Coordination of frontline workers for
improving the health of children in
Rajasthan (India): a case study

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Reetu Sharma, Nuffield Department of Population Health and St. Cross College
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ABSTRACT

All governments aim to ensure better health and nutrition to children. The Rajasthan state (India) has implemented a unique frontline coordination model where Accredited Health Social Activist (ASHA) Sahyoginis are expected to support two other frontline workers (FLWs) i.e. the Anganwadi Workers from the Integrated Child Development Services and the Auxiliary Nurse Midwives from the Health department to improve child health.

This thesis focuses on examining the existing coordination between the three groups of FLWs in Rajasthan by exploring FLWs' participation in child immunisation and Vitamin A supplementation (two common activities), service coverage and beneficiary's knowledge (expected outcomes), and the challenges faced and areas that need improvement for better frontline coordination.

A mixed methods design was used. Sixteen villages from two blocks (tribal and non-tribal) of Udaipur district (Rajasthan) were selected using multistage purposive sampling. The formative stage included 12 FLWs' in-depth interviews (IDIs) as well as a review of FLWs' job descriptions to understand the process and government expectations on their participation in routine childhood immunisation, polio camps, routine Vitamin A supplementation and Vitamin A campaigns. The next stage included data collection from the 16 selected villages i.e. structured questionnaire survey of FLWs (46), observations of Maternal and Child Health and Nutrition Day (16), review of FLWs' immunisation and Vitamin A registers (32) and a structured questionnaire survey of registered infants' mothers (321)-all to ascertain the actual participation of FLWs in these four activities and the outcomes. IDIs with FLWs (46) and FLWs' line managers (17) were conducted to understand their experience, issues and solutions for better frontline coordination.

The participation of FLWs in three of the four activities (except Polio Camps) was found to be limited. The FLWs and their line managers were also dissatisfied with coordination between FLWs. Poor outcomes also indicated unsatisfactory coordination. Overall, frontline participation and outcomes were better in tribal than non-tribal villages. A variety of factors (i.e. personal, professional, organisational, and geo-socio-cultural) appeared to affect coordination between FLWs.

Appropriate recruitment, training, monitoring and supervision and rewards to the FLWs along with greater political commitment for coordinated approached and addressing intra-departmental challenges are proposed to improve frontline coordination and child health in Rajasthan.

Total Word Count of the Thesis (excluding bibliography and appendix) = 49,762
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<td>AWC</td>
<td>Anganwadi Center</td>
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<td>Anganwadi Worker</td>
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<td>ANC</td>
<td>Antenatal Care</td>
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<td>ANM</td>
<td>Auxiliary Nurse Midwife</td>
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<td>ASHA</td>
<td>Accredited Social Health Activist</td>
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<tr>
<td>BCC</td>
<td>Behavioural Change Communication</td>
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<td>BCG</td>
<td>Bacillus Calmette-Guérin</td>
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<td>BMO</td>
<td>Block Medical Officer</td>
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<td>CDPO</td>
<td>Community Development Project Officer</td>
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<td>CMHO</td>
<td>Chief Medical and Health Officer</td>
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<td>CMO</td>
<td>Chief Medical Officer</td>
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<td>CMR</td>
<td>Child Mortality Rate</td>
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<td>CRM</td>
<td>Common Review Mission</td>
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<td>CSSM</td>
<td>Child Survival and Safe Motherhood Programme</td>
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<td>DGHS</td>
<td>Director General of Health Services</td>
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<td>DPT</td>
<td>Diphtheria, Pertusis, Tetanus</td>
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<td>Department of Health and Family Welfare</td>
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<td>DWCD</td>
<td>Department of Women and Child Development</td>
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<td>FLW</td>
<td>Frontline Workers</td>
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<td>GoI</td>
<td>Government of India</td>
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<td>HDR</td>
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<td>IMR</td>
<td>Infant Mortality Rate</td>
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<td>LS</td>
<td>Lady Supervisor</td>
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<td>LHV</td>
<td>Lady Health Visitor</td>
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<td>MCHN</td>
<td>Maternal and Child Health and Nutrition</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>MO</td>
<td>Medical Officer</td>
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<td>Acronym</td>
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<td>MHFW</td>
<td>Ministry of Health and Family Welfare</td>
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<td>MWCD</td>
<td>Ministry of Women and Child Development</td>
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<td>NFHS</td>
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<td>NHP</td>
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<td>SC</td>
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<td>SDR</td>
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<td>118</td>
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<td></td>
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CHAPTER 1

THE INTRODUCTION OF COORDINATION BETWEEN TWO MATERNAL AND CHILD HEALTH PROGRAMMES AND THEIR ASSOCIATED FRONTLINE WORKERS IN INDIA AND RAJASTHAN
1.1 Child Health: the global and the national (Indian) concern

The health and nutritional status of children in any country indicates its status of development\(^1\). The United Nations Secretary-General Ban Ki-Moon in World Food Security Summit (2009) said that the world loses one child every five seconds due to lack of food and nutrition\(^2\). A report in the Times of India (the leading national daily newspaper) said that about 75 per cent of the total 7.6 million of the worlds' children die of infectious diseases\(^3\). The United Nations Childrens' Fund(UNICEF) report on the State of Worlds' children (2008) stated that about 26000 of the worlds' children under the age of five years die every day due to preventable causes such as infectious diseases, malnutrition, unavailable and inaccessible health services, poor water and sanitation conditions\(^4\). Pointing at multidimensional causality of poor health and nutritional status of children, this report states that poor public health infrastructure and services are predominantly a characteristic of low income countries. The report states that such countries bear the major burden of child mortality\(^5\).

India is classified as one of the lower-middle income countries according to World Banks' classification of countries on the basis of Gross National Income in 2011\(^6\). India constitutes 17.5 per cent of worlds' population and 13 per cent of this population in India consists of children below the age of six years\(^7,8\). With 158 million children in this age group, India accounts for the largest number of deaths of children (up-to five years of age) per year in the world\(^9\). The Child Mortality
Rate (CMR) and the Infant Mortality Rate (IMR) of India were reported to be 59 and 57 in 2010\textsuperscript{10}.

India conducted three rounds of National Family Health Surveys (NFHS) in 1992-93, 1998-99 and 2004-05 and the last one quoted in a report by Ministry of Health and Family Welfare (MHFW), Government of India (GoI) that the majority child deaths occur during infancy\textsuperscript{11}. Health and nutritional status are two strong determinants of child survival\textsuperscript{12}, and NFHS III found that only 44 per cent of children (12-23 months of age) in India are fully immunised\textsuperscript{i}, which partially explains the problem of high infant and child mortality in the country\textsuperscript{13, 14}. The survey also showed that 43 per cent of the children less than five years of age were underweight and about 70 per cent anaemic\textsuperscript{15}. In addition, the state of childrens' health and nutrition varies between states and urban, rural and tribal communities\textsuperscript{16}.

India is one of the 189 countries that signed the commitment to achieve the Millennium Development Goals (MDGs) drafted by United Nations Development Group. This included reduction of CMR to 42, IMR to 27 and increased immunisation coverage (measles) to 89 per cent by 2015\textsuperscript{17}. To address these targets, GoI used the existing maternal and child health programmes along with introducing reforms in the overall health system\textsuperscript{ii} in the country.

\textsuperscript{i}Full or complete immunisation covers a child with BCG (Bacillus Calmette-Guérin), DPT I, II and III (Diphtheria, Pertusis, Tetanus), OPV I, II and III (Oral Polio Vaccine) along with Measles vaccines and 1st dose of Vitamin A by the age of 9-12 months.

\textsuperscript{ii}WHOs' definition of health system counts all organisations, institutions and resources whose primary purpose is to improve peoples' health as a part of health system. All of these are said to need staff, funds, other logistics, information, communication, transport, policy and guidance (http://www.who.int ).
1.2 Evolution of the Reproductive and Child Health (RCH) programme and Integrated Child Development Services (ICDS) programmes in India

The health service system in India is funded and administered by MHFW—the national government body. India has 29 states and the health service system at state level is managed by Department of Health and Family Welfare (DHFW).

India has a history of national programmes that aim to address child health and nutrition issues. Fig. 1.1 presents a chronological summary of some of them. The majority of these programmes were initiated by MHFW except for the Integrated Child Development Services Scheme (ICDS) that was funded and administered by another body-The Ministry of Women and Child Development (MWCD) at the national level and the Department of Women and Child Development (DWCD) in the states.

About the MHFW initiatives, the National Family Planning Programme (NFPP) was renamed as National Family Welfare (NFW) programme that focused on

---

iii According to WHO, a system that offers any service that aims to contribute to improved health, diagnosis, treatment and rehabilitation of the sick and at risk population is called a Health Service System (http://www.who.int/healthsystems).
maternal and child health issues along with family planning services\textsuperscript{18, 19}. The Universal Immunisation Programme (UIP) aimed to protect children from six vaccine preventable diseases\textsuperscript{20, 21}. The Child Survival and Safe Motherhood programme (CSSM) also focused on maternal and child health issues. After CSSM and as a result of the United Nations' International Conference on Population and Development (ICPD) held in 1994 at Cairo, the Reproductive and Child Health (RCH) programme was launched\textsuperscript{22, 23}.

The RCH programme was launched prior to the MDGs\textsuperscript{24}. The programme was implemented in two phases i.e. RCH-I (launched in 1997) and RCH-II (launched in 2004)\textsuperscript{25}. It aimed to reduce maternal and child mortality, morbidity and the birth rate in India. It covers pregnant and lactating women (15-49 years of age), children, adolescent girls and eligible couples. The programme service package includes:

1. Antenatal, perinatal and postnatal care,
2. Medical termination of pregnancy,
3. Family planning,
4. Newborn and child care with immunisation, disease and infection management,
5. Micronutrient supplementation (Iron, Iodine and Vitamin A).

The programme structure and functions (planning, administration and implementation) are organised from national to village level with dedicated personnel at each level to perform these roles. Table 1.1 explains the programme hierarchy, key personnel and their functions.
At the village level, the Auxiliary Nurse Midwife (ANM)-a female frontline worker (FLW) with a minimum of 10 years of formal school education is selected, trained, supervised and paid a monthly salary by the Health department\textsuperscript{32}.

The ICDS programme of MWCD, launched in 1975 is the largest food supplementation programme for children in the world\textsuperscript{33,34,35}. Though focused on children, the programme takes a life cycle approach by catering to the health and

\begin{table}
\centering
\caption{Structural and operational components of RCH programme\textsuperscript{26}}
\begin{tabular}{|c|c|c|c|}
\hline
\textbf{Levels} & \textbf{Institution} & \textbf{Key Personnel} & \textbf{Roles and Responsibilities} \\
\hline
National & Ministry of Health and Family Welfare (MHFW) & Union Minister and the team & Policy, Planning and Review \\
\hline
State & Department of Health and Family Welfare (DHFW) & State Minister and the team & Policy, Planning, Administration, Monitoring and Review \\
\hline
District & District Hospital and Administrative Office (Each District to have at least one District hospital\textsuperscript{33}) & Chief Medical and Health Officer (CMHO) & Planning, Administration, Monitoring and Review \\
\hline
Block & Community Health Centre (CHC) \hspace{1cm} (About 0.1 million population\textsuperscript{28}) & Chief Medical Officer (CMO) & Planning, Administration, Monitoring and Supervision \\
\hline
Sector & Primary Health Centre (PHC) \hspace{1cm} \{1/20000 in tribal and 30000 in non-tribal(rural) population\textsuperscript{29}\} & Medical Officer (MO) & MO-Clinical work, guidance, monitoring and supervision of LHV and ANM \\
& & Lady Health Visitor (LHV) & LHV-Clinical work, guidance, monitoring and supervision of 3-5 ANM \\
\hline
Cluster of 3-5 villages & Sub-centre\textsuperscript{30} (SC) \hspace{1cm} \{1/3000 in tribal and 1/5000 in non-tribal(rural) population\textsuperscript{31}\} & \textbf{Auxiliary Nurse Midwife (ANM)} & Deliver programme services in about 3-5 villages at the Sub-centre and through outreach \\
\hline
\end{tabular}
\end{table}

\textsuperscript{iv}A Sub-centre is the most peripheral institution of health department that provides first point of contact for the people to interface with the Health department. It is the part of primary health care system in India.
nutrition needs of adolescent girls, pregnant and lactating women and children up-to six years of age\textsuperscript{36}. Since the programme aims for a better psychosocial and physical development of children, the services offered by it, i.e. in the health, nutrition and education areas overlap services also offered by other government programmes such as RCH. The six key ICDS services are

1. Supplementary nutrition,
2. Pre-school education,
3. Growth monitoring,
4. Health and nutrition education,
5. Health checkups and immunisation and
6. Referrals of those with disease to the appropriate health institutions.

