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Working Paper No. 10

June 2006



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English
Working Paper

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First published in June 2006

Printed at:
St. Joseph's Press for Achutha Menon Centre for Health Science Studies

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RE-ACTIVATING PRIMARY HEALTH CENTRES THROUGH INDUSTRIAL PARTNERSHIP IN TAMIL NADU: IS IT A SUSTAINABLE MODEL OF PARTNERSHIP?^{ab}

D. Varatharajan and D. Wilson Arul Anandan^c

INTRODUCTION

Kerala's success in human development demonstrated that efficient functioning of government health care delivery system opens the doors of prosperity for the poor and vulnerable sections of the population.¹⁻⁴ Better accessibility, appropriateness, effectiveness and efficiency of public health care system largely enhance its utilization by the population.⁵⁻⁷ If efficient, public health care system becomes a competitor for the private sector and competition from it serves as an important factor in determining the treatment cost even in private hospitals. Elimination of inefficiency also acts as a source of finance for the public health care system, as it is equivalent to a significant increase in the resource availability.⁸

In spite of the advantages, public health care system in India is functioning at the 'sub-optimal' level.^{2,9} This is partly due to the problem of resource strap because overall allocations to health has been coming down ever since the New Economic Policy came into existence in 1991.¹⁰⁻¹¹ The share of government in health care expenditure has come down from about 25 per cent in 1991 to 17 per cent in 2001.¹² Governments of all the other countries, rich or poor, invest proportionately more GDP in health than India does (0.9 per cent); only Georgia (0.7 per cent), Indonesia (0.6 per cent), Nigeria (0.5 per cent) and Myanmar (0.4 per cent) lag behind India in this respect.¹³ Although the decline has been steady since 1970, it was more pronounced during the 1990s.¹⁴

Reduction in government expenditure on health greatly affects the non-hospital health care institutions such as Sub-centres, Primary Health Centres (PHCs) and Community Health Centres (CHCs), as the budgetary allocation to health is accused of being pro-hospital.¹⁵⁻¹⁶ Within government non-hospital health care institutions, the axe falls on non-salary items

^a This study received partial financial support from the World Bank, New Delhi

^b An earlier version of this paper was presented at the 5th world congress of the International Health Economics Association (IHEA), Barcelona during July 2005.

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such as drugs, supplies, equipment, fuel and maintenance. As a result, patients often face shortage of drugs and deteriorating buildings and equipment. This is happening at a time when the cost of health care is increasing at a rate 10 times higher than the Index of general commodities due to application of more expensive technologies to medical care.¹⁷

In nutshell, the way government health care system is organised and managed at present is found to be deficient in many ways. It is also under much closer scrutiny now than ever before, as privatisation has become a centrepiece of health system development debate. At the same time, due to economic circumstances, and rising cost of private medical care, people, particularly poor and vulnerable sections, look forward to government health care services. Therefore, it is necessary to rehabilitate government health care system through alternative cost-effective management. One of the options available is to combine public and private resources so as to enhance the access, quality and efficiency of the government health care system.¹⁸⁻¹⁹ In fact, promoting public-private partnership for achieving public health goals particularly in under-served areas is one of the stated strategies of the National Rural Health Mission released recently by the Government of India.²⁰ More specifically, it requires the identification of need-based, thematic and geographic areas of partnership.

The partnership could go beyond the health sector and one such instance is provided by the Tamil Nadu experience of involving non-health sector in enhancing the functioning of government health care institutions. This paper analyses the rationale, content and implications of the government policy of involving industrial units to improve the Primary Healthcare Centres (PHCs) in Tamil Nadu.

PUBLIC-PRIVATE PARTNERSHIP (PPP) – CONCEPT, EXPERIENCE AND ISSUES

Partnership is defined as a collaborative effort and reciprocal relationship between two parties with clear terms and conditions to achieve mutually understood and agreed upon objectives following certain mechanisms.²¹ The overall intent of public-private partnership is to utilise the strengths of the public and private sectors. Some experts take objection to the term 'partnership' and prefer the term 'participation' because partnership tends to include the notion of 'return on investment'.²² At the same time, the term 'participation' is hierarchical and could signify passive or lesser role for certain participants; hence, it is not equitable. Other terms used in the literature to indicate the association between the public and private sectors are 'cooperation', 'collaboration', 'management' and 'linkage'. While the terms can be 'twisted',

the spirit behind the public-private partnership in health is to tap their mutual potential for the overall benefit of the people, especially disadvantaged sections.

The origin of public-private partnership can be traced back to early 1980s.^{19,21} National Health Policy, 1982 recognised the government faced many financial obstacles in its objective of providing efficient health care services.²³ As a result, private involvement in the provision of health care was encouraged by the government by offering duty exemptions and other concessions. While privatisation was encouraged to bridge the gap in government health care provision, large private existence in both financing and provision have made the government about partnering with the private sector. Partnership is now preferred to privatisation. This is probably based on the experience of the National Health Service in the UK in early 1990s.¹⁹ In 1992, NHS allowed private investment in government sector without the reduction of public spending. The initiative was known as 'Private Finance Initiative', with the objectives of enabling public and private sectors to work more closely encouraging joint ventures, leasing of assets, and the private provision of services in order to help finance capital-intensive projects, providing means by which the private sector can genuinely assume some of the risk, and ensuring the value for money.

