Symposium on Child Survival in India: Part I

Primary Health Care and Child Survival in India

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ABSTRACT

The Primary Health Care (PHC) has been globally promoted as a comprehensive approach to achieve optimal health status and 'Health for all'. The PHC approach, although, initially received the attention but failed to meet the expectations of the people in India. The child health programs in India had been started for long as verticals programs, which later on integrated and had been planned in a way to deliver the services through the PHC systems. Nevertheless, the last decade has witnessed many new initiatives for improving child health, specially; a number of strategies under National Rural Health Mission have been implemented to improve child survival- Skilled Birth Attendant and Emergency Obstetric Care, Home Based Newborn Care, Sick newborn care units, Integrated Management of Neonatal and Childhood Illnesses, strengthening Immunization services, setting up Nutritional rehabilitation centers etc. However, for a large proportion of rural population, an effective and efficient PHC system is the only way for service delivery, which still needs more attention. The authors note that although there have been improvements in infrastructure, community level health workers, and availability of the funding etc., the areas like community participation, district level health planning, data for action, inter-sectoral coordination, political commitment, public private partnership, accountability, and the improving health work force and need immediate attention, to strengthen the PHC system in the country, making it more child friendly and contributory in child survival, in India. **[Indian J Pediatr 2010; 77 (3): 283-290]** *E-mail: c.lahariya@gmail.com; ck1800@rediffmail.com*

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The World Health Assembly, taking note of the poor health status of the majority of world's population, especially the rural poor and increasing inequities in health, aimed to attain 'equal health status of people and countries along with an equitable distribution of health resources; launched a movement, named 'Health for All by year 2000' (HFA), in the year 1977.[1] This was followed by Alma Ata International Conference; where leaders of 134 countries and 67 other agencies signed a declaration, pledging support for the HFA and for implementing Primary Health Care (PHC) as the key strategy to achieve this goal.[2] The Millennium Development Goals (MDGs) is the most recent addition and goal 4 is on improving child survival.[3] The interventions for achieving MDGs have also been known and require multi pronged approach. There is a growing realization that the delivery of these interventions is not possible without an effective and functioning primary health care (PHC) system. India has built a network of primary health centres and community health centres across the country in the last 5 decades. Although, it is sometimes criticized for not meeting the standards of service delivery, it is an important point of health care access to more than 70% of the country's population, in rural India. In many parts of the country, PHC system is the only source of child health care. This article outlines the concept of PHC system, analyses why it failed to meet the expectations, what are the new initiatives, how the existing system can be best utilized for improving child survival, and identify the areas for action, to ensure optimal utilization of PHC system in India for achieving MDG 4.

Evolution of Primary Health Care (PHC) in India

The set up for PHC approach in India, had followed the Bhore Committee's recommendations of 1946.[4] The Primary Health Centres in the country had started as early as in 1952. After Bhore Committee and before Alma Ata Declaration, a number of other committees were constituted to improve the PHC delivary system in India.[5-8] These committees had given various recommendations, to ensure that these PHCs function well and health care delivery system in India is strengthened (Box I).

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Box I. Various Health Committees in Independent India:[5-8]

1962: Mudaliar Committee: "Health Survey & Planning Committee"
1963: Chada Committee: Committee on maintenance of national malaria eradication program
1965: Mukerjee Committee: Review committee on the family welfare program
1967: Jungalwalla Committee: "Committee on Integration of Health Services"
1973: Kartar Singh Committee: "Committee on multipurpose workers (MPW) under Health and Family Planning"
1975: Shrivastav Committee: "Group on Medical Education and Support Manpower"
1977; Rural Health Scheme:
1983: Krishnan Committee: Committee for revamping of urban health Care in India
1985: Bajaj Committee: Expert Committee on health manpower planning, production and management

Nonetheless, the Alma Ata conference served as a right catalyst and the subsequent work and published reports, strongly recommended that a majority of the health problems in India could be solved by a strong PHC system.[9-11] This formed the basis of the first National Health Policy (NHP) in India,[9-11] which echoed the government's commitment to the Alma Ata Declaration. The NHP of 1983's main objective was to provide universal and comprehensive primary health services to the population. It also defined specific time-bound goals for attaining HFA.[9] The PHC approach, as advocated by Alma Ata, is based upon the key principles of equitable distribution, universal access, community participation, intersectoral coordination and self-reliance, and appropriate technology[12] (also in box II). It has elements of a) Maternal and child health care, including family planning; b) Immunization against infectious disease; c) Promotion of food supply and proper nutrition; d) Adequate supply of safe water and basic sanitation; e) Prevention and control of endemic diseases; f) Appropriate treatment of common diseases and injuries; g) Provision of essential drugs; h) Education about prevailing health problems and their prevention.[13]