The programme reached about 96 million women and children through supplementary nutrition and about 37 million children (three to six years of age) through pre-school education in 2011\textsuperscript{37}. The programme structure and functions (planning, administration and implementation) are organised from national to village level with dedicated personnel at each level to perform these roles. Table 1.2 explains the hierarchy, key personnel and their functions.
At the village level, the *Anganwadi* Worker (AWW) is the local village woman with a minimum of five years of formal education (varies in states) selected by the ICDS block level committee and trained, supervised and paid a monthly honorarium by the ICDS\(^{42,43}\).

### Table 1.2: Structural and operational aspects of the ICDS programme\(^{38}\)

<table>
<thead>
<tr>
<th>Levels</th>
<th>Institution</th>
<th>Key Personnel</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>Ministry of Women and Child Development (MWCD) Office</td>
<td>Union Minister and the team</td>
<td>Policy, Planning and Review</td>
</tr>
<tr>
<td>State</td>
<td>Department of Women and Child Development (DWCD)</td>
<td>State Minister and the team</td>
<td>Policy, Planning, Administration, Monitoring and Review</td>
</tr>
<tr>
<td>District</td>
<td>District ICDS Office</td>
<td>Project Director (PD)/Deputy Director (DD)</td>
<td>Planning, Administration, Monitoring and Review</td>
</tr>
<tr>
<td>Block/Project</td>
<td>Block ICDS Office</td>
<td>Child Development Programme Officer (CDPO)</td>
<td>Planning for field implementation with 4-5 Sector level Lady Supervisors, Monitoring and Supervision(^{39})</td>
</tr>
<tr>
<td>Sector</td>
<td>No Stationary Office, Block/Village institution used</td>
<td>Lady Supervisor (LS)</td>
<td>Each Supervisor to Guide and Supervise about 17 (Tribal) to 20 (Non-tribal/Rural) AWWs(^{40})</td>
</tr>
<tr>
<td>Village</td>
<td><em>Anganwadi Centre</em> (AWC) ({1/700) population in Tribal and 1/1000 in Non-tribal(Rural) areas(^{41})}</td>
<td><em>Anganwadi Worker</em> (AWW)</td>
<td>Deliver Programme services at the AWC and through outreach</td>
</tr>
</tbody>
</table>

1.3 Transition from "independent" to "coordinated" programme framework

The history of the Indian health service system suggests that the idea of inter-sectoral and inter-departmental coordination was always promoted in Indian health policy and planning forums. Since India's independence, various health committees that contributed to designing the Indian health service system echoed the fact that

\(\text{\textsuperscript{*}}\)An *Anganwadi* means a "courtyard" and the *Anganwadi* centre is an institution located within the village that acts as a play school, learning centre and point of delivery of many Health and ICDS programme services to their beneficiaries.
health outcomes are not only determined by the health service system but also by multiple factors managed by a range of other sectors, programmes and departments.

The first such committee-Bhore Committee (1946) identified uncoordinated efforts between the Health, Food and Nutrition and other departments resulting in high infant and maternal mortality and morbidity in India\textsuperscript{44}. It proposed an integrated, comprehensive primary health care system with inter-sectoral coordination to ensure a healthy society. Various other national health committees-Mudaliar (1961), Mukherjee (1965), Junglewala (1967) and Kartar Singh (1973) also emphasized the need for greater inter-sectoral coordination\textsuperscript{45, 46, 47, 48}.

Until 2005, the RCH programme from health sector and the ICDS programme from nutrition and welfare sector lacked formal mechanisms for coordination and hence their coordination was \textit{adhoc} rather than systematic. As a part of the health sector reforms, MHFW in 2005 launched National Rural Health Mission (NRHM) that aimed to improve the availability, access to and quality of health care, especially in rural areas to the poor, women and children\textsuperscript{49, 50, 51, 52, 53}. One of the objectives of NRHM was to identify and reduce intra-sectoral problems and promote inter-sectoral coordination to achieve public health goals.

To achieve this, NRHM proposed many architectural changes within and beyond the health service system. As part of intra-sectoral coordination, integration of all vertical national health programmes including RCH under the single umbrella of
NRHM was proposed to reduce duplication, inefficiency and lack of sustainability and promote joint service delivery of all programmes by common Health department systems\textsuperscript{54,55}.

As part of the inter-sectoral coordination, it proposed the coordination of the health sector with other aligned sectors that contribute to public health goals e.g. nutrition, water, sanitation, education and rural development. With special reference to maternal and child health, it proposed the coordination of the RCH programme of the Health department with the ICDS programme of DWCD at all levels\textsuperscript{56}.

1.4 **Inter-sectoral coordination following NRHM proposal**

To promote inter-sectoral and inter-programme coordination, NRHM proposed various mechanisms for different levels (national, state, district, block, sector and village) between MHFW and MWCD. From national to district level, joint policy, programme review and planning were promoted by setting up policy and programme coordination groups and state and district health planning societies\textsuperscript{57}. At the block level, a block coordination committee is set up in some states\textsuperscript{58,59}. The mechanisms for village level coordination included: 1) appointment of an Accredited Health Social Activist (ASHA); 2) setting up a Village Health and Sanitation Committee (VHSC); and 3) organizing a Village Health and Nutrition Day (VHND) or Maternal and Child Health and Nutrition Day (MCHN day) in each village.
Who is an ASHA? : An ASHA is a female community health volunteer identified and posted in each AWC village to serve the health needs of population. NRHM proposed that each village/AWC must have one ASHA for which one woman should be selected and appointed from each village as an ASHA to bridge the gap between the ANM who serves 3000-5000 population and the village community for improving service demand, outreach and coverage. ASHA functions include support to the ANM, awareness generation and mobilizing community to seek available health services. Before NRHM these supportive functions were delegated to the AWWs of ICDS. While these functions are still found in the AWW’s job description after NRHM they are now delegated to the ASHA.60. Thus with the introduction of ASHAs, there are three groups of FLWs (ANMs, ASHAs and AWWs) to oversee the health and nutritional needs of the village population, especially mothers and children61. Table 1.3 presents some characteristics of these the three groups of FLWs.
**Table 1.3: Characteristics of three FLWs aligned with two national programmes**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>(RCH) NRHM</th>
<th>ICDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANM</strong></td>
<td>ASHA</td>
<td>AWW</td>
</tr>
<tr>
<td>Sex</td>
<td>F Female</td>
<td>Female</td>
</tr>
<tr>
<td>Residence with respect to the area of work</td>
<td>Usually from outside the villages they serve</td>
<td>Must be from the village they serve</td>
</tr>
<tr>
<td>Formal School Education</td>
<td>At least 10 years</td>
<td>At least eight years</td>
</tr>
<tr>
<td>Selection and appointment by</td>
<td>Health Department</td>
<td>Gram Sabha (Panchayat), Health department officials, Block ICDS Committee</td>
</tr>
<tr>
<td>Employment status</td>
<td>Health Department Employee</td>
<td>Community Volunteer, Community based worker</td>
</tr>
<tr>
<td>Induction Training</td>
<td>18 months</td>
<td>24 days</td>
</tr>
<tr>
<td>Population coverage</td>
<td>3000-5000</td>
<td>700-1000</td>
</tr>
<tr>
<td>Nature and amount of payment against work/month (₹)</td>
<td>Salary (6000-25000)</td>
<td>Performance based incentive (450-1500)</td>
</tr>
<tr>
<td>Supervisor/s</td>
<td>Lady Health Visitor (LHV)</td>
<td>PRI, LHV, ASHA facilitators</td>
</tr>
</tbody>
</table>

**What is VHND/MCHN day?:** Considering the availability of ICDS’ AWC as a formal institution in each village and its proximity to the village residents, the Health department promoted the concept of joint service delivery of the two programmes once every month. Thus VHND/MCHN day is usually organised on one day (e.g. Thursday in Rajasthan state of India) of each month at each AWC by the ANM, AWW and ASHA to jointly deliver all health (especially RCH programme related) and ICDS department services to the beneficiaries in each village.

**What is a VHSC?** : To facilitate joint health planning with community participation at the village level, NRHM proposed the constitution of VHSCs in

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6The village level elected body of representatives is called the Panchayat and the head of this committee is called the Sarpanch. The Panchayat/Panchayat Raj Institution (PRI)is the mechanism of local governance that promotes decentralised planning, implementation and monitoring of various government programmes where people participate in decision making and seeking accountability from the system. The Gram Sabhas are the periodic meetings convened by the Panchayat where all the villagers also participate.
each village. The committee is expected to meet every month to review the progress of various public health programmes (including RCH and ICDS) running in the village and plan accordingly. The participation of the three groups of FLWs in these meetings along with community representatives is compulsory. Table 1.4 presents the summary of NRHM proposed inter-sectoral coordination mechanisms as mentioned above.

<table>
<thead>
<tr>
<th>Levels</th>
<th>MHFW (RCH-NRHM)</th>
<th>MWCD (ICDS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>Health Policy Population Policy</td>
<td>Convergence Policy Group (Function-Policy and Advice)</td>
</tr>
<tr>
<td></td>
<td>Union Minister and Team</td>
<td>National Steering Committee National Programme Coordination Committee (Function-Periodic review and updates)</td>
</tr>
<tr>
<td>State</td>
<td>State Minister and Administrative Team</td>
<td>State Health Mission, State Health Society State Steering Committee State Convergence Committee (Function-Periodic review and updates)</td>
</tr>
<tr>
<td>District</td>
<td>Chief Medical and Health Officer (CMHO)</td>
<td>District Health Mission District Health Society (Function-Joint review and planning)</td>
</tr>
<tr>
<td>Block</td>
<td>Chief Medical Officer</td>
<td>Block level coordination committee (Function-Joint review and planning)</td>
</tr>
<tr>
<td>Sector</td>
<td>Primary Health Centre Medical Officer Lady Health Visitor</td>
<td>Accredited Health Social Activist (ASHA) Village Health and Nutrition Day (VHND) Village Health and Sanitation Committee (VHSC) (Function-Joint planning, implementation, and review)</td>
</tr>
<tr>
<td>Village</td>
<td>ANM</td>
<td>AWW</td>
</tr>
</tbody>
</table>

Table 1.4: NRHM proposed coordination mechanisms between Health and aligned departments
As a result of this, after 2005 the coordination mechanisms between the Health department\textsuperscript{vii} (RCH/NRHM) and ICDS at the village level were comparatively more organised. The majority of Indian states that adopted NRHM implemented the above mentioned NRHM proposed village mechanisms. The following section explains the unique coordination model adopted by Rajasthan which makes it an interesting case study.