In India, Tenth Five Year Plan envisages a partnership between public, for-profit private and not-for-profit private sectors to meet the health care needs of the poor and other disadvantaged populations.⁹ National Health Policy 2002 too envisaged the participation of the private sector in primary, secondary and tertiary care.¹² Now, National Rural Health Mission has come out strongly in support of public-private partnership.²¹ Given that national policies in India are in favour of partnership with the private sector, various state governments are exploring the options of involving the private sector in meeting national health goals and growing health care needs. There already exists some form of collaboration and partnership between public and private sectors in the control of diseases such as blindness, leprosy, TB and HIV/AIDS.

Potential Benefits of PPP in Health

Public-private partnership is seen as a means to achieve an end through innovative strategies. The focus of partnerships in the past has been on developing strategies to utilise untapped resources and strengths of the private sector.¹⁹ Other possible benefits of PPP are^{19,21} (1) enhancement of health care capacity to meet the growing needs, (2) reduction of financial burden on the government in relation to services where partnership is sought, (3) reduction of geographic disparities in service provision by bridging the existing gaps, (4) reaching health care provision to hitherto un-reached remote areas, (5) improvement of efficiency

through evolving new management structures, (6) greater choice of services to the poor, (7) provision of private services at reduced cost, (8) cost reduction due to economies of scale, and (9) synergy between public and private sectors results in reduced duplication of efforts.

Overall, PPP has emerged as an option to influence the growth of private sector keeping public health goals in mind. In addition, co-option of the non-government sector in the national disease control programmes is likely to ensure that standard treatment protocols are followed in their day-to-day practice.²¹ Nevertheless, despite its potential benefits, the real impact of PPP on health and health care is largely unknown; where it is known, it is found to have very limited impact or the evidence is inconclusive.²⁴

Characteristics of Successful Partnership

Like many policies, despite its stated advantages, success of public-private partnership is not automatic. Several questions need to be answered before involving the private sector in public sector activities.^{22,25} When do we call PPP a success? It is essential to think about possible outcomes before entering into partnership. Is the government better off to achieve national health goals with or without the private sector? In India, it is argued that the non-government sector is the dominant health care provider and therefore, it is essential to recognise it and partner with it. Does higher utilisation mean higher potential to solve the country's health problems? Does bigness automatically qualify the private sector to be a fit partner? Will the partnership increase the size of and dependence on private sector or diminish it? Is public/private sector really interested to involve the other side? Under what conditions would the public/private sector work with the private/public sector? For instance, how to overcome the distrust between these two sectors? Does the partnership bring private resources into public sector or is it opposite? Given the fiscal crises of many states, the tendency will be to enter into partnership for resource gains to the public sector. If this is true, how will the resources thus generated be used? If it is opposite, how will the government find additional resources to finance partnership?

Answers to these questions can be sought under particular contexts, as there are no readymade answers. Public-private partnership is not a technical issue and has to be approached from social and economic sides. Since both sides do not know the other side, there is a fear for 'unknown' and there may be tendency to go for privatisation in the name of partnership because partnership requires understanding of each other. To enhance efficiency, the country requires partnership, not privatisation. There are also technical sides to PPP. One of the technical issues is whether or not the partnering parties have the technical

skill to undertake the tasks under PPP. One could think about some success indicators such as the proportion of people newly using public sector facilities that partnered with the private sector due to improved quality or range of services, and proportion of poorest 10% utilising the partnering public sector. When the success is analysed, it is important to distinguish between individual opinion and real hard evidence. It is also good to categorise what worked and what did not.

Partnership Experience in India

In India, private sector participated in public health care system in several ways – clinical, non-clinical, philanthropic, non-philanthropic, financial, non-financial, preventive, diagnostic, curative, and rehabilitative. Financed by the government, donors or the private sector, results of such partnerships have been mixed. Past experience showed that some partnerships, however well-designed and well-attempted, failed to take off while some others succeeded but could not be sustained; yet another set of partnerships succeeded and survived longer.

Government support to developmental not-for-profit private organisations and for-profit private institutions in implementing public health programmes (Blindness, HIV/AIDS, leprosy, and TB) is an example of government initiated and financed partnership.²¹ Since the private sector is likely to be the first contact point for many people, it is likely to read the first signal of any outbreak and so, it is crucial to establish partnership with it. Under Integrated Disease Surveillance Project (IDSP), private providers could report unusual health events through email or phone.²⁶ Reimbursement of the cost of medical care provided by recognised private health care providers by central and state governments and public sector undertakings is another example. Besides, some state level initiatives and financing of the partnerships are reported. Under the Reproductive and Child Health Programme in Tamil Nadu, specialists such as anaesthetists are hired from the private sector and paid Rs. 1,000 for every 10 family planning operations they perform.²² There are also not-so-successful partnerships in some states (Delhi, Punjab, and Rajasthan) since 1995 in the form of provision of land, water and electricity at a subsidised rate, and import concessions.^{19,21}

Some other partnerships are government initiated but private (for-profit and not-for-profit) financed. Contracting out of government health care (clinical/non-clinical) services such as X-ray, scan, diet, catering, security, laundry, and IEC in states like Maharashtra, Orissa, Tamil Nadu, Uttaranchal, and West Bengal is an example of partnerships of for-profit nature.^{21-22,27} *Contracting* is employed where gaps exist in public provision. Handing over the management of public sector health facilities to the private sector (Gujarat, Karnataka,