A look at these elements of PHC care, makes it clear that majority of these elements were intended to improve the health status of a community, with a specific focus upon the maternal and child health. As cited above and described in the other article of this series,[14] almost all child survival interventions are deliverable by the PHC system. However, the indicators on the child health, as reported by repeated surveys[15-17] find the poor coverage with these proven interventions. The Rural Health Statistics in India shows that till recently, the PHC infrastructure had been poor, restricted, ill equipped, and without the necessary manpower to deliver the services.[18]

Globally, it has been discussed that PHC had received less than desired attention due to many reasons. Unfortunately, despite the initial enthusiasm, soon after Alma Ata conference, which called for comprehensive approach, another approach 'selective primary health care' was advocated by the critics of the Alma Ata declaration, who argued that the 1978 Declaration was too idealistic and was having an unrealistic time-frame.[19] Then, it was suggested that the resources and the efforts should be focused upon vertical or selected interventions, based on technical justifications and cost-effectiveness analysis. This created a big confusion for the developing nations. The selective PHC approach, which seemed easily implementable, and had the scope of immediate results, was gradually accepted by the countries including India, and thus the movement for comprehensive PHC, lost the desired pace. Secondly, majority of the developing countries were dependent upon the external funding for the health programs and the donors were also interested in single point agenda and a more focused approach.

Box II: Principles of Primary Health Care[2, 26]

1. **Equitable distribution:** The first key principle of primary health care is equitable distribution of health services. It reads that the health services must be shared equally by all people, irrespective of their ability to pay, and all (rich or poor, urban or rural) must have access to health services. A commitment to health equity focuses not only on ensuring program inputs such as services and personnel based on need but also reducing the differences in health outcomes. An equitable health system ensures that the group or individuals with the most compromised health conditions receives more health services.

2. Community Participation: The process by which individuals and families assume responsibility for their own health and for those of the community and develop the capacity to contribute to their and communities development. They come to know their own situation better and are motivated to solve their common problems. This enables them to become the agent of their own development, instead of passive beneficiaries of development aid.

3. **Inter-sectoral coordination:** Simply expanding and developing health services can not achieve improvement in the health status of a population. The linkage between health and development has been demonstrated globally. The health development is increasingly becoming part of a strategy aiming at satisfying the basic needs of population by giving the poor, the access to resources and economic opportunities, raising education levels, ensuring availability and distribution of food, improving status of women, providing the basic infrastructure of transportation, improving the nutritional status and sanitation. The primary health care involves in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, communication and others.

4. **Appropriate technology:** Appropriate technology has been defined as a technology, that is scientifically sound, adaptable to local needs, and acceptable to those, who apply it and those for whom it is used and that can be maintained by people themselves, in keeping with the principle of self reliance, with the resources, the community and country can afford.

Thirdly, the different developmental agencies and the donors were still coming up with new ideas and approaches and also, they did not find themselves fit into the broader concept of comprehensive approach. And finally in India, the period of 1980-2000 witnessed major economic recession, reforms and political changes, and the effective political commitment and leadership could not be generated for the PHC approach. Although, the country had launched a series of health programs during this period,[14] including the programs for maternal and child health like Child Survival and Safe Motherhood (CSSM) and Reproductive and Child Health (RCH) programs, the commitment for comprehensive PHC approach was largely missing.