1.5 Health (RCH/NRHM) and ICDS programmes' frontline coordination in Rajasthan

Rajasthan is a north-western state of India that has a population of 68 million, of which 75 per cent reside in the rural areas\textsuperscript{72} (Fig.1.2). Sixteen per cent of this rural population, that includes tribal and non-tribal groups, are children up-to six years of age- the focus of both RCH and ICDS programmes\textsuperscript{73, 74}. The state had an IMR of 63 against the national

\textsuperscript{vii}Programmes” are the part of a "Department" that is the part of a larger "Sector". Since the term "sector" includes multiple stakeholders (government and non-government) and institutions that provide health and nutrition services to mothers and children, this study will restrict the use of this term and rather use "department" and "programme" to specifically address the coordination between two national government programmes i.e. RCH (which is under governments’ health department of health sector) and ICDS (which is under governments' WCD department of social welfare and nutrition sector).
average of 57 and under-nutrition (underweight) in 44 per cent of children against the national average of 43 per cent in 2005-06. This makes it one of the eight high focus states\textsuperscript{viii} for NRHM implementation\textsuperscript{75, 76, 77, 78}. It was ranked 17th on the human development index\textsuperscript{ix} (HDI) of all the 29 states in India in 2007-08\textsuperscript{79}. It has a combination of tribal and non-tribal population, where the tribal population constitutes 12.6 per cent of the total state population\textsuperscript{80}. The language used by a majority of the population in the state is "Hindi".

Prior to NRHM, the state implemented the ICDS and Health departments' RCH programmes like any other state with \textit{adhoc} systems of coordination between the two. Unlike other states, the ICDS programme of Rajasthan, realised the need for an additional FLW to support the ICDS's AWW for improving its programme outreach even before NRHM. Hence the state government appointed a \textit{Sahyogini}-a female community worker at each AWC to support the AWW of ICDS. In 2005 the ASHA concept of NRHM was thought to be a duplication of ICDSs' \textit{Sahyogini} functions in the state. Hence the ICDS and Health departments merged the roles of ASHA and \textit{Sahyogini} and appointed only one FLW instead of two and named her "ASHA-\textit{Sahyogini}". This new FLW was given the responsibility of supporting both-the AWW and the ANM

\textsuperscript{viii} The NRHM focuses on 18 states that have weak public health indicators and/or weak infrastructure i.e. Orissa, Rajasthan, Madhya Pradesh, Jammu and Kashmir, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Uttarakhand and Uttar Pradesh, Arunachal Pradesh, Assam, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim, Tripura (NRHM Mission Document, 2005).

\textsuperscript{ix} Human Development Index: This is a composite indicator to assess and compare the human development in and between regions such as countries, states within country. It takes Health (Life expectancy at birth), Education (Literacy) and Income into account.
in the state. Table 1.5 presents a comparison between ASHA *Sahyogini* of Rajasthan and ASHA of other states in India.

<table>
<thead>
<tr>
<th>States</th>
<th>Rajasthan</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td>ASHA <em>Sahyogini</em></td>
<td>ASHA</td>
</tr>
<tr>
<td><strong>Departments</strong></td>
<td>ICDS and Health Department (NRHM)</td>
<td>Health Department (NRHM)</td>
</tr>
</tbody>
</table>
| **Selection Criteria** | • Female  
• Resident of the village she serves  
• Daughter in-law of the village  
• At least eight years of formal education | • Female  
• Resident of the village she serves  
• Daughter in-law of the village  
• At least eight years of formal education |
| **To be selected by** | *Gram Sabha* (Panchayat), ICDS, Health and rural development officials | *Gram Sabha* (Panchayat), Health department officials |
| **Employment status** | Community Volunteer | Community Volunteer |
| **Induction Training** | ICDS-7-17 days, Health (NRHM)-24 days | 24 days |
| **Population coverage** | 700-1000 |
| **Nature and amount of payment against work/Month (₹)** | ICDS- Honorarium (500-1000), RCH (NRHM)- Performance based incentive (450-1500) | Performance based incentive (450-1500) |
| **Attendance** | Daily attendance at AWC | Daily attendance at AWC |
| **Function** | Support AWW, Support ANM | Support ANM |
| **Supervisor/s** | PRI, LHV, LS, ASHA Supervisors | PRI, LHV, ANM |
| **Monthly Reporting** | ICDS Sector meetings, Health department PHC meeting | Health department PHC meeting |

In Rajasthan, the ASHA *Sahyogini* has to be jointly selected, trained, supervised and paid by the two departments (Health and ICDS). She is expected to participate in MCHN days and VHSC meetings apart from monthly sector level supervisory meetings with both the ICDS and Health departments. Such unique frontline coordination set up where the three groups of FLWs are expected to work jointly and address common programme goals despite various inter-personal and inter-

*₹* is the symbol used to represent Indian currently i.e. Rupee
professional differences (Table 1.3), led to the interest in understanding their joint work and coordination. Furthermore, the presence of tribal and nontribal population groups and the majority of the population being Hindi speaking made tribal and non-tribal group comparison and qualitative study feasible in Rajasthan.

1.1 Thesis Overview

In India, the recent policy debates are considering the introduction of additional FLWs to improve service outreach and coverage of various health aligned programmes (including RCH and ICDS) for reducing IMR, child under-nutrition and the CMR\textsuperscript{94,95}. However, there has been limited research with respect to what is affecting the performance (especially joint performance) of the existing three groups of FLWs who are expected to jointly improve the programmes' outreach, demand and outcomes. Limited research has been undertaken to understand the operational challenges of proposed coordinated approaches.

This thesis focuses on examining the existing state of coordination between the three groups of FLWs, the challenges faced and areas that need improvement. The thesis will do this first by gaining an understanding through a literature review of the concept of coordination by exploring its meaning, purpose and theoretical perspectives. It will then examine the existing evidence on frontline coordination in these two national programmes and identify if any research was undertaken in relation to this, especially in relation to coordination of FLWs in these two programmes. (Chapter 2)
Next, using a mixed methods design the thesis will collect and analyse data from FLWs, mothers of children up-to one year of age and from site observations to gain an understanding of whether coordination between FLWs is appropriate. This will be done by analysing FLWs' participation and associated outcomes in two joint ICDS-Health (RCH) departments' areas of focus i.e. child immunisation and micronutrient supplementation. (Chapter 3 and Chapter 4)

Following this, a qualitative study with the FLWs will explore their experience of joint working and their perceived barriers to coordination and effective joint working. The study will also explore coordination between the frontline workers and perceived barriers from the line managers associated with the ICDS and Health departments and seek suggestions for improvement from both groups of respondents. (Chapter 5)

The final chapter will summarise the findings which will be discussed with their limitations and implications for change in practice and policy. Recommendations will be made for further areas of research. (Chapter 6)

In short the thesis examines frontline coordination in relation to child health and nutrition in Rajasthan from three angles i.e. "FLWs' participation in selected joint activities", "work relationships between FLWs" and "knowledge and service uptake by programme beneficiaries on selected joint services as outcomes linked with the FLWs' coordination". The results will inform the policy makers about the current
state and real time issues faced by FLWs in joint working that influence the common outcomes. This will help policy makers rationalise and prioritise amongst the corrective strategies to improve ICDS -Health departments' coordination.
CHAPTER 2

UNDERSTANDING COORDINATION FROM THE EXISTING LITERATURE
2.1 Introduction

The literature related to policy and the programmes was reviewed to understand the operational aspects of the two national programmes and the logistics of the inter-programme coordination. To establish theoretical understanding of the concept of coordination, it was important to review literature from a range of disciplines.

2.2 Objectives of the literature review

To understand:

- the concept of coordination by exploring its meaning, purpose and theoretical perspectives
- the institutional (policy and programme) context in which the ICDS and Health department aim to coordinate
- the existing evidence on frontline coordination between the ICDS and Health department in India

2.3 Methodology

The literature review was done in three phases.

1. The literature on ICDS and RCH (NRHM) programmes was reviewed to understand the operational aspects of the two programmes and their coordination. This literature was limited, with little clarity on the meaning, rationale and the overall concept of coordination.

2. A review of literature from a range of disciplines (health, social, behavioural and management sciences) was, therefore, undertaken to understand the
concept, rationale and theoretical approaches on coordination. This helped to conceptualise "coordination" and identify some key characteristics that determine the success or failure of any coordination.

3. Informed by this the literature, the two programmes and related policies were revisited to understand the aspects of coordination between the two programmes and their frontline workers.

4. Existing research studies with evidence on coordination between the two programmes and their frontline workers were reviewed.

Thus the overall review included three types of literature.

1. Official Indian government literature on the policy and the two programmes available mainly in the form of government orders, standards, guidelines, programme proposals, implementation plans and review reports.

2. Concept papers, journal articles, research studies, books and expert opinions from other professions and disciplines on coordination.

3. Published government and non-governmental research studies on coordination of the two national programmes.

For the official policy and programme documents, the national government websites of various official bodies such as the Planning Commission of India, MHFW, NRHM, National Institute of Health and Family Welfare (NIHFW), National Health Systems' Resource Centre (NHSRC), MWCD, National Institute for Public Cooperation for Child Development (NIPCCD) were searched. Apart from these official web based sources, the libraries of NIPCCD, NIHFW, Centre of Social
Medicine and Community Health (Jawaharlal Nehru University), all located in New Delhi (India) were approached to help identify the appropriate literature. For Rajasthan state specific literature, the official web sources of Medical, Health and Family Welfare Department, NRHM, Directorate of Economics and Statistics, State Institute of Health and Family Welfare (SIHFW) and DWCD were searched.

To identify literature on coordination from other disciplines and existing research studies on this theme, databases such as Public Health Foundation of India (PHFI) and Google Scholar were explored. These databases were used as they were known for availability of multidisciplinary literature. Literature from pure sciences (genetics, clinical trials, and microbiology), mathematics, software and hardware engineering and technology from these databases were excluded from the review as it was mainly technical and this study focussed on coordination in human setting. Other public health databases such as Embase, Medline and Biomed were explored but excluded due to the availability mainly of biomedical studies. Articles in the English language, full text and electronic format were included in the study. Thus literature from health, social, behavioural and management science fields were included in this study. Since the literature review formed the basis of research design that was finalised in early 2011, this chapter covers studies and articles published until 2010.

Further, research studies and publications related to the coordination of the two Indian national programmes, departments and their frontline workers in India were
searched using the same databases mentioned above including Google open web (for government published documents). Apart from this, relevant references (though limited in number) from the reference list of reviewed articles were also identified, reviewed and included in this study.

2.4 Finding (1): the concept of coordination

2.4.1 What is coordination?

The coordination literature from the national and state documents showed that the term "coordination" is used interchangeably with other words like "convergence", "integration", "collaboration", "assistance", "support", "linkage", "cooperation" but all to mean the same thing i.e. the need for joint work between health and aligned departments including nutrition (DWCD) to address various dimensions of the maternal and child health goals\textsuperscript{97,98,99}. This was confirmed by Mintzberg (1979), Powell (1990), Ostrom (1990), Ring Van de Ven (1994) and Tolksdorf (2000) who said that the literature lacks consistency in the use of the word "coordination" and all the above mentioned synonyms are used interchangeably as they rest on similar ground principles\textsuperscript{100,101,102,103,104,105}.