Maharashtra, and Orissa) and sub-contracting of diagnostic, curative, and surgical procedures by the governments of Delhi and Tamil Nadu, Central Government Health Services, and Employees State Insurance Corporation are other examples of for-profit partnership.²¹ Example of not-for-profit partnership is provided by the provision of information for disease surveillance by private practitioners in Kerala, Maharashtra and Tamil Nadu. NGO or industrial adoption of government institutions is also an example for not-for-profit partnership. Running of urban health centres by NGOs,²⁸ social marketing,²⁸⁻²⁹ Sukibhava Scheme in Andhra Pradesh,²⁸ Chirajivi Yojana, Sewa-rural, and grant-in-aid hospitals in Gujarat,³⁰ and district health society in Himachal Pradesh²⁷ are few other examples.

Private initiated and financed partnerships too exist. The most recent example of philanthropic participation from the private sector is the supply of free drugs by a French multinational firm under the national filarial programme.²² Provision of health care to the population living in a defined area by private individuals/institutions/industry (adoption of villages by Tata Steel Company) is another type of partnership.²¹ Joint venture hospitals (specialty hospital in Mumbai by government of Maharashtra) and build, operate and transfer (BOT) are emerging new areas of partnership. *Joint ventures* aim at providing optimal and cost-effective care using modern amenities whereas *BOT* offers concessions to the private sector to build, operate and transfer health care facilities. There are also other forms/models of partnerships that are being debated in India.^{21,24} *Franchising/branded clinics* is a form of quality assurance by offering rights and flexibility to the private providers. *Social marketing* uses existing marketing channels for public health purpose. *Vouchers* provide government finance or subsidised private pre-paid resources for private care. *Donations* help the government to tap private resources from affluent people. *Involvement of social clubs* enhances efficiency in the organisation of community-based programmes/camps. *Involvement of professional bodies* enhances professional response to programme needs. *Health insurance* through government-private-community/people partnership tends to provide insurance cover to the disadvantaged. *Private adoption of public facilities* helps to improve access by taking health care to the under-served areas.

Issues of Concern

Although one can track the history to find several examples of partnerships in different states of India, there has not been any attempt to independently evaluate their impact on health or health care.²² There are, however, some self evaluations or claims about the success of partnerships.³¹⁻³² Social marketing is claimed to have accounted for a significant proportion of

sale of condoms and other spacing devices. Similarly, public-partnership is said to have enhanced contraceptive prevalence by about 5 per cent every year. More evidence is required to prove or disprove such claims. Hence, the major task ahead is to document PPP experiences and estimate their cost-effectiveness. Documentation of successful models would help scaling them up for the benefit of larger segment of population. Failed forms of PPP too will offer lessons and avoid unnecessary duplicate experimentation. While PPP seems to hold promises for the health sector, there is not a single success formula serving as a blue print.

Several issues crop up while designing, identifying partners, and executing the partnership. First, there is scepticism among private providers as to whether government genuinely desires to partner with them or attempts to gather secrets from them through PPP. Second, one of the basic requirements of partnership is perfect understanding among the partnering sides. But, in reality, both sides do not have adequate knowledge about each other. As a result, they may end up sharing the weaknesses not strengths. Third, it is essential to understand the possible trade off between societal gain out of partnership and profit expectation of the private partner. If partnerships predominantly serve the business motive of the private sector, then societal gain will be minimal. For instance, questions are raised about the impact of social marketing of contraceptives on Total Fertility Rate (TFR). While it is unfair to question the credibility of organisations through rapid estimates of complex outcomes, it is also essential to keep the ultimate goal of the partnership in mind so that partnership enhances social not private gain. Fourth, governments may lack skill to negotiate with the private sector so as to enter into mutually beneficial partnership. Or government negotiators do not do their homework proper before negotiations.

Fifth, there is fear among private providers that government may not pay their dues in time due to fiscal crisis.²² Delayed payments and bouncing of cheques from state governments are common experiences. Sixth, private sector is not a homogeneous entity. It is essential to develop accreditation mechanism to assure quality for standardised service through PPP since PPP involves outsourcing of care.²¹ Seventh, many partnerships, even if they worked, were short-lived because there was no mechanism to sustain them. So, it is necessary to have budgetary provisions or streamline private philanthropic resources for their sustainability. Many private players, health or non-health, are interested in some form of community work.

Given the fiscal scenario of many states, gaps in the public provision of health care, and interests shown by various key actors in health sector, public-private partnership will continue to draw policy attention in India. At the same time, it is necessary to guard against PPP becoming a policy to de-congest government responsibilities.