The year 2000, can be termed as 'watershed line', when with the revival of economy and relative political stability led to the formation of two major national policies in the subsequent 2 years: National Population Policy (NPP) in 2000 and Second National Health Policy (NHP) in 2002.[20, 21] The National Health Policy of 2002 was formed with an aim of ensuring equitable access to health services and, with an intention of increased allocation of resources to PHC. NHP-2002, also focused upon strengthening the decentralized public health system by establishing new infrastructure in deficient areas and upgrading existing institutions.[20] The ongoing programs also demanded for a strengthened delivery system and, the principles of PHC have been brought back to the forefront of health programs. Nevertheless, inspite of focussing upon the PHC, the system has not achieved the success for long, which it should have. The initial efforts in PHC had been on the infrastructure development and setting up the system in the entire country. The quality of the health service delivery remained poor, with limited funding for health and absentee doctors etc, which severely damaged the image of the PHC system in the country. It was not until 1990s when funding increased and the revival of the programs like Child Survival and Safe Motherhood (CSSM) and Reproductive and Child Health Program (RCH) brought the desired funding and catalytic effect to revive the PHC system in the country.

Are PHC reforms in second generation in India?

India launched the National Rural Health Mission (NRHM) in 2005.[22] NRHM is an umbrella health program aimed to bring fundamental architectural corrections in the Indian public health system; also envisages a synergistic primary health care approach for decentralized health management at the village and district level.[22] It can be said that NRHM brought the necessary political will, funding and desired direction to revive the system and the PHC system in India has witnessed a major shift in since NRHM. Although the foundation of these efforts were laid, much before NRHM, as a result of the overall economic growth in the country, resulting benefits to the health sector also. The following sections describe the actions taken by government of India in the field of primary health care in context of their effect on child health.

Equity: The equity or equitable distribution of health services implies, that the health services must be shared equally by all people, irrespective, of their ability to pay, and all (rich or poor, urban or rural, male or female) must have access to health services. The PHC definitely gets the credit for bringing the health services to the rural people, which were largely focussed for urban areas, till mid 70s. However, the situation was synonymous to 'something is better than nothing' as progress remained painfully slow. Some of the recent initiatives to increase equity in the health services delivery in the area of child health include, targeting of rural population especially, the disadvantaged groups as the primary beneficiary with special focus on women and children.[23] The RCH focus on Empowered action group and NRHM categorization of focus and non focus states, was to bring the equity in the health services. The operationalization of health facilities in remote areas; include reaching difficult areas through mobile medical units and outreach sessions, and the special schemes targeted for Below Poverty Line (BPL) families.[24]

Community Participation: The involvement of individuals, families and communities in the promotion of their own health and development, is an essential component of PHC. The community participate include formation of Village Health and Sanitation Committee (VHSC) with the power to spend untied funds; formation of *Rogi Kalyan Samiti's* to enhance community involvement in improving facilitybased care; decentralization and involvement of Panchayati Raj Institutions at various levels (from village to district level) for ownership of public health service delivery within their domain.[23-24].

Inter-sectoral coordination: The PHC concept has an important principle of inter-sectoral coordination, since the health of the community depends on the level of development in the social sectors also. Therefore, the PHC approach advocates that the health systems would have to coordinate and converge at multiple levels, with different sectors, to improve the economic status, education, status of women, availability of food, water and sanitation, basic infrastructure and transportation. The NRHM has made efforts to converge with different health related sectors through District Health Society, Village Health and Sanitation Committee, *Anganwadi* Centres and the collaboration with non-governmental and civil organizations, to supplement and strengthen health service delivery.

Community Based Health Worker: The concept of PHC had brought the Village Health Guides (VHGs) in India, in early 1980s.[25] However, the scheme disappeared as fast as it had been proposed and by mid eighties almost all

VHGs had become non functional. The role of community based workers has been well documented globally. The recruitment of Accredited Social Health Activist (ASHA) to act as interface between the community and health services[22, 23] is based upon those evidences and is also a revival of VHGs with the lessons learned from the implementation experiences from that scheme.[26] The states have been given the freedom for local innovations and the recruitment of ASHA's under slight innovations like Sahiyyas in Jharkhand,[27] and Mitanin in Chattisgarh,[28] which have come up recently.

The Recent initiatives in child Health through PHC

The recent initiatives in child health have necessary focus and realization, on the role of a strong PHC system, to improve child survival in the country. The RCH program initiated many efforts, though fragmented and too less, but provided the necessary platform on which NRHM could build. We summarize some of the new initiatives where PHC plays a role and which are still evolving in India. The major initiative taken to improve child healh in india are summarised below, it is to be noted that all these are being implemented through PHC system.