The Indian health and nutrition policies and programme literature also lacked any definition or conceptual clarity on the term "coordination" except for two documents i.e. one from NHSRC and another from the state government of Rajasthan\textsuperscript{106,107}. The former defined coordination as "functional linkages between the health services and other aligned sectors that influence the health status" while
the latter defined it as "the process that enables different functionaries and community people to work together for efficient service delivery". The former emphasised the "joint work" between health and aligned sectors whereas the latter indicate the "joint work" between the department functionaries and community people to address common issues. The literature from other disciplines and areas of professional practice suggested the following definitions of the term coordination:

1. "Coordination is the behaviour that emerges from the collection of individuals whose actions are based on collective and complex decision making process that involves information exchange and joint efforts to achieve mutually defined goals". (Behavioural Sciences)

2. "Coordination is all about working together to achieve common goals". (Management)

3. "Coordination is about management of dependencies amongst activities and actors". (Management).

4. "It's a state of relationships at interpersonal, professional, group and organisational level to be achieved, maintained and reviewed". (Social Work)

5. "Coordination involves an interpersonal process with a purpose and this purpose is to achieve common goals that cannot be achieved single handed". (Behavioural Sciences)

All the above definitions appear to identify four key components of coordination i.e. "multiple workers", "their interaction" in the process of their "joint working" which leads to the achievement of their "common goals". Thus this study will
consider Malones' definition of coordination i.e. working together for common goals. The definition has inherent components i.e. "multiple workers" and "their interaction/behaviours/relationships". This study used the term "coordination" over its other synonyms because the majority of country (India) and state (Rajasthan) specific literature used this term in the context of ICDS and RCH programmes' joint working.

2.4.2 Why coordinate?

The need for coordinated rather than independent programme frameworks in the current economic climate of shortage of resources is suggested by many experts\textsuperscript{113, 114}. Coordination is said to be needed when it is impossible to achieve any goal independently and needs multiple workers to perform multiple tasks that together leads to a common goal\textsuperscript{115}. In cases where the goal is complex, the systematic involvement of multiple workers is said to save time and improve quality and cost efficiency\textsuperscript{116, 117, 118, 119}.

In the context of India, as the maternal and child health goals are addressed by both ICDS and RCH (NRHM), the purpose of promoting their coordination is to efficiently address the common goals. The efficiency is said to be achieved by reducing structural and operational duplications which in-turn will reduce an individual workers' workload and save programme time and resources\textsuperscript{120,121,122,123}. With special reference to coordination at the frontline, the programmes expect
greater teamwork between the three groups of FLWs to improve programme coverage and outcomes\textsuperscript{124}.

2.4.3 \textit{The theoretical approaches to coordination}

Malone (1988) proposed the coordination theory that explains the interaction between four key components (common goal, multiple workers, teamwork and interactions between tasks and workers) of any coordinated activity in detail\textsuperscript{125}. The theory suggests that the common goals in any coordinated activity must be broken down into multiple tasks and sub-tasks. Each of these tasks is performed by a specific actor/worker/individual. Since these tasks are linked with each other and with the common goal, the actors that perform these tasks also become interdependent and hence need interaction. Thus the process and management of interdependencies between "goal-task", "task-task", "task-sub-tasks", "tasks-actors" and "actors-actors" determines any coordination.

\begin{figure}[!ht]
  \centering
  \includegraphics[width=\textwidth]{CoordinationModel.png}
  \caption{Coordination model by Malone}
\end{figure}
The theory suggests that in any coordinated activity, the actor may perform the task individually yet as a group member. Thus both individual and group identity of each actor involved in the coordinated process may affect coordination which is why clarity on goals, tasks, roles (their own and of other coordinating actors) and their interdependence must be established in the multiple actors involved in any coordinated activity in order to improve coordination. This theory also emphasised that the premise of any coordination for team members is their "meaningful participation" in the process of achieving common goals.

The workflow models used in management sciences are also said to have the potential to explain and manage coordination in team work settings\textsuperscript{126, 127, 128}. The definition of workflow is similar to coordination i.e. a set of tasks performed by multiple agents to reach a shared goal in a coordinated framework\textsuperscript{129}. Represented as flowcharts, maps or detailed work plans, they help break any complex activity or goal into smaller tasks and associated agents—all of which follow a structure and may have a sequence\textsuperscript{130}. The model gained support from others like Mintzberg (1979) who said that the workflows standardise the tasks, actors, their skills and their roles in any complex activity that require coordination for successful completion\textsuperscript{131}. This \textit{standardisation} is said to make any coordinated systems more manageable and efficient by ensuring path and role clarity. The systems that lack such standardisation but aim for coordination are said to depend on \textit{Mutual Adjustments} between the team members that further depends on their inter-personal
rapport. The standardised workflows lessen mutual adjustments and hence ensure desired results.

Whittington (2003) explained the joint work between and within organisations from the systems' perspective\textsuperscript{132}. According to him, any interaction between team members from the same or varied organisations is influenced by their personal, professional and organisational construct. Together, such persons, professionals and organisations function within a national and international context. As part of the personal construct, personal factors such as gender, caste, class, culture, education, religion may influence the interaction between coordinating actors. As the coordinating members are professionals from same or different professions, their professional factors such as experience, training, knowledge, skills, post, salary may also influence their interaction. As these actors operate under the framework of their common or different organisations, the organisational rules, regulations, protocols and guidelines may also influence their interaction. Together, these interactions determine the inter-personal, inter-professional and inter-organisational relationships between actors that further determine their experience of working together and hence their "meaningful and expected participation" in joint activities. Such past experience influences the decision and extent of participation of an individual in any joint activity and its influence is greater when the coordination framework in less structured and more dependent on mutual adjustments.
Like Whittington's work on organisations, two social scientists, Jacob Mareno and Joseph E. McGrath, studied "joint work" in smaller group settings. Similar to Malone and Whittington, they said that in any group work individual members form relationships with each other due to some dependencies that determine the structure and performance of the group. Jacob Mareno (1953) used the Sociometry technique to understand the structure and behaviour of a group and its members^133. Going further into understanding these relationships, Joseph E. McGrath (1984) said that any group that is constituted to "work jointly" has its inherent properties such as its structure (e.g. members with varied profile, division of labour, group leader), dynamics (interactions, power, authority, alienation, politics) and internal and external environment (e.g. time, venue) that affects the coordinated functioning of the group members and the group^134.

Robertson (1998) talked about any joint work between organisations from a developmental perspective^135. He said that before the organisations, departments or programmes decide to coordinate, it is important to first understand their need, willingness, existing environment and facilitating and limiting factors. On the limiting factors, Feig and McCullough (1997) and Dennis (1998) said that issues like: 1) differences in attitude and values; 2) lack of clarity on policy expectations and thus non-compliant behaviour; and 3) lack of trust, respect, communication and commitment between the coordinating parties may affect coordination^136, 137.
Bronstein (2003) talked about the "joint work" from the process perspective. He said that while transforming from an independent to coordinated framework, the shift leads to new structural arrangements that call for flexibility and adjustment in the existing staff. The shift converts independence to interdependence, individual goals to shared goals and autonomy to shared ownership of results.

Using the assessment and evaluation framework to understand any coordination was another approach shared by Young and Gardner (2002) who said that the understanding of the need, structure and process proposed by the coordinating parties is a must. They said that the understanding of whether the coordinating parties have shared goals, values, principles, clear guidelines, joint training, adequate knowledge on the coordinated activity and data sharing mechanisms will help assess coordinated work. Joint training and knowledge levels were also supported by Mary Beth (2006) as two criteria for understanding the coordination between partners. Malone (1988) said that though lack of clarity on common goals in the coordinating partners is quite possible in cases where mutual goals are not clearly defined, communicated, understood or reported, such cases need a different approach to understanding coordination.

Overall, the literature identifies that at the institutional level (policy and programmes), the recognition of the common needs, goals, objective, values, approach, principles and willingness to coordinate create an enabling environment or antecedents for coordination. At the implementation level,
structural arrangements, joint training, role clarity and knowledge about work area, constant communication and data sharing, good relationship and interaction facilitate coordination\textsuperscript{147, 148}. The following sections will thus analyse both the institutional environment and that at the implementation level in the context of India and the two programmes.

2.5 Finding (2): policy and programme environment

To understand the existing environment for ICDS-Health (RCH/NRHM) coordination in India, various policy and programme documents were reviewed.

2.5.1 The policy environment: The ICDS programme in India is directed by two policies i.e. the National Policy for Children (NPC) 1974 and the National Nutrition Policy (NNP) 1993\textsuperscript{149, 150}. The RCH (NRHM) programme is directed by the National Health Policy (NHP) 1983, National Population Policy (NPP) 2000 and National Health Policy (NHP) 2002\textsuperscript{151, 152, 153}. The review suggested following complementarities between two sets of policies i.e. those that guide ICDS programme and those that guide the RCH programme:─

- **Common concerns:** Both policies identify children as one of the most vulnerable groups in terms of access to any health and nutritional services.

- **Common understanding:** Both recognise the interplay between health and nutrition and that this interplay affects the overall status of child health.

- **Common objective:** Both policies aim to improve resource utilisation, to avoid duplication and increase service coverage by coordination.
• **Common approach:** Promoting a life cycle approach, both emphasise care in all life stages i.e. adolescence, pregnancy, lactation and child care to address the long-standing child health and nutrition issues in India.

• **Common strategies:** Both emphasise community empowerment through sustained behavioural change communication (BCC) that requires an integrated BCC strategy with health, nutrition and other public health issues jointly addressed. Both identify joint planning, monitoring and review between aligned departments and programmes at all levels (village to national) and hence propose coordination committees at these levels. There is a consensus on the participation of the community in joint programme planning, monitoring and review in both sets of policies.

• **Recognition and willingness to work with each other:** Both value the experience of jointly working with each other in the past hence propose further linkages between these programmes and their respective departments to address the common child survival goals.

### 2.5.2 The programme environment:

Review of key government documents: 1) the framework for programme implementation for ICDS\(^{154}\); 2) annual government reports of programmes for children (2005-07)\(^{155}\); 3) the national programme implementation plan of RCH-II (2005)\(^{156}\); 4) three decades of ICDS-the appraisal\(^ {157} \); and 5) the NRHM mission document\(^ {158} \) formed the basis of this analysis. The analysis showed the following complementarities between the two programmes-ICDS and RCH, at the conceptual and structural level:-
• **Shared vision**: Both programmes aim to ensure child health. The RCH programme targets to achieve healthy couples, healthy mothers and healthy children as it believes that the healthy and aware couples lead to healthy pregnancies and motherhood that in turn leads to healthy childhood. The ICDS programme also aims to ensure healthy childhood but believes in two key aspects that can ensure this vision i.e. 1) proper health, nutrition and awareness amongst women that lead to healthy child birth and motherhood; and 2) the integrated health, nutrition and education services which lead to healthy childhood\(^{159}\).

• **Shared goal**: Both the programmes aim to reduce infant mortality. Though the RCH programme aims at population stabilisation and disease control to reduce IMR, the ICDS programme aims at the reduction of malnutrition to address infant and child mortality issues.

• **Overlapping target groups**: Though both the programmes cater to pregnant and lactating women, adolescent girls and children, ICDS deals with children up-to six years of age whereas RCH extends to children up-to 16 years of age. Apart from this, the RCH programme also includes married couples.

• **Overlapping service package**: Three of the six services offered by ICDS programme (refer to section 1.2) namely immunisation and health check-ups, health and nutrition education and referral of the sick to the health services are dependent on the Health department mainly the RCH (NRHM) programme. Since these services cannot be delivered by ICDS alone, there is an inherent
inter-dependence between the two programmes, a characteristic of coordination explained by Malone 1991.