TAMIL NADU HEALTH CARE SYSTEM – A SYSTEM IN TRANSITION

Tamil Nadu, with a population size of 62.4 million, accounts for 6.1 per cent of India's population and is one of the most urbanised states in the country with 43.9 per cent of the population living in urban areas.³³⁻³⁴ The state has the distinction of having initiated various social reforms often channelling political action in the desired direction.³³ It is also known for its many interesting health interventions that ultimately served as models for other states to emulate.³⁵ Although health indicators like the Infant Mortality Rate (44 per 1,000 live births) is better than the national average (64 per 1,000), some districts have higher rates; and the southern *Virudhunagar* district topped the list in terms of stillbirths.³⁶⁻³⁷ Government spending in the state is 0.8 per cent of Gross State Domestic Product (GSDP) or 5.3 per cent of the state revenue budget.³⁸ Primary care received a higher budgetary share of 43.9 per cent in 2001-02. Public health care institutions account for 28 per cent of in-patients, 29 per cent of out-patients, 52 per cent of ante and post natal care, 81 per cent of immunisations and 52 per cent of paediatric in-patient days; rural areas are marginally better off.³⁹

The state is one of the two Indian States (the other being Kerala) where the health care infrastructure is considered to be good.² Nevertheless, it has the challenge of coping with higher illiteracy, poverty, and inequitable development with serious rural-urban, rich-poor and male-female differences compared to Kerala.⁴⁰ The public sector has a dominant presence here. Government health care system in the state has 323 allopathic hospitals, 3 Indian system of medicine hospitals, 213 dispensaries, 40 siddha dispensaries, 5 ayurveda dispensaries, 1,413 Primary Health Centres (PHCs), 8,682 sub-centres, and 22 other medical institutions employing 10,220 (92.6 per cent allopathic) doctors.³⁷ Besides, the state has an estimated 34,804 (97.1 per cent for-profit) private health care institutions (own account or established) employing 96,851 personnel; 43.0 per cent of them function in rural areas accounting for 32.4 per cent personnel.³⁸ Not-for-profit sector has 1,011 institutions and 15,388 beds. The public sector has 52,387 beds (40.8 per cent in medical education, 40.4 per cent in medical services, 12.5 per cent in public health, 4.5 per cent in ESI, and 1.8 per cent in Indian system of medicine).³⁷

Each PHC in Tamil Nadu, on an average, covers a population of 25,614 and sub-centre 4,237 and receives an annual budget of about Rs. 13.0 lakhs.^{33,41} A typical PHC has 6 beds, 2 physicians, pharmacist, Auxiliary Nurse Midwife, laboratory assistant, and 5 others.⁴¹ It provides antenatal care, deliveries, immunisation, family planning services, and treatment for TB, Leprosy, dog and snake bites. Community Health Centres (CHCs) and PHCs together account for 7.2% of the state's total outpatient care.³⁸ Each PHC carries out about 10 deliveries in a month.³⁷ The administration of PHCs has been brought under the control of the Director of Public Health and

Preventive Medicine from 1st March 1996. The Directorate was formed in as early as 1923 for the improvement of the general health conditions of the people with special emphasis on providing maternity and child health care to the rural and urban poor and for prevention and control of communicable diseases. For administrative purpose, the state is divided into 42 health districts (compared to 29 revenue districts) each comprising of 30 – 40 PHCs.

Recent Reforms

Performance of the government health care system slackened during the 1980s mainly due to significant reduction in State's recurrent expenditure on various facilities and schemes; the rate of decline was found to be 7.6 per cent.⁴² The expenditure cut was more pronounced in rural areas and on non-salary components. As a result, in addition to the widening of rural-urban gap, staff-material ratio too has gone up from 1.4 in 1974-75 to 2.3 in 1985-88. Consequently, non-government providers grew significantly resulting in commercialisation of healthcare, high healthcare costs and denial of service to persons unable to pay. They even treated a significant proportion of infectious diseases such as TB and malaria.

In response to the stagnant performance of the government health care system, the government came out with some reforms during the mid-1990s. Some of them were its own initiatives while some others were initiated at the national level. The foremost was the establishment of Tamil Nadu Medical Service Corporation (TNMSC) to overcome the short and erratic supply of drugs and supplies to government health care facilities. The programme of industrial participation in health care provision in government institutions was another novel experiment by the state government to improve the efficiency. *Varummun Kappom Thittam* (a special health camp scheme), 24-hour PHCs, pay wards in government hospitals, community participation in infrastructure development, government employees health fund, health management information system, and establishment of the Tamil Nadu Aids Control Society, and the Tamil Nadu Blindness Control Society were other changes brought in. The most recent reform measure is to upgrade the PHCs into 30-bedded hospitals, and 106 PHCs have already been upgraded by 2005.⁴³

INDUSTRIAL PARTNERSHIP IN THEORY

The 1997 government of Tamil Nadu felt that in the existing budget situation it was not in the position to spend enough resources on government medical care institutions, thus started actively to look for non-government options to raise funds for health care. The programme of industrial participation was thus initiated by the state government in order to break the poverty-

ill-health nexus.^d The political, bureaucratic and industrial environment was quite favourable, and it was understood that the industry sector was disposed to participate. The political leadership was the main driver and was able to convince the administration (both secretarial and health service) of the idea of cooperation.

The stated objective of the intervention was to improve the functioning of the public health care system in under-served areas and to provide better service conditions to the poor by tapping the philanthropic instincts of the state's industrialists. The government chose this mode of intervention because the government thought that the industry had already been carrying out similar work for quite some time and that it would be of an advantage to streamline these activities. Sustainability seemed to be likely as it was a continuation of ongoing activities. One district level health functionary summarised the overall objective of the policy:

“By upgrading the quality of the infrastructure, quality of care will increase. This will limit the rush towards higher-level facilities meant for addressing severe illnesses. The policy would support the public health care institutions to bring health care closer to the rural people”

Process

On the 1st November 1997 the then Chief Minister (CM) convened a meeting (considered to be the starting point of the scheme) of more than 100 industrialists from all over the state. The CM appealed to industrialists to participate in the scheme so that with their help, maintenance of government hospitals and primary health centres could be improved.⁴⁴ In the follow-up, the government formulated a flexible scheme suiting the convenience of different sponsors and issued a Government Order (G.O.) for involving and enabling the participation of industrialists. It also instructed all the relevant government departments such as the Pollution Control Board and the Drug Controller's Office to enforce this policy. Above and beyond, the CM also personally contacted his industry friends to help the government in this endeavour.

