planning and monitoring finalized.</p>	Village and Mandal committees constituted in poorer districts and capacity building action plan implementation begins.	<p>Community monitoring systems operational.</p> <p>Local health facility staff made accountable to the community in line with the guidelines.</p> <p>Guidelines are being followed in significant proportion of health</p>	Stronger community role in supervision and monitoring of local health facilities and services.

⁴ (refer to Output 1, Milestone 5 and Output 3, year 2 milestones)

Logical Framework output	Activity/ Sub-output	Milestones in Year 1	Milestones in Year 2	Milestones in Year 3	Outcomes
		<u>Lead:</u> CFW (DoH, ABVVP, AYUSH).		facilities. Evidence of the recommendations/concerns in the community monitoring reports is reflected in district plans.	

Output 4: Financial management system strengthened.	11. MTEF process institutionalized.	11.1 MTEF updated and improved with technical aid; Cost disaggregated reform implementation plan available.	Progress made on institutionalizing the MTEF in the departmental budgetary process.	GoAP Department of Health and Family Welfare and Department of Finance jointly produce MTEF. Resources to health sector increase in real terms year on year as compared to the baseline. Resources to primary and secondary health care maintained in real terms year on year, as compared to the baseline.	Capacity of GoAP built to prepare multi-year health expenditure framework according to medium-term strategy developed. Primary and secondary health care focus of overall health expenditure maintained by GoAP.
		11.2. Resources to health sector increase in real terms year on year as compared to the baseline. 11.3. Resources to primary and secondary health care maintained in real terms year on year, as compared to the baseline. <u>Lead:</u> SPIU and FA (and Finance Department).			

	12. Targeting resources to remote and interior areas.	12. Criteria developed for effective targeting of resources to poorest (including underserved areas) agreed. <u>Lead: PS (SPIU/FA).</u>		Reported allocation as per framework to poorest areas.	Improved pro-poor allocation in the health sector with effective targeting of resources to underserved areas.
	13. Departmental Financial Management Capacity strengthened.	13.1 IT enabled Financial system Plan drawn up for improved financial management (including addressing under spending) at the State and District levels. 1.2 Training need assessment and training plan drawn up for improved financial management. <u>Lead: SPIU</u>	Professional finance/accounts and health economics personnel appointed according to the Financial Systems Improvement Plan. Under-spending <10% of allocation. Training program started for staff at State and district levels.	All Departmental DDOs trained in financial management and accountability. Under-spending <5% of allocation.	Required financial competencies attained and system for effective health budgeting and financial reporting developed at the State and District levels.

(Government of Andhra Pradesh, 2006b)