- **Structural compatibility**: This can be observed from Table 1.4 which shows that the two programmes have similar but parallel administrative and implementation structures from national to village level. The Table also shows the new structures institutionalised by the government to facilitate coordination between the two departments, a characteristic of a shift from an independent to coordinated framework as mentioned by Bronstein (2003).

- **Operational compatibility**: The two programmes' services are delivered at the village level. Both programmes have their own FLWs i.e. AWW for ICDS and ANM for RCH along with the ASHAs recruited to support the Health department in all states except Rajasthan where she is expected to support both-ICDS and the Health department. The specific functions to be performed by the three FLWs in order to deliver the programme services are presented in Table 2.1.
Table 2.1: Roles and responsibilities of FLWs in support of each other

<table>
<thead>
<tr>
<th>1-ASHA for ANM</th>
<th>ASHA for AWW</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Identify births, deaths, new pregnancies and diseased cases &amp; inform ANM</td>
<td></td>
</tr>
<tr>
<td>- Mobilize and counsel community for ANC, institutional delivery, child immunization, family planning, Support in ANC care, child immunization,</td>
<td></td>
</tr>
<tr>
<td>- Escort institutional delivery</td>
<td></td>
</tr>
<tr>
<td>- Home visits for postnatal care</td>
<td></td>
</tr>
<tr>
<td>- Provide First Aid and refer diseased cases</td>
<td></td>
</tr>
<tr>
<td>- Data Management</td>
<td></td>
</tr>
<tr>
<td>- Monthly meetings and reporting</td>
<td></td>
</tr>
<tr>
<td>- Identify births, deaths, new pregnancies and inform AWW</td>
<td></td>
</tr>
<tr>
<td>- Make 10 home visits/day to counsel and advice</td>
<td></td>
</tr>
<tr>
<td>- Support in Registers and reports</td>
<td></td>
</tr>
</tbody>
</table>

2-AWW's support to ASHA
- Support ASHA in Behavioural Change Communication (BCC) and organizing MCHN day
- Maintain ASHA's attendance

3-AWW's Work
- Annual Survey
- Birth and death Registration
- Growth Monitoring
- Supplementary Nutrition
- Early Childhood Education
- Behavioural Change Communication
- Data Management
- Data Reporting

4-AWW's support to ANM
- Refer diseased cases
- Assist in ANC, PNC, Immunization, Health Checkups
- Share village data with ANM

5-ANM's support to AWW
- Coordinate with AWW on Nutritional issues

6-ANM's Work
- Annual Survey
- Antenatal care (ANC)
- Delivery care
- Postnatal Care (PNC)
- Child Immunization
- Family Planning
- Medical termination of Pregnancy
- Infections and Disease Control
- Behavioural Change Communication
- Data Management
- Data Reporting

7-ANM's support to ASHA
Supervisory: Assign tasks, monthly review of work in joint supervisory meeting
Guidance: mobilizing community, organizing MCHN Day, problem solving, train on counselling mothers on child immunization and IFA consumption.
Administrative: Ensure incentive payment; provide first aid and Family Planning Kit.

8-ANM-ASHA-AWW Joint Work
- Participate in MCHN Day
- Participate in Pulse Polio Campaign
- Participate in Vitamin A Campaign
- Participate in VHSC meetings
- Participate in Behavioural change Events
- Participate in Women Group Meetings
- National Filaria Programme

Job Function of ANM, Health Worker Female/ANM, AWW and ASHA in the Context of Coordinated Functions under NRHM. IPHS for Sub-centre Guidelines -2006, DGHS, MHWF, GoI, New Delhi
Table 1.3 (in the previous chapter) presents the similarities and differences in the characteristics of the three groups of FLWs that applies to majority of Indian states. In the case of Rajasthan, though the characteristics of AWW and ANM remain similar, but the ASHA model differs (Table 1.5-in the previous chapter).

To facilitate their coordination at the operational level, GoI issued guidelines for: 1) joint recruitment of ASHAs; 2) job description of the three groups of FLWs in terms of their coordinated functions; 3) joint training of the three FLWs; 4) joint village health planning through VHSC meetings; 5) joint service delivery on VHND/MCHN day; 6) joint data management; and 7) joint supervision.

Thus as identified by Young and Gardner (2002), the policy and programme analysis helped understand the context in which the two programmes and their departments co-ordinate in India. As emphasised by Robertson (1998), the mutual need, shared values, goals, principles and structures at the policy and programme level seem to have created an enabling environment for coordination at the frontline.

2.6 Findings (3): ICDS and the Health (RCH/NRHM) departments' coordination evidence (frontline)

2.6.1 Pre-NRHM: The focus on coordination between the two programmes in India, especially at the frontline, is not new. The literature presents evidence of an ICDS-Health department integrated service delivery model at the village level during
1976-2005 period\textsuperscript{169, 170, 171, 172}. Until 2005, this integrated service delivery model meant that the Health departments' ANM and ICDSs' AWW jointly delivered Health (especially RCH related) and ICDS services to their common beneficiaries at a common place i.e. the Anganwadi Centre in each village.

The majority of the studies published during 1976-2005 in relation to the coordination of the ICDS and Health department in India followed a case-control design and stratified random sampling for beneficiary (pregnant and lactating women) surveys. Few also used field observations (weight, height, immunisation details of the children). The studies were conducted in various parts of India (Madhya Pradesh, Uttar Pradesh, Bihar, Andhra Pradesh etc.) including Rajasthan\textsuperscript{173, 174, 175}.

Most of these studies were designed to assess the outcomes and impact indicators of joint service delivery of ICDS and Health department at the frontline. Improved beneficiary coverage (an outcome indicator) for various services such as antenatal care, postnatal care, Vitamin A and Iron supplementation, immunisation, family planning and supplementary nutrition in areas that had functional AWCs and integrated service delivery against those which did not was reported by number of these studies\textsuperscript{176, 177, 178, 179}. Some studies, for example the case-control study by Tandon (1989), reported a decline in child malnutrition (Impact indicator) and another country wide (eight states included) study by Tandon and Gandhi (1990) reported a decline in IMR (Impact indicator) for seven states except Rajasthan in
areas where ICDS was operational rather than where it was not\textsuperscript{180, 181}. All these studies that assessed child health and nutrition outcomes or impact attributed such results to the good or limited coordination between the Health and ICDS departments at the service delivery level\textsuperscript{182, 183, 184}.

These studies showed that the joint delivery of the two programme services from under the same roof at the village level helped both the programmes attain their objective of improved beneficiary coverage and maternal and child survival. Hence they emphasised the need for strengthening this inter-programme coordination at the village level by the government. A minority of studies e.g. Trivedi et al (1995) showed better results in non-integrated than integrated model of delivery.

\section*{2.6.2 Post-NRHM:}

\textbf{A. Structural arrangements:} After 2005, new structures such as VHND/MCHN days, VHSC and appointment of ASHAs were institutionalised to jointly plan and deliver Health and ICDS services at the frontline. Table 1.3 and Table 1.5 in the previous chapter present a comparison of FLWs and ASHAs from other states vs. Rajasthan.

\textbf{B. Assigning roles and responsibilities:} In the light of new structural arrangements for coordination at the frontline level, GoI published the details on the roles and responsibilities of the three groups of FLWs for the states to follow\textsuperscript{185, 186, 187}. Table 2.1 presents the details on the functions of the three groups of FLWs as individual
workers and in support of each other. In Table 2.1, functions in Boxes 3 and 6 are those for which the AWW and ANM hold the primary responsibility. Those in Box 1 are to be performed by ASHAs to support ANMs and AWWs to enable them to successfully carry out their responsibilities. Boxes 2 and 4 are functions of AWWs to support ASHAs and ANMs and Boxes 5 and 7 are ANMs' functions to support AWWs and ASHAs respectively. Box 8 presents the joint functions of the three groups of FLWs. A review of these functions suggested that:

- The GoI instructs ASHAs to support AWWs in organising VHND/MCHN day and the Health department related register and record maintenance whereas the government of Rajasthan instructs her to also make 10 home visits per day for awareness generation in people about ICDS services, health and nutrition issues\(^{188, 189}\).

- Apart from some specific functions of the three groups of FLWs, there are areas that lack clarity on who is to perform what functions and how they are to be performed. For example, though antenatal care, postnatal care, child immunisation, health checkups and family planning are primarily an ANMs' responsibilities, the job descriptions of AWWs and ASHAs show that the ASHAs and AWWs are also expected to support and assist the ANMs in these activities. The lack of detail on what this "support" entails means that the tasks are undertaken flexibly between the FLWs with no structured distribution of tasks with appropriate accountability.\(^{190}\).

- The use of the term "Participate" for the three groups of FLWs in all the joint functions mentioned in Box 8 though explains the "attendance" dimension of
coordination but not the functional details on who should do what. There are authors that have also identified the overlap, duplication and lack of clarity amongst the roles of the three groups of FLWs which is likely to carry over to the field and hence affect coordination\textsuperscript{191, 192, 193, 194}.

C. Training: Joint training of the three groups of FLWs had always been proposed by the GoI as a mechanism to strengthen frontline coordination\textsuperscript{195, 196, 197, 198, 199}. However the literature lacks evidence on the implementation and outcomes of this strategy. Though there are studies that looked at the number, content and quality of training provided to individual groups of FLWs\textsuperscript{200, 201, 202}, there are very few that examined the content and quality of joint training of the three groups of FLWs. A cross sectional study from Uttar Pradesh (NRHM high focus north Indian state) that interviewed the three groups of FLWs showed that during their training, less than half the ASHAs were oriented on any team work or about their coordination with the ANMs\textsuperscript{203}. The study showed that though both AWWs and ANMs were instructed to build the capacity of ASHAs by training them, participation in this by the AWWs was very low compared to some ANMs. Also the AWWs found such capacity building of ASHAs a waste of their time\textsuperscript{204}. A mixed method study from two administrative blocks of Bihar (NRHM high focus north Indian state) that interviewed the three groups of FLWs showed that none of the training of the three groups of FLWs educated them about working with each other\textsuperscript{205}.
**D. Role clarity:** Though there were studies that showed good knowledge and role clarity amongst ASHAs about their work\(^{206,207}\), there were limited studies that looked at the degree of clarity in the three groups of FLWs about each other’s roles. Four such studies from three NRHM high focus states-Bihar, Rajasthan and Jharkhand were found. Of the two Rajasthan based studies, one found poor role clarity in AWWs and ANMs about each others' role whereas the other showed poor role clarity in AWWs and ANMs about the roles of ASHAs\(^{208,209}\). The remaining two studies, one from Jharkhand and the other from Bihar showed poor knowledge and role clarity in ASHAs as well, along with the other two FLWs\(^{210,211}\).

**E. Joint planning:** The majority of studies reviewed from various states of India, including Rajasthan presented evidence of limited functioning of the VHSCs due to limited understanding, training and support systems for the various stakeholders (including FLWs) who are instructed to participate in these meetings for joint planning\(^ {212,213,214,215}\).

**F. Joint service delivery:** The NRHM and RCH Programme Annual Common Review Missions (CRMs) conducted during 2005-2010 studied the progress of VHNDs/MCHN days (along with other programme strategies) in multiple states of India including Rajasthan\(^{216,217,218,219,220}\). The SEDEM study conducted the ICDS programme review in Rajasthan state during the same period\(^ {221}\). The NRHM CRMs used discussions with line managers, semi-structured interviews (SSI) mainly with ASHAs, a few ANMs and AWWs and observation of MCHN days. The SEDEM
study used two of the methods (SSI with AWW and ANMs, observations of MCHN day and review of FLWs' registers and records). The RCH annual CRMs used a comprehensive literature review for the majority of states while field visits were undertaken in four states to understand progress of the RCH programme.