For the implementation, the government identified gaps in the public health system and mapped those PHCs and other government health care institutions that were ill functioning. Consequently it prepared a list of all PHCs (and other government health care institutions)

^d Poverty generates an unhygienic and unhealthy environment leading to poor health, which in turn, causes poverty in the absence of sickness benefits.

requiring overhauling and maintenance. On the other side, it also identified all top industrialists in the state and provided with the priority list of institutions in need for '*face-lift*'. Industrial units were free to choose the institution(s) that would suit them, for proximity reasons or other criteria. In general, care was taken to match the institutions to the industries in the vicinity.

The government contacted the respective industrial companies requesting them to step in to revamp the functioning of PHCs. The companies were expected to invest in infrastructure and other quality improvements of the centres, allowing them to serve more clients and in a higher quality way. In addition to voluntary participation, there were also instances when industrial units were 'gently forced' to participate. This happened when they sought help/licensing from the government, they were asked to contribute. Industries were given assurances when providing support to the facilities in order to facilitate smooth and successful implementation of the policy at local level. On the other side, the facilities were promised extra staff, building, and additional resources.

Partnership Models

Three models of '*industrial adoption*' existed, as can be seen in Box-1. The models indicated varying degrees of industrial involvement, from *model-1*, the complete adoption, meant a one-time cost of about Rs. 11 lakhs and an annual recurring cost of about Rs. 14.5 lakhs to *models 2 and 3*, the partial adoptions, requiring the same one-time investment and an annual recurring expenditure of Rs. 4.5 lakhs and Rs.3.0 lakhs respectively. Based on these models, a Memorandum of Understanding (MoU) was prepared in consultation with the Government Pleader of High Court, Chennai, to be signed between the partners: the government and the industrialists. The G.O. also gave permission to the concerned directors to effect changes in the pattern of maintenance and MoU where necessary.

On the other side, each potential industrial unit undertook a survey of their respective health care institution(s) in order to identify investments and other needs, based on a list provided by the district health service office. Once the situation analysis was done, the industrial unit included new or to be renovated facilities in the MoU it signed with the government. The MoU clearly laid out the value of the support, the time-line of activities, and the duration of the adoption. As soon as signing the MoU, the units commissioned work in close coordination with the PHC medical officer and the staff. However, there was no separate agreement or MoU between the adopting industrial units and the adopted PHCs.

Box-1

Models of industrial participation in PHCs

Model-1

Meeting the total expenditure of Primary Health Centres/Government hospitals including staff salary, cost of medicines, cost of purchase and maintenance of equipment, and civil works such as construction and maintenance of infrastructure, buildings, and staff quarters, etc.

Model-2

While staff expenditures would be borne by the government, the industrial sponsor would meet the cost of medicines, equipment and civil works including the construction and maintenance of infrastructure, buildings and staff quarters, etc.

Model-3

While staff expenditures and medicine costs would be borne by the government, the industrial sponsor would provide equipment, undertake civil works and periodic maintenance of the buildings.

PARTNERSHIP IN PRACTICE

For various reasons, in the past, the state government had been able to provide resources for the maintenance of basic facilities but was not in a position to meet the extra needs of the PHCs. Extra resources, however small they were, made the difference between a well or a poorly-functioning health care institution. Through this policy, the government wanted to create better service conditions at the doorstep of the rural community so as to gradually decrease the referral to and over-reliance on higher-level health care facilities. The objective was, that hitherto untreated patients would receive treatment, and waiting times, wage loss and travel cost of those who already sought care would be minimised, and those who required higher level of care would get appropriate care at appropriate time. As one senior district health functionary puts it "*Better health is the overall objective of any health care infrastructure*". Target beneficiaries included the rural poor, especially women, children and the marginalized.

As mentioned earlier, the industrial response was voluntary in some and 'forced' in some other cases. Although the response was not as overwhelming as expected, overall it was seen as a novel method of raising additional resources for the state health sector. Within a

week of the release of the G.O., 19 industrialists came forward to adopt 63 government health care institutions including Sub Centres, PHCs and Government Hospitals. The first list of adopted institutions included 52 PHCs and by June 2002, 34 industrialists/other bodies adopted 70 (5.0 per cent) out of 1,411 PHCs in Tamil Nadu. In other words, out of 100 industrialists who participated in the CM's meeting, only 34 came forward to implement the policy. Number of PHCs adopted by the industrialists has gone up to 90 (6.4 per cent) out of 1,413 October 2005.⁴⁵

All of them preferred partial adoption (30 the model-3 and four the model-2). Model-1 (complete adoption) did not find favour with the industrial units for three reasons. First, the proportion of salary is too high and therefore, complete adoption would call for higher commitment of resources (about Rs. 12-15 lakhs per annum). Second, given that government institutions are over-staffed, private partners, if they are to go for complete adoption, would prefer to trim the staff strength by about 25 per cent and it would not be acceptable to the government and the staff. Even the private partners may not be interested to retain the same staff and/or the same salary structure, if they are to control and finance them. Third, supply of medicines to government institutions is fairly streamlined and is efficiently managed in Tamil Nadu⁴⁶ and there is no need for the private partners to step in to provide medicines. In fact, if they do, it might destabilise the already existing arrangement for medicine supply.