1. Essential newborn care (ENC): The RCH I focused on strengthening facility-based newborn care and the RCH II provided provision of ENC, irrespective of the place of delivery – home or facility.[29] The functioning primary health care facility and the availability of skilled attendance at birth and Emergency Obstetric Care (EmOC), have a huge potential to improve ENC and reduce neonatal deaths. The quality of facilities at PHC's and FRU's level still need major improvement as the skilled birth attendant (SBA) training does not adequately cover skills for newborn care, roll-out is slow, and there is shortage of necessary equipment at the facilities.

2. Home Based Newborn Care (HBNC): The Gadchiroli trial[30] has shown the usefulness of HBNC and the government has been implementing Community and Home based Post Natal Care (to both mothers and babies) through ASHAs, in selected districts of the 5 states. However, there are concerns regarding the impact, when an initiative is scaled up at a larger level. The capability of ASHA's to provide quality newborn care, is unknown. The quality of newborn services delivered in the community and home would be difficult to evaluate, in the absence of effective mechanisms for monitoring and supportive supervision in the field.

3. Facility Based Newborn Care (FBNC): Sick Newborn Care Units (SNCU) and Newborn corners are being established at district hospitals and CHC/PHC's, respectively, to provide quality care for the newborn babies referred from the community and sub-centres. The Purulia model of SNCU[31] has shown that how quality neonatal care can be given in a resource constrained environment and without high-tech equipments. However, the number of functioning SNCU's, in states with high NMR, are inadequate to meet the demand and the speed of expansion is also slow. There is also a requirement to standardize the norms (process guidelines, technical manuals), for facility-based treatment of the newborns.

4. Integrated Management of Neonatal and Childhood Illnesses (IMNCI): The IMNCI approach encompasses a range of interventions to prevent and manage major childhood illnesses.[32] The strategy includes 3 components of provision for both community and facility based care such as improved case management through up-gradation of skill; strengthening health care infrastructure; and improved household practices and community involvement. The IMNCI is currently being implemented in 193 districts and more than 70,000 personnel have been trained.[33] At the same time training modules, algorithms and operational guidelines have been developed and disseminated. In order to scale up the strategy, pre-service IMNCI has been introduced in 79 medical colleges to train future doctors. [34] Despite these actions, there is a concern that this approach focuses primarily on training of health workers, with limited effort to improve linkages to facilities, services, and community involvement. In-patient management of sick children is inadequate too. The entire process of saturating a district with IMNCI is lengthy and time consuming.

5. Immunization: As per NFHS 3[15] only 44% children aged 12-23 month were fully immunized. Trends in immunization over the last 15 yr[15-17] show an increase in the full immunization rate and individual antigen coverage rate (Fig. 1). There is still a long distance to cover in achieving control of other vaccine-preventable diseases (VPD) in the country. The major areas of concern in immunization program have been outlined in another article in this issue of journal.[35]

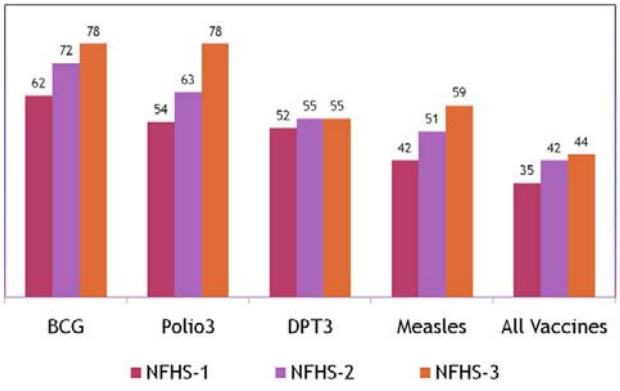

Fig. 1. Percent of children aged 12-23 month vaccinated

6. Infant and Young Child Feeding (IYCF): Child malnutrition is a matter of grave concern, as India is home to nearly 40% of world's malnourished children.[36-37]. Various steps have been initiated by the government to combat malnutrition – development of IYCF guidelines, revamping and universalization of Integrated Child Development Scheme (ICDS)[38] convergence of Mid-day Meal Scheme with rural and urban development, and establishment of Nutrition Rehabilitation Centers (NRC) for the management of severely malnourished children. The major concerns in this area are, that despite a number of nutritional and social safety net programs, decline in malnutrition has been excessively slow. The reason could be the absence of a comprehensive nutrition policy integrating all the programs and lack of coordination between the health and nutrition sector. The focus of the ICDS scheme is primarily on food supplementation, rather than family education and child rearing practices.