These reviews showed that the MCHN days were regularly organised by the FLWs. This evidence was also available for Rajasthan, one exception being a study that was conducted in five districts of Rajasthan using field observations, interviews with AWWs and ASHA Sahyoginis and discussions with programme beneficiaries which reported irregularity in organizing MCHN days in 64 per cent of study area.\textsuperscript{222} The NRHM CRM studies along with others also showed that the frontline coordination was better in antenatal care and immunisation compared to other health and ICDS services delivered on MCHN day.\textsuperscript{223, 224, 225} None of these studies, however, presented details on the specific tasks performed by each of these FLWs under each activity to be able to conclude that there was any coordination and that this coordination was as outlined by the system in order to label it "good coordination". Hence, though the regularity of MCHN days and key activities which are jointly delivered on MCHN day are important dimensions of understanding coordinated service delivery, the extent, quality and outcome of the participation of the three groups of FLWs in each of these activities are equally important in order to assess any coordination. No study commented on these aspects of coordination of FLWs in MCHN days.
G. Mutual support: A few studies explored the giving and seeking of support between the three groups of FLWs, though the details on the nature and areas of support were unclear. The available evidence presented a mixed picture. Two studies that included Rajasthan as one of the sample states showed that majority ASHAs seek and provide help to the ANMs and AWWs but these studies lacked the ANM and AWWs' perspective. Two other studies, one from Jharkhand and the other from Bihar showed a poor state of coordination between the FLWs. Though the majority of ANMs and the ASHAs from the Jharkhand study said that they sought each others' help and assisted one another in the work, the health department officials and the beneficiaries said that this was not the case. The study from Bihar showed that the ASHAs got limited support from the ANMs and AWWs, but the study did not include the perspective of ANMs and AWWs on the support they get from the ASHAs.

H. Data sharing, review and problem solving: Though the government promotes joint meetings and data coordination between the FLWs, few research studies were found looking at the sharing, joint management and reporting of data, and joint meetings between the three groups of FLWs. Three studies identified in this area were based in Rajasthan. The first study conducted in 2005 showed that the data on health services especially child immunisation maintained by both-ANMs and AWWs did not match. The second study conducted in 2007-08 looked at ASHAs' regular monthly reporting to both ICDS and Health department at the sector level, and the third study conducted in the same year showed that the
majority of ASHAs met the AWWs everyday compared to meeting the ANM once in fifteen days\textsuperscript{234,235}. Though the purpose and content of these joint meetings was not explained in any of these studies, they were supposed to have at least provided a platform for joint appraisal of data, information and problem solving.

2.7 Literature on coordination among community health workers (CHWs) from countries other than India

**Study 1: Country: Malawi Study; Author: John Phuka et. al.(2014)**\textsuperscript{236}

The study uses mixed methods to analyse integration between nutrition, early childhood development and health in Malawi at the policy, programme and community levels. The study concluded that there was poor community level coordination among "Community Health Workers" (CHWs) and "Child Protection Workers"(CPWs) despite willingness of the community and political leadership to promote integrated approaches to service delivery. Some of the reasons mentioned affecting this inter-worker coordination at the frontline level were: inappropriate recruitment policy; non-aligned population coverage; work overload; lack of joint training; inadequate knowledge of common areas of work; lack of role clarity; task shifting; poor working conditions and support; dissatisfaction related to incentives; lack of recognition of work; and poor and uncoordinated supervision. Also as the majority CHWs and CPWs were not resident in the villages they were expected to work in, this was explained as an important factor affecting their work performance as individuals as well as amount and quality of time they get to spend with each other.
Study 2: Country: Multi-country; Author: Bhutta, Z.A., et.al. (2010)

The study is a systematic literature review of the literature on CHWs. Collating evidence from 35 countries from African, Asian, European, British and American context, the study identifies the following factors that impact on the work performance of CHWs:

education, distance of residence from work place, their socio-cultural status, training, role clarity, job skills, infrastructure & job support, supervision, incentives, clarity on career progression, affiliation to the formal government department, perceptions and myths within the client community. The detailed case study of seven countries conducted in addition to the systematic review also identified that training, supervision and strong health system are the driving forces of a successful CHW programmes. The study states that there is limited evidence available on the contribution of CHWs to other sectoral programmes for e.g. nutrition.

<table>
<thead>
<tr>
<th>Areas</th>
<th>Haiti</th>
<th>Ethiopia</th>
<th>Uganda</th>
<th>Pakistan</th>
<th>Bangladesh</th>
<th>Thailand</th>
<th>Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training</strong></td>
<td>Short-term</td>
<td>Long-term</td>
<td>Short-term</td>
<td>Long-term</td>
<td>Short-term</td>
<td>Short-term</td>
<td>Long-term</td>
</tr>
<tr>
<td><strong>Supervision</strong></td>
<td>Strong</td>
<td>Weak</td>
<td>Strong</td>
<td>Strong</td>
<td>Strong</td>
<td>Weak</td>
<td>Strong</td>
</tr>
<tr>
<td><strong>Health System</strong></td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
<td>Strong</td>
<td>Strong</td>
<td>Strong</td>
</tr>
</tbody>
</table>
Study 3-Country: Multi-country; Author: Digirolamo, Ann et. at. (2014)\textsuperscript{238}

The paper, from the field perspective, discusses the challenges faced in the integrated child health, nutrition, education and development programmes. The paper discusses evidence from a range of countries - Zambia, Malawi, Mozambique, Salvador, India on integrated child development programmes. It highlights: separate rather than pooled donor/government funding for separate programmes; lack of coordination among the senior staff of multiple but linked sectors; unclear and no common understanding of officials at all levels on the definition, framework of activities, roles, responsibilities and deliverables of all partners; lack of joint training; unclear job descriptions; inappropriate incentives; and uncoordinated and poor quality supervision as some of the challenges that affect the work performance of community health workers in integrated programmes. Though the paper suggests solutions, it also suggests advocacy at all levels to promote integrated team approaches to address complex child development problems.

Study 4- Country: Sub-Saharan Africa, Author: Hermann, Katharina et. al. (2009)\textsuperscript{239}

The paper presents a list of eight conditions necessary for the success of any CHW programme: \textit{Selection} (right candidate from the local community with adequate education selected in a transparent manner); \textit{training, knowledge & skills}(including refresher training); \textit{standards & guidelines} (role description, operational guidelines, deliverables); \textit{supportive supervision; material support; incentives & career path}; \textit{political support; alignment with the broader system strengthening efforts}. The paper
also covers the field research in three African countries and evaluates their CHWs on the above criteria.

Table 2.3: Inter-country comparison of CHWs (2)

<table>
<thead>
<tr>
<th></th>
<th>Ethiopia</th>
<th>Uganda</th>
<th>Malawi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nomenclature</td>
<td>Health Extension workers (HEW)</td>
<td>CHWs (expert patients, ART aides, HIV medics &amp; field officers)</td>
<td>Health Surveillance Assistants (HAS)</td>
</tr>
<tr>
<td>Selection</td>
<td>10th standard pass, female from the community, selected by a committee from the community</td>
<td>Community member though selected by the government</td>
<td>Selected by local NGOs</td>
</tr>
<tr>
<td>Placement</td>
<td>Part of MoH</td>
<td>Not formally recognized by MOH</td>
<td>Recognised by MoH</td>
</tr>
<tr>
<td>Training</td>
<td>1 year</td>
<td>8 weeks</td>
<td>10 weeks</td>
</tr>
<tr>
<td>Supervision</td>
<td>Health office</td>
<td>Facility Nurse/Doctor</td>
<td>Health Nurse</td>
</tr>
<tr>
<td>Regular Salary</td>
<td>USD 68</td>
<td>USD 5-75/month</td>
<td>USD 42-52/month</td>
</tr>
<tr>
<td>Career Path</td>
<td>Clear career path</td>
<td>No clear career path</td>
<td>Clear career path</td>
</tr>
</tbody>
</table>

The paper concludes that since the Ethiopian government recognised the CHWs/HEWs, provided them with long term training on their expanded roles, paid them a regular salary, established a clear career path for them, but the lack of appropriate supervision appears to be the factor that influences the lack of success of CHW. In the case of Malawi, poor training is said to be affecting their CHWs' performance whereas in case of Uganda, the non-affiliation of CHWs by their government, no career path and weak health system are said to be some of the factors affecting their CHWs' performance in
the HIV/AIDs programme. The paper suggests that all the eight conditions should be looked at to make any CHW programme a success. Any compromise on even one condition can affect progress. Increasing numbers of CHWs cannot help attain the programme targets unless health systems are themselves strengthened.

2.8 Research gaps

1. The literature reviewed suggested that the understanding of the characteristics, implementation, relationships and outcomes of coordinated models is limited and needs further research\textsuperscript{240, 241, 242}.

2. In the Indian context, not many studies were found on the coordination at the frontline level between the two programmes, especially after the inclusion of the ASHA i.e. 2005.

3. While none of the studies primarily focused on exploring of frontline coordination, some covered certain aspects of frontline coordination.

4. The studies that talked about good frontline coordination in some services such as antenatal care and child immunisation did not provide the details based on which they classified these as good coordination areas.

5. The roles and responsibilities of the three groups of FLWs, as identified by the government were unclear about the extent and accountability of their expected participation in various joint events.

6. There was an overall lack of evidence on critical aspects of coordination e.g. joint training, role clarity, joint service delivery, data coordination and sharing.
7. The majority of studies lacked the perspective of all three groups of FLWs, i.e. AWW, ASHA and ANM, to be able to obtain a comprehensive picture. The majority of studies only included the ASHAs' perspective and very few included perspectives of all the three FLWs.

2.9 Limitations of the method used in literature review

The methodology used in literature review presented was based on the work of Prof. Ritu Priya and Leutz's Model of Integration. The previous author differentiated "coordination" from "convergence" and "integration" clarifying that coordination is only about functional linkages between multiple entities while convergence and integration could also include linkages between administrative and governance structures of multiple entities. Leutz's model stated that integration involves linkages at all levels not just the functional level, it involves pooling resources of all partners and developing a common record system between all stakeholders. Leutz model also stated that "coordination" involves coming together of only relevant rather than all structures within a joint working framework and it includes protocols for sharing relevant rather than all information between stakeholders.

This was the underlying premise (i.e. differentiating the term "coordination" from its other synonyms e.g. linkages, integration, convergence, collaboration, etc.) and the reason for why only the term coordination was used to search the literature from the selected databases. However, the limitation of using a narrow search term meant that
the literature using the various "coordination" synonyms could have been missed and thus restricted the scope of the literature review presented.

2.10 Need for this study

The literature review suggested a lack of evidence on the operational aspects of coordination. Similarly, the literature review on the joint working of ICDS and the Health department (RCH/NRHM) did not show much evidence of its implementation. The need for understanding this inter-sectoral coordination is important, especially at the frontline, because the onus of achieving joint programme objectives i.e. improving beneficiary coverage and child survival outcomes is dependent on the frontline or village level service delivery workers and their coordination.

Additionally, the increased complexity at the frontline with the addition of ASHAs as a third FLW group, the unique frontline coordination arrangement in Rajasthan and the policy debate on recruiting additional frontline workers to jointly attain the programme goals made it important to study the existing state of frontline coordination to inform policy makers.