The total amount spent over a four-year period was Rs. 93,66,090/-, corresponding to an average Rs. 1,31,375/- per PHC. Most industrial units allotted about Rs. 2,00,000/- per year; some of them showed a commitment for about Rs. 25,00,000/- over three years. Support came in form of infrastructure maintenance, construction of wards & staff quarters, provision of equipment, furniture, etc. The total support amounted to about 0.1 per cent of state government expenditure on PHCs. Activities performed under the industrial participation were creation, renovation and furnishing of operation theatres, appointment of staff nurse, construction or repair of wards, compound wall, fence, toilets, and staff quarters, provision of beds, telephones, transport, and drinking water facility, electrical wiring, blood donation by industrial workers, and provision or repairing of medical equipments and furniture.

District Level Impact

Among 29 districts in the state, one backward district was chosen for detailed analysis. Participation of the industrial units varied across districts and *Virudhunagar*, a district of 1.75 million people, is one of the beneficiary districts. A vast majority of the people in this district is socially and economically backward and live in rural areas.⁴⁷ The district has the highest stillbirth rate and higher infant deaths than the state average.³⁶ Reasons for higher infant

deaths are found to be both socio-economic and systemic. Although the people are predominantly poor and backward, government facilities accounted for only 41.0 per cent of deliveries and 39.0 per cent of antenatal care in 1998-99; only 18 per cent of women were visited by the Auxiliary Nursing Midwives (ANM).⁴⁸ This district was chosen for detailed analysis of the policy and its performance.

The district, with a 2.8 per cent share in the state's population, has 36 PHCs, four of them were adopted by three industrial units of different sectors (cement, medical care equipment, and textile). The details of the industrial support to the adopted PHCs are given in Table-1. One PHC received support from one industrial unit as well as an NGO whereas one industrial unit supported two PHCs. The participation was a one-time affair in all the places.

Table-1
Industrial support to adopted PHCs

PHC	Adopted by	Year	Estimated value of support (Rs.)
PHC-A	Textile mill	2002-03	25,000
PHC-B	Biomedical technology unit	1998-99	1,73,000
	An NGO	2002-03	40,000
PHC-C	Cement manufacturer	1998-99	74,500
PHC-D	Cement manufacturer	1998-99	30,000
	Total		3,42,500

Reasons for industrial support were different. For one sponsor, it was just a continuation of what it was already doing; another felt it ok, as its workers lived in the area, and a third one considered it rather as being government coercion. In general, the advantages seen by the industry were better rapport with the community by having the opportunity to openly serving it, and an increase of its client base, as the project served as an advertisement for the company.

Overall results in the district were moderately good; the district accounted for 5.7 per cent of adopted PHCs in the state and attracted a total of Rs. 3,42,500, 3.7 per cent of all industry

contribution in the state. Annual client load may be taken as one of the output indicators concerning this policy, as one of the major reasons for an industrialist to 'invest' in a PHC is to increase the client load so that the message of adoption reaches out to more people. Annual client load served by the adopted PHCs and their trends over the 5-year period (1998-99 to 2002-03) are given in Table-2. In the PHCs where industrial units participated, client load increased by an average of 8.9 per cent in one year, with growth ranging between 5.9 per cent and 20.5 per cent in each PHC.

Table-2
Clients served by the adopted PHCs

PHC	1998-99	1999-00	2000-01	2001-02	2002-03	Annual growth rate (%)
PHC-A	16,420	18,363	22,992	30,721	33,277	20.5
PHC-B	30,237	33,193	30,892	38,933	41,349	7.4
PHC-C	26,957	28,162	29,874	31,539	34,870	5.9
PHC-D	24,600	24,840	25,200	28,476	32,283	6.3
Total	98,214	1,04,558	1,21,940	1,29,669	1,41,779	8.9

The policy also had other good effects, which are less than fully quantifiable. For instance, the policy facilitated local ownership and supervision. A top-level district health functionary said

“One important by-product of the policy is that some form of inter-sectoral linkages are developing that will ultimately benefit the rural community”.

Moreover, more than the asset base created, the policy helped the system to activate a major portion of idle capacity that existed before the intervention. In many cases, value of the activated assets was more than 10 times the investment made to activate them. Moreover, as one medical officer pointed out, the last time the government made this kind of investment was about 30 years' ago and so, any investment, even if it came as an one-time booster, was worthy.

One of the medical officers, however, felt that the outcome of the policy has to be viewed carefully. For instance, if the industry creates certain facilities like operation theatre and the

government does not support it with other complementary measures such as providing anaesthetist, the policy may not work. Also, while an industrial unit develops one PHC and simultaneously, another neighbouring hospital/PHC receives a face-lift, clients of the former might utilise the latter if the institution is of superior type.