7. Cash incentives for institutional deliveries: The *Janani Suraksha Yojna* (JSY), though, more directly focused upon the reduction of maternal mortality, has indirect benefits on the child survival and can be utilized as a tool for continuum of care.[26] The detailed results and evaluations are awaited but it has been considered as one of the success stories in the implementation and has clearly increased the proportion of institutional deliveries, in so far, poor performing states of India. Furthermore, the transport mechanism used in the JSY scheme opened the gates for developing an effective referral mechanism in India. The referral transport used for JSY is also being used for the referral of sick children, by many states of the country.

DISCUSSION

By any measure, 3 decades are long enough for a program to mature. However, majority of the health (including the maternal and child health) programs in India have completed 2-3 decades but still demand a lot more to be done. Although, India was a signatory to Alma Ata declaration, the progress had been slow and the major efforts have come up only in the last decade. While the efforts in the areas of equitable distribution, use of community health workers, community participation and inter-sectoral coordination are continuing but lot more is desired even in these areas. Furthermore, the use of appropriate technology in health, data for decision making, and the district level planning etc., needs big impetus. We take examples of two easily deliverable interventions for child survival, to understand the problem, even for easily implementable solutions and then outline the areas for immediate actions in India.

The Acute Respiratory Infection (ARI) and diarrhea are the two leading causes of child mortality and morbidity in the country. The proportion of children with ARI or fever in the last 2 weeks, taken to a health facility or provider, is reported to be high.[15-16] However, Oral Rehydration Salt (ORS) for diarhoea and antibiotic use rate for ARI is poor (only 26%) and has even declined in some states.[14-17] The national programs for the control of these two illnesses had been implemented for more than 2 decades and the services are expected to be delivered through PHC. There is a lack of knowledge and awareness about the appropriate treatment and danger signs of these two illnesses at the community and peripheral health workers level. Though, diarrhoea guideline has been revised, orientation trainings have not rolled out. Zinc tablets to all cases of diarhroea are expected to be delivered through same mechanism. Similar is the story of prophylaxis programs for Iron and Vitamin A, as the coverage with both of these micronutrients has been low. The reasons varied from insufficient focus, inadequate supply, no clear policy guidelines, no corrective actions at field level following surveys *etc*.[39] All four interventions need strengthening of PHC with no other major change, but what needed most is strong political will, community participation and use of data for action.

The PHC approach was selective, transitional or comprehensive for many countries and there were equal proportions in all of these categories, which could and could not deliver results. The bottom line remained that the high mortality initially led to implementation of selective approach, which was transformed, as the mortality came down to the comprehensive approach (the so called diagonal approach.[40] India is at a stage where the country needs vigorous efforts to strengthen PHC system. Furthermore, the country can derive much from what has been done by Thailand and Indonesia in last four decades to overhaul and revamp the PHC system in those countries.[41] Prioritization of high effect interventions to start with, integrated service delivery and then building on each program is a possible approach.

The child survival interventions are many of the services delivered through PHC, however; discussion here focuses in context of improving child service delivery. The areas for immediate actions are:

- **Increase Community Participation:** This is one of the weakest links in PHC approach in India. It has been clearly documented that if a community rises to set priorities and acts accordingly, the progress may be slower but is more sustained than that achieved with commodity driven approach. The community and family empowerment, by building the capacity of the community in health promotion and the demand for care, is needed. The community participation means the entire process of information sharing, consultation, collaboration and taking full responsibility. India has provided the evidences of the possible role of community participation in child survival through Jamkhed Project and Gadchiroli model to the world, however, it has not been utilized for

policy making at the large scale (although, recent initiatives are the ray of hope). It is expected that the results of CHAMPION trial, Ekjut project and SNEHA project, will further add to the existing knowledge and understanding in India. The country is at advantage by having more than 700,000 ASHA workers in India, to further build and strengthen the community participation and mobilization. The Village Health and Sanitation Committee (VHSCs), strong *Panchayati Raj* Institutions (PRI) mechanism are the right fora, and the only need is for integrated efforts and strong political will.