The lack of research with a primary focus on "coordination" between the two departments and programmes, especially their frontline workers to understand this process from multi-stakeholders' perspective, made a research in this area a prime need.
This study is primarily focused on inter-programme frontline coordination including insights from multiple stakeholders (the three groups of FLWs, programme line managers from ICDS and Health department and programme beneficiaries). It is unlike others that aimed to assess the progress of individual programmes (RCH/ICDS/NRHM) and tried to use the results to comment on the status of inter-programme coordination.

Thus the importance of frontline coordination in attaining common programme goals and lack of evidence on the operational realities of this coordination suggested the need for an in-depth study in this area.
CHAPTER 3

PARTICIPATION OF FRONTLINE WORKERS IN CHILD IMMUNISATION AND VITAMIN A SUPPLEMENTATION IN RAJASTHAN-EVIDENCE FROM THE FRONTLINE WORKERS' SURVEY AND OBSERVATIONS
3.1 Introduction

As the study aim was to understand the coordination of the three groups of FLWs in delivering common goals, the first step was to define the term ‘coordination’. Malones' definition of coordination i.e. "working together for common goals" was used for this study. The understanding of the terms “working together” or "joint participation" was illustrated in Collin Whittingtons' model of joint working that states that any joint work in a professional setting can be called collaborative only when the associated actors "participate" in it as desired. Both-Malones' theory of coordination and the Workflow management models suggest the need to first understand the list of tasks that contribute to the overall service and its delivery before exploring the actual participation. Therefore to understand how the three groups of FLWs coordinate for common goals, it was considered important to first identify their common goals, understand the processes (tasks, sub-tasks and actors) that lead to these common goals and the associated outcomes of this common participation.

3.2 Selection of the common goal and associated activities

Improvement in child health status by reducing IMR, CMR and child malnutrition is the common goal of the three groups of FLWs. Table 2.1 (Box 8) shows that ensuring complete immunisation (defined in Chapter-1)of children up-to one year of age and Vitamin A supplementation for children up-to five years of age are two common activities associated with their common goal. This part of the study,
therefore, explores the participation of the three groups of FLWs in these two activities.

Routinely, the complete immunisation package is provided to eligible children through MCHN day organised once a month in each village usually at their AWCs. The routine child immunisation will be referred to as RCI. As RCI includes the first dose of Vitamin A provided to eligible children together with the measles vaccine, it will be referred to as RVA (Routine Vitamin A). The children who are missed or not covered under the routine process are covered through ‘camps’. The focus of these camps had been on polio vaccination and Vitamin A supplementation in every state in India. The Vitamin A campaigns are organised biannually whereas the frequency of polio camps depends on the caseload. The polio camp will be referred as PC and the Vitamin A campaign as VAC. During VACs, the three groups of FLWs are expected to ensure delivery of the eight remaining doses of Vitamin A to children up to five years of age whereas in the PCs, they are expected to cover all children up-to five years with polio vaccination. Both camps are organised at different times of the year.

As the job descriptions of the three groups of FLWs specifies their coordination with each other in child immunisation and Vitamin A supplementation activities (though it does not clarify "how"), this part of the study will focus on exploring the participation (expected vs. actually performed roles) of the three groups of FLWs in RCI, RVA, PC and VACs. The findings from the literature review about good
frontline coordination in immunisation activity, compared to any other common activity also informed the selection of child immunisation as an area for exploring frontline coordination.

3.3 Aim

The aim of the study was to gain an understanding of the coordination between the three groups of FLWs, namely ANMs, ASHA Sahyoginis and AWWs.

3.4 Objectives

1. To understand the participation of ANMs, ASHA Sahyoginis and AWWs in child immunisation (Routine and Polio Camps) and Vitamin A supplementation (Routine and Vitamin A Camps).

2. To assess child immunisation coverage by the three groups of FLWs on MCHN days as an associated outcome of FLW coordination.

3.5 Methodology

3.5.1 Study Area

This study was conducted in two blocks i.e. Kherwada (Tribal) and Mavli (Non-tribal) of Udaipur district in Rajasthan. The selection criteria for the state are

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xiii A block falls between the village and district in the administrative hierarchy of the government in each state of India. It usually covers a population of around 0.1 million.

xiv A district falls between the block and state in the administrative hierarchy of government in each state of India. The national average of district population is 1.7 million (Census 2001, Ministry of Urban Development, GoI).
explained in Chapter 1. The selection of the district and the two blocks was purposive and the rationale is explained below.

**Why Udaipur?:** Udaipur is one of the 33 districts in Rajasthan. It is the southern district with a population of 3.7 million, 46 per cent tribal and 54 per cent non-tribal groups\(^{249,250,251}\). The district has an IMR of over 62 (HDR 2007) against the state average of 60 (HDR 2007) and national average of 57 (NFHS-3)\(^{252,253}\). This makes the district a high focus region for NRHM\(^{254}\). The majority of the population speaks "Hindi". The district was ranked 20th on HDI of the 33 districts within Rajasthan (HDR 2007)\(^{255}\).

Thus being NRHM high focus district with high IMR, availability of tribal and non-tribal population groups for comparative analysis, use of "Hindi" language facilitating qualitative data collection and being rated as average rather than an outlier in human development were some criteria considered in selection of Udaipur district. Fig. 3.1 shows its location within Rajasthan.
Why Kherwada and Mavli? : Udaipur district is administratively divided into 11 blocks\(^{256}\). The average population of these blocks is about 0.27 million\(^{257}\). The National Population Census (2001), conducted every ten years in India, was used to estimate the tribal and non-tribal composition of each of the 11 blocks as Census 2011 data was not available at the time of sampling for this study. The Mavli block was found to have a high (80 percent) non-tribal population whereas Kherwada block had a high (83 percent) tribal population. In terms of their geographical positioning, the blocks were diagonally opposite to each other (Fig. 3.2) hence a good representation of the district.
3.5.2 Methods

To understand the "process", "expected vs. actual participation" and "outcome" involved in RCI, RVA, PC and VAC activities, four principal questions were explored using multiple methods. These are presented in Table 3.1. Table 3.2 summarises the methods, tools, target and their numbers included in this part of the study to answer the study objectives. The listed methods followed a sequence when applied in the field which is presented in Fig. 3.3.
### Table 3.1: Research questions and methods

<table>
<thead>
<tr>
<th>Process</th>
<th>1</th>
<th>What key tasks form part of the process of RCI, RVA, PC and VAC service delivery?</th>
<th>1. In-depth interviews (IDI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>2</td>
<td>Which group of FLWs are expected to participate in which task of RCI, RVA, PC and VAC by the government?</td>
<td>1. Policy review</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>What is the actual status of participation of the three groups of FLWs against government expectation in RCI, RVA, PC and VAC?</td>
<td>1. Questionnaire based face-to-face survey of the three groups of FLWs 2. Field observations (MCHN day) 3. Review of registers and records of selected FLWs</td>
</tr>
<tr>
<td>Outcome</td>
<td>4</td>
<td>What is the status of child immunization coverage on MCHN days?</td>
<td>1. Field observations (MCHN day)</td>
</tr>
</tbody>
</table>

### Table 3.2: Summary of research design

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Methods</th>
<th>Tools</th>
<th>Target</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process and Participation</td>
<td>In-depth Interviews (IDI)</td>
<td>Guide</td>
<td>ANM, ASHA Sahyogini, AWW</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>FLWs’ Job Profile</td>
<td>Checklist</td>
<td>Government Documents</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Field Observations</td>
<td>Checklist</td>
<td>MCHN days</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>FLW Survey</td>
<td>Questionnaire</td>
<td>ANM, ASHA Sahyogini, AWW</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Review of FLW Records</td>
<td>Checklist</td>
<td>Registers</td>
<td>16+16</td>
</tr>
<tr>
<td>Outcome</td>
<td>Field Observations</td>
<td>Checklist</td>
<td>MCHN days</td>
<td>16</td>
</tr>
</tbody>
</table>
a. **In-depth interviews (IDIs) and policy review: formative stage**

The use of IDIs for understanding processes is established in social sciences research and the idea of listing/mapping steps/tasks in a process is also not new in social science research\(^{258,259}\). To understand the key tasks that form part of the process of RCI, RVA, PC and VAC service delivery, IDIs with the three groups of FLWs were conducted. The FLWs from each group were selected based on the information provided by the Health and ICDS department officials from Mavli and Kherwada block offices. The officials were informed about the purpose of this study and IDIs. They were requested to recommend the names of those FLWs from each group who
they thought were experienced, knowledgeable and could be contacted for the IDIs. A list of recommended ANMs, AWWs and ASHA Sahyoginis with their personal details (age, name, and years of work experience, village and contact details) was prepared. Permission was sought from these officials to interview the recommended FLWs.

The shortlisted FLWs were then contacted by phone, briefed about the study, asked for their consent to be the part of the study and suggestions for suitable times and venues for the interviews were sought. Finally, based on their availability and consent, 12 FLWs (four ANMs, four ASHA Sahyoginis and four AWWs), two tribal and two non-tribal from each group of FLWs, were included in this part of the study.

An interview guide with four broad questions on the organisation of RCI, RVA, PC and VACs was prepared (Appendix 1). Further probes on each question were included depending on the responses. Each interview lasted an average of 35 minutes. The interviews were recorded in audio and paper format depending on the consent for audio recording by the interviewee. The interviews were transcribed and analysed to summarise key tasks indicated by the FLWs for each of the four activities i.e. RCI, RVA, PC and VAC. A summary of the task list for each of these four activities was prepared and taken back to the respondents and department officials for verification and final comments. Fig.3.4, 3.5 and 3.6 shows the process followed in RCI, RVA, PCs and VACs.
Fig. 3.4: Process of routine child immunization (RCI) and routine Vitamin A (RVA) supplementation

1. Identify newborn
2. Register newborn at:
   - AWC
   - Sub-centre
3. Prepare due-list of eligible children
4. Mobilise caretakers of eligible children
5. Prepare AWC for MCHN day
6. Ensure vaccines
7. Ensure other logistics
8. Ensure Vitamin A Solution
9. Give Vitamin A Solution
10. Manage medical waste
11. Counsel on MCHN day
12. Maintain record of child immunisation
13. Maintain record of Vitamin A coverage
14. Counsel other than MCHN day
15. Report details
Fig. 3.5: Process followed in polio camp camps

1. Pre-camp training
2. Community mobilisation
3. Vaccination at booth
4. Door to door vaccination
5. Record coverage
6. Report coverage

Fig. 3.6: Process followed in Vitamin A campaigns

1. Pre-camp training
2. Community mobilisation
3. Arrange Vitamin A
4. Provide Vitamin A
5. Record coverage
6. Report coverage
The final task list for these four activities formed the basis of revisiting the policy and programme guidelines to understand the governments' expectation related to the participation of each group of FLWs in each of these identified tasks. Various sources such as Immunisation Handbook for Health Workers (2006)\textsuperscript{260}, Operational Guide for Pulse Polio Immunisation (2006)\textsuperscript{261}, Government Orders on Vitamin A Campaigns from Government of Rajasthan\textsuperscript{262, 263} and published registers and reporting formats of FLWs were analysed to understand the governments' expectation from the three groups of FLWs on their participation in identified tasks.

Table 3.3, 3.4, 3.5 and 3.6 present the list of key tasks under RCI, RVA, PC and VAC and the governments' expectation on the participation of each group of the FLWs in each identified task. Symbol "√" in the following tables represents the clear governments' expectation from the particular group of FLW to participate in the specific task whereas "Unclear" status represents the ambiguity in government guidelines.
Due-list is the list of children and mothers found eligible for any health service such as antenatal check-up and immunisation. This list is expected to be prepared by the FLWs before MCHN day to help inform and mobilise eligible beneficiaries as well as arrange required logistics for the delivery of required service on MCHN day.