STAKEHOLDER VIEWS

In order to get a better picture of the impact of the scheme, a study was commissioned to find out the views of 89 principal stakeholders – 12 PHC staff (including medical officers), 5 government (state/district) health officials, 4 managers from the industry, 13 community leaders and 55 patients/clients. Staff, community leaders and patients were drawn from all the areas in the district covered by the study.

PHC Medical Staff

All the staff members of the PHC were aware of the policy and its objectives. Majority (two-third) of them felt that the policy was a long term measure, sustainable, and should continue. They saw this as an exercise benefiting all three - rural community (better quality of care and a larger range of choice), the staff (better work environment and job satisfaction) and the industry (tax benefits, publicity and community rapport). The number of people accessing the facilities increased as they found their needs addressed by the PHC. By allowing the use of closer located health care centres, the policy considerably reduced transport cost and wage loss. One medical officer summarised patient benefits by saying,

“Earlier, they used to spend two days going to other more distant facilities. Now, it takes only half an hour and it is the same level of care”.

The programme, according to one medical officer, provided ‘*non-monetary incentives*’ to the staff, by facilitating their task and reducing workload. Before, in one centre, the staff used to take personally the patients to a higher-level facility; it was no longer necessary as they could receive the same care in the PHC after the policy. It reduced staff workload considerably, and also minimised the delay in getting access to the facilities. Prior to the programme, medical officers had to write several letters to government authorities and for the referral to other institutions, and often had to wait for longer periods. Even they had to spend resources from their own pocket in the past. One medical officer puts it this way:

“There was a time when medical officers spent resources from their pocket to provide certain essential services to the patients. At least, this is no longer necessary”.

Despite the general impression of improvement, some staff felt on the contrary that their workload had gone up and they had to work even on holidays now.

According to the staff, all participating industrial units got benefits out of the scheme even though it was difficult for them to list these benefits. Often the industry portrayed itself as 'saviours of the people'. One sponsor, who multiplied his support by 10 times, consequently substantially increased awareness and public appreciation. For the PHC staff this was ok, as long as the scheme helped the people.

Some members cautioned that the impact had to be carefully evaluated. If the industry created facilities such as operation theatres while complementary inputs, such as the anaesthetist would not be supported through the public budget, the scheme would fail. Moreover, programme activities in other places needed to be taken into account. For example, when one centre was developed with industry support and in the meantime a neighbouring institution also received a face-lift, the expected benefit may not materialise in the first referred centre, if the second one is a higher-level (say, sub-district hospital) facility.

But staff's overall impression was that the policy made a good start, and that time would tell if it was successful in the long run. One said,

"While the industrial involvement is recommendable and is doing well so far, the results (efficiency) need to be improved further, so that other companies get interested in the scheme and make the support more sustainable".

However, some professionals thought that the industry support should be restricted to the provision of facilities and maintenance, but not extended to the administration.

Government Officials

Both state and district health officials believed that wherever support existed, it definitely made a difference to the PHCs' functioning. Operation theatres, not used for a long time, suddenly became operational, while delivery and sterilisation services improved and the renovated centres started to attract more clients than ever before. Yet, it had not succeeded in altering the client composition of the centres. Only women, children and rural poor continued to utilise PHCs and it seemed that additional support was required to attract more users.

One state level officer stressed the positive development of community participation, made possible by the scheme, "*We have not seen this in the last 50 years*". The local implementation of the scheme was particularly interesting for the industry as an image

booster. State officials saw the public role in facilitating the industrial support,

“They (industry) want to do something for the people; this is a well-targeted investment with clear defined benefits.”

While almost everyone felt that the industrial adoption was a good scheme for the PHC, some officers were unhappy about the pace of the progress made so far. Despite all efforts, industrial response had been inadequate to make any significant impact on the PHCs' functioning. One officer even suggested that each new entrepreneur who sought license to start a business should be made to adopt a PHC in the respective locality for at least a specified period of time. It was considered that only if all firms would participate in the scheme it would really be sustainable, as expressed by a key state health functionary,

“The industry needs the local community support. Very often they try to link up with the local community and have difficulties. This policy provides them with an opportunity to do just that”.

Industry Managers

Industry managers considered the scheme as very positive for the rural community. Right from the start, they took much care to make sure the supported facility would ultimately be of benefit to the patient community. In effect they had turned down some requests from PHC staff for personal facilities. One manager related the story of a senior state health functionary who used the relationship to inquire for job opportunities in the industry for a relative, while the scheme seemed not to be a priority on the officer's agenda. The industrial officer regretted that this had been the attitude of many senior bureaucrats, showing a lack of spirit of serving the community.

Industry managers regarded the scheme as a continuation of activities as many had already been supporting patient care or community development for quite some time. They were glad that it was done in a more coordinated manner, thus they considered it as being a very real activity.

Community Leaders

Majority (61.5 per cent) of the rural community leaders interviewed had been using the PHCs for more than 5 years but only a few visited them frequently. The general impression was that the centres were of poor quality and they were not used. Many were not aware of the

industrial support scheme either because they had not visited the centre or because it was not really 'visible' to them. However, most community leaders believed that the industry would do a good job when given that task, particularly in view of the improving medicine supply to PHCs and overall administration.