• **Inter-sectoral coordination:** This is the second area for immediate attention. The programs having impact on child health are being run by different ministries (ministry of health, ministry of women and child development, ministry of human resource development etc.) with little coordination. The effective linkage between different ministries, non health sectors and community has been outlined in the NRHM, however, much more is needed on the ground than on the papers. The initiatives, like Village Health and Nutrition Days (VHNDs), under NRHM are good opportunities for the inter-sectoral coordination. However, informal reports about the performance of VHNDs are not very encouraging and need strengthening.[33]

• **Use of data for priority settings**: The country has very poor health management information system. The reports on the health status of the population reaches to the next level after months, and there is no comprehensive picture available for the country. There has been limited efforts for using data for public health actions and program management. The only district wise data available in the country is District Level Household Surveys (DLHS), which are conducted after every 4-6 year. Even that data is hardly of any use, as by the time the final analysis is done, 2 or 3 years pass and the situation in even those districts change. Our suggestion is that the country needs to invest in building a robust health data management system, which can be utilized for decision making and planning. In the mean time, the immunization coverage can be taken as a good dummy indicator of health system performance and also for the quality of data generated in the country.

• **District health management:** The success of PHC system implementation in many countries, specifically in Thailand and Tanzania[41] gave the importance to the district health management. In India, considering the size of the country, even the state specific health indicators mask the inter district differences. The district level planning produces results and the data at the district level can be utilized to track results, identifying and redressing disparities. The NRHM has focused on this aspect, still more is desired.

• **Political commitment:** The political commitment, in the form of funding and sustained efforts to the programs, can make huge differences. In the current decade, the possibility of PHC system delivering better child health services is much higher, than in 1970s. Earlier there were limited internal funds available for the health programs, which is not the scenario now and major part of it returns unused from the states. Secondly, the leadership and consistency in the policy making and the programs should not be put on the backburner or changed, just because there is change in the government at either national and state level. It is evident that accountable leadership and consistency in the national policy progress with timem can make health situation of the people better and the states like Bihar, Gujarat and Tamil Nadu are noticeable success stories.

• **Accountability to PRIs:** The formation of link between community and the primary health care is essential and requires clearly understood protocols which determine when the service of one or the other is required, when the patient should be referred to higher level care, aswell as functional communication, referral and supervisory system.[42] The *Rogi Kalyan Samitis* (RKS) at the PHC and CHC levels and the VHSCs at village level have been constituted, but their role needs to be strengthened. Many a times, PRI members want answerability from health functionaries, without actually being involved in the delivery of health services. The PRIs and civil society have to show ownership, involve the community to bring health care closure to the families.

• **Role of private providers and public private partnership:** This is clear now that a limited number of physicians and specialists are available in the rural parts of the country, and the situation is not going to improve, all of a sudden. The mechanisms like public private partnership, contracting of the health services, and working with profit organizations are the proven tools[43, 44] for child survival. Some States like, Gujarat (*Chiranjeevi* Scheme)[45] have taken lead in the initiatives and, other states and, national program managers need to further innovate in this area.

• **Addressing the need for human resources in health:** There is need for devising mechanisms and task shifting, from doctor to nurse and from nurse to community workers, from health professionals to lay providers, offers opportunities for expanding coverage and addressing human resource pitfalls. There has been lack of systematic planning, the investment in the supervision and on the job training, that should be incorporated in the policy making.

• **Health insurance for poor and children:** The care of sick children further impoverishes the poor, in rural India. While the health insurance schemes are being rolled out with limited acceptance by the community, it is the time that mid term health insurance linking care of the children, even at the possibility of no premium by the beneficiaries, through the PHC system, needs to be

explored and implemented.

CONCLUSION

The Primary Health Care has a definitive role in the delivery of child health strategies and interventions in India, since it is the only system capable of reaching to the millions of children in rural parts of the country. India with a wide network of PHC system, can utilize it for ensuring child survival, as outlined in this article. India's diverse child health problems, coupled with differential needs of population and health system capabilities requires a multi-pronged approach, based on the principles of PHC. The sustained political will, better community participation, specially the role of PRIs in health planning, inter-sectoral coordination including those of private practitioners in the rural area and the non government organization, besides various ministries and departments working in the field of child health, strengthened district level health planning, and the use of data for action, are some of the areas for strengthening the PHC system and ensuring the child survival in the country.

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