Table 3.3: Key tasks followed in the process of routine child immunisation as identified from 12 FLWs’ interviews along with the expected participation of the three groups of FLWs in them as per government guidelines

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Key Tasks</th>
<th>ANM</th>
<th>ASHA Sahyogini</th>
<th>AWW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify new-borns</td>
<td>Unclear</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Register new-borns</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>Prepare list of children to be immunised (Due-list\textsuperscript{v})</td>
<td>√</td>
<td>√\textsuperscript{v}</td>
<td>Unclear</td>
</tr>
<tr>
<td>4</td>
<td>Mobilise caretakers of children to be immunised</td>
<td>Unclear</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td>Prepare AWC for MCHN day (cleaning, arranging and setting up the place for immunisation)</td>
<td>Unclear</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>6</td>
<td>Ensure vaccine availability at site of immunisation</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>7</td>
<td>Ensure availability of syringes and other logistics</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>8</td>
<td>Vaccinate children</td>
<td>√</td>
<td>No role</td>
<td>No role</td>
</tr>
<tr>
<td>9</td>
<td>Manage medical waste</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>10</td>
<td>Counsel and advice on MCHN day</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>11</td>
<td>Counsel and advice other than MCHN day</td>
<td>Unclear</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>12</td>
<td>Maintain immunisation register</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>13</td>
<td>Report immunisation details</td>
<td>√</td>
<td>√\textsuperscript{v}</td>
<td>√\textsuperscript{v}</td>
</tr>
</tbody>
</table>

Table 3.4: Key tasks followed in the process of routine Vitamin A supplementation as identified from 12 FLWs’ interviews along with the expected participation of the three groups of FLWs in them as per government guidelines

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Key Tasks</th>
<th>ANM</th>
<th>ASHA Sahyogini</th>
<th>AWW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure availability of Vitamin A solution at site</td>
<td>√</td>
<td>Unclear</td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td>Give Vitamin A to children at site</td>
<td>√</td>
<td>Unclear</td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>Record Vitamin A coverage data</td>
<td>√</td>
<td>√</td>
<td>Unclear</td>
</tr>
<tr>
<td>4</td>
<td>Report Vitamin A coverage data</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

**As observed from monthly reporting formats in Rajasthan

Note: Task number 1, 2, 3, 4, 5, 8 and 11 under RCI are common for RVA also and performed at the same time by the FLWs for both RCI and RVA. Hence these are not repeated in RVA subsection.

\textsuperscript{v}Due-list is the list of children and mothers found eligible for any health service such as antenatal check-up and immunisation. This list is expected to be prepared by the FLWs before MCHN day to help inform and mobilise eligible beneficiaries as well as arrange required logistics for the delivery of required service on MCHN day.
Twelve IDIs and policy review conducted in the formative stage of the study helped clarify various tasks and actors expected to perform each of the tasks in the process of RCI, RVA, PC and VACs, but they also suggested other issues that may affect

---

**Table 3.5: Key tasks followed in the process of polio camps as identified from 12 FLWs' interviews and the expected participation of the three groups of FLWs in them (as per government guidelines)**

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Key Tasks</th>
<th>ANM</th>
<th>ASHA Sahyogini</th>
<th>AWW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Participate in pre-camp training</td>
<td>√</td>
<td>Unclear</td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td>Participate in informing community about camp</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>Participate in vaccine delivery at the booth\textsuperscript{xvi}</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>4</td>
<td>Participate in door to door vaccine delivery</td>
<td>√</td>
<td>Unclear</td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td>Record coverage data</td>
<td>√</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>6</td>
<td>Reporting coverage data</td>
<td>√</td>
<td>Unclear</td>
<td>Unclear</td>
</tr>
<tr>
<td>*</td>
<td>Receive participation incentive</td>
<td>Not found</td>
<td>Not found</td>
<td>Not found</td>
</tr>
</tbody>
</table>

*Note: Though no clear guideline could be accessed on incentives, but as the majority of 12 FLWs pointed this as a part of the process, it was included in the questionnaire.*

**Table 3.6: Key tasks followed in the process of Vitamin A camp as identified from 12 FLWs' interviews and the expected participation of the three groups of FLWs in them (as per government guidelines)**

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Key Tasks</th>
<th>ANM</th>
<th>ASHA Sahyogini</th>
<th>AWW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Participate in pre-campaign training\textsuperscript{265}</td>
<td>Unclear</td>
<td>Unclear</td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td>Mobilisation and awareness generation</td>
<td>Unclear</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>Arranging Vitamin A solution at site</td>
<td>√</td>
<td>Unclear</td>
<td>√</td>
</tr>
<tr>
<td>4</td>
<td>Administering the solution to those identified</td>
<td>No role\textsuperscript{**}</td>
<td>Unclear</td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td>Recording and maintaining data on coverage</td>
<td>√*</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>6</td>
<td>Reporting the coverage data</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

*Field Registers used by ANMs and ASHA Sahyogini/AWW

**In Rajasthan, ANMs have to administer Vitamin A during camps to children in areas that do not have AWCs or AWWs. All selected villages had AWC so ANMs did not have a role in this task in the selected villages.*

---

\textsuperscript{xvi}Polio booths are organised at a set location (stable/mobile) with all facilities such as vaccine, cold chain, awareness generation material and associated FLWs and other volunteers on board to help care takers of eligible children seek required services from common known set place.
participation of the three groups of FLWs. This review suggested lack of clarity in the government guidelines on FLWs' participation in some tasks and duplication of many tasks in more than two FLWs' job descriptions.

This understanding on associated tasks and expected actors from the formative stage informed the later stages of the study. Table 3.7 presents the list of all key tasks identified through the formative stage and the list of various methods used to understand the actual against expected participation of FLWs in each marked task. The table also outlines the outcome expected from the participation of the three groups of FLWs in routine child immunisation and Vitamin A supplementation that were assessed. The outcomes from the camps could not be accessed through primary data as no camps were found being organised during the data collection phase.
<table>
<thead>
<tr>
<th>Table 3.7: List of methods that helped investigate actual FLWs' participation in specific RCI, RVA, PC and VAC associated tasks and associated outcomes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.1 ANM, ASHA <em>Sahyogini</em>, AWW Participation</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>ROUTINE CHILD IMMUNISATION (RCI)</strong></td>
</tr>
<tr>
<td>Identify new-borns</td>
</tr>
<tr>
<td>Register new-borns</td>
</tr>
<tr>
<td>Prepare list of children to be immunised</td>
</tr>
<tr>
<td>Mobilise caretakers of eligible children</td>
</tr>
<tr>
<td>Prepare AWC for MCHN day (cleaning, arranging and setting up the place for immunisation)</td>
</tr>
<tr>
<td>Ensure vaccines availability at site</td>
</tr>
<tr>
<td>Ensure syringes and logistics availability</td>
</tr>
<tr>
<td>Vaccinate children</td>
</tr>
<tr>
<td>Manage medical waste</td>
</tr>
<tr>
<td>Counsel and advice on MCHN day</td>
</tr>
<tr>
<td>Counsel and advice other than MCHN days</td>
</tr>
<tr>
<td>Maintain immunisation register</td>
</tr>
<tr>
<td>Report immunisation details</td>
</tr>
<tr>
<td><strong>ROUTINE VITAMIN A (RVA)</strong></td>
</tr>
<tr>
<td>Ensure onsite Vitamin A solution availability</td>
</tr>
<tr>
<td>Give Vitamin A to children at site</td>
</tr>
<tr>
<td>Record Vitamin A coverage data</td>
</tr>
<tr>
<td>Report Vitamin A coverage data</td>
</tr>
<tr>
<td><strong>VITAMIN A CAMPAIGN (VAC)</strong></td>
</tr>
<tr>
<td>Pre-camp training</td>
</tr>
<tr>
<td>Mobilization and awareness generation</td>
</tr>
<tr>
<td>Arranging Vitamin A solution at site</td>
</tr>
<tr>
<td>Administering the solution to those identified</td>
</tr>
<tr>
<td>Recording and maintaining data on coverage</td>
</tr>
<tr>
<td>Reporting the coverage data</td>
</tr>
<tr>
<td><strong>POLIO CAMPS (PC)</strong></td>
</tr>
<tr>
<td>Pre-camp training</td>
</tr>
<tr>
<td>Community mobilization</td>
</tr>
<tr>
<td>Booth activity</td>
</tr>
<tr>
<td>Door to door activity</td>
</tr>
<tr>
<td>Record coverage data</td>
</tr>
<tr>
<td>Report coverage data</td>
</tr>
<tr>
<td>Receive incentives</td>
</tr>
</tbody>
</table>

**Note:**

"✓" symbolizes the use of particular method in understanding FLWs' participation in the specific task.

"NA" means non applicable.
b. Field observations

As VHND/MCHN day is a joint (ICDS-Health department) service delivery mechanism at village level that expects frontline coordination in all (including RCI and RVA) services, it was important to observe the actual participation of the three groups of FLWs in RCI and RVA associated and expected tasks on the MCHN day. The camps for child immunisation (PC) and Vitamin A (VAC) were not observed as they are organised bi-annually and none were found during the data collection phase of this study.

Observation checklist

The MCHN day observations were made using a checklist (Appendix 2) that helped observe FLWs' participation in the majority of tasks listed in Table 3.7 under RCI and RVA, which were undertaken at the MCHN day. Apart from FLWs' participation in RCI and RVA tasks, the checklist helped observe: 1) presence and total time spent by the three groups of FLWs on MCHN day (indicator of their joint participation); and 2) the proportion of due-listed children immunised on MCHN day (as an outcome measure of frontline coordination). The MCHN day child immunisation coverage was considered as an outcome indicator of good/limited frontline coordination because the Government of Rajasthan expects FLWs to jointly ensure immunisation of 80 to 100 per cent of due-listed children on each MCHN day. The checklist also had the scope to record additional observations on the joint working of the three groups of FLWs.
Site selection

As the MCHN days are organised monthly at the village level (at least once a month in a tribal village with a population of 700 and non-tribal village with a population of 1000), the village selection was done using multistage purposive sampling. Fig. 3.7 presents the stages i.e. PHC, Sub-centre and village level, followed in the process of selecting 16 villages from both the blocks of Udaipur district in Rajasthan.

**Fig. 3.7: Multistage sampling**

For selecting the PHCs, four (Channi, Baleecha, Pahada and Nayagaon) out of a total six PHCs from the tribal blocks and four (Dabhok, Khemli, Sakroda and Intali) out of a total of ten PHCs from the non-tribal blocks were chosen to get a geographical spread of the blocks. The PHCs with a high urban population were excluded as the NRHM focuses on rural rather than urban areas.
For the sub-centre selection, the list of all sub-centres under each PHC in the original list of all PHCs in both blocks with the details on the presence, names, year of posting and total population covered by the ANM, was obtained from each block office. Of these, Sub-centres from selected PHCs that had no ANM posted, ANM on leave, ANM that served the area for less than 3 years, and ANM who had been managing a very small or large population compared to the national standards were excluded. Finally, two sub-centres from each selected PHC, thus a total of 16 Sub-centres from eight PHCs were selected.

For the village selection, the list of all villages under the selected eight PHCs, their population, availability, name and total years of work experience of their AWWs and ASHA Sahyoginis was prepared using data from the block officials and Census 2001. From this