Some of them, though not visited the centre, passed through them and so, some changes were visible to them. Benefits visible to them included the provision of more services, better-renovated delivery rooms, a special room for eye care, and drinking water facilities. Some of the leaders were aware of the instances when some companies sent their employees to offer blood to the needy patients. Some community members had the impression that often the benefits were only for the staff, others believed that the industry did this primarily for its own benefit and not for the people.

PHC Clients/Patients

On an average, an adopted PHC provided service to 123 clients (45.7 per cent women, 27.3 per cent children, and 27.0 per cent men). Clients sought care from the PHCs for cold/wheeze/headache (24.1 per cent), body pain (20.4 per cent), injury/wound (16.7 per cent), fever (13.0 per cent), skin allergy (7.4 per cent), non-communicable diseases (7.4 per cent), antenatal care (3.7 per cent), and others (7.3 per cent). They sought care from the PHCs because they are near (38.9 per cent), free (22.2 per cent), provide good care (20.4 per cent), private sector is too expensive (9.3 per cent), and for other reasons (9.2 per cent). Nearly 60.0 per cent of them used the PHCs for more than 5 years while 21.8 per cent started using the chosen PHCs very recently, 14.5 per cent used them for 2-3 years and the rest (5.4 per cent) used them for the last 4-5 years. Three-fourth of those who started using the PHCs recently shifted to these PHCs from another PHC (50.0 per cent) or from private health care centre (25.0 per cent). Additional facilities created through industrial participation were 'visible' only to 43.6 per cent of the clients.^e For the rest, the change was not visible. The most visible change noticed by the clients was the 'drinking water tank' followed by a new building, renovation of another building, and new furniture. The majority of those aware of the intervention regarded it as being beneficial for patients, and some even congratulated the local sponsor. Benefits considered as the most important by the patient clients included

^e All those accessing PHCs were pre-dominantly poor with the monthly family income of about Rs. 800/-. Majority of them (78%) are regular clients of the PHCs and traveled 1-10 km distance to access the PHCs.

- Drinking water
- Improvement of medicine supply
- Addition of new facility (pressure check up & eye care)
- Sitting place for patients
- Improvement and maintenance of infrastructure

Actually, from this list, the improvement in medicine supply was not due to the industrial support scheme, but due to another policy introduced about the same time (1997). Even those unaware of the policy believed that it would improve the functioning of the PHCs and ultimately benefit patients.

CONCLUSIONS

The policy of industrial partnership to re-activate PHCs in Tamil Nadu, although implemented through 'gentle coercion', seems to have brought in significant intangible and limited tangible benefits to the PHCs. There exists full support for the policy from all sides – government officials, industry managers, community leaders, PHC staff and patients. Each group expressed their desire to have the policy to continue for a longer period. Although the policy was a short-term measure or a one-time booster, in many places it made dramatic improvements in the range and quality of facilities to patients (mostly poor women and children). Yet, there is no guarantee that the support would continue. This uncertainty over the continuation of the support is a concern, as the ongoing support is important for the quality of care provided in PHCs in the future.

An overriding impression was that the entire policy was carried out through government coercion and hence, would cease to exist once the pressure is released. The Government administration, although supporting the scheme, is not fully cooperating with the industry, in as much as the policy is regarded as an industrial initiative. The government also had made a lot of promises at the time of the planning but none of them later materialised. Due to this, the industry started losing interest, as they were tired of going after government officials to seek the promised help, seemingly as if benefits for the industry were more important than those for the people.

The stakeholder view was that the successor government did not have the most enthusiastic feeling about the scheme since the opposition government had initiated it and its own scheme, 'Annathanam' (free food to religious devotees) needed some attention and

resources. Nevertheless, the successor government too wanted to somehow continue to support the scheme; above all it did not want to discourage willing industrialists. Now, the government has changed in the state and the present ruling party was in power when the scheme was first introduced. Hence, the scheme may get additional boost now.

Required Measures to Sustain the Policy

The overall positive impression by all stakeholders suggested that the scheme should be continued. This is one of the few activities in last 30 years or longer which really made a qualitative difference to the functioning of the PHCs. The renovated and improved centres and their enhanced utilisation stand in favour of the continuation of the policy. It is believed that better quality as a result of the partnership would draw people to the health care centres that are not currently used. However, one disadvantage of coercion is that the industry may not sustain the measures once the licensing process is completed.

While the advantages of the policy are real, though greatly intangible, the policy needs strengthening in its implementation. First, we must say that the gentle coercion is good for the overall welfare of the people and therefore, the government could continue to use the soft coercion so that the policy is sustained. In fact, one senior district level health functionary suggested that each new entrepreneur who sought a license to start business in Tamil Nadu should be made to adopt a PHC in the respective locality for at least a specified period of time. If each firm would come forward, then the policy would be sustainable.

Second, the partnership should be a two-way process. While the industry seems to have fulfilled its promises, the government failed to do so. There has to be a mechanism to follow up with the promises from the government side so that industry would show continued interest. This is absolutely essential because certain industrial support required complementary inputs from the government in the absence of which the entire exercise would be rendered meaningless.

Third, there is no local level coordination between the PHC and industrial partners. Government needs to find a framework under which both can cooperate with each other. Since the support extends beyond monetary and tangible measures, it is necessary for the local partners to have a good rapport between them. Support like blood donation by industrial workers, provision of industrial transport to the PHC staff to carry out certain public health tasks, and use of other industrial infrastructure for the health or health care benefit of local population can be better utilised if such rapport exists.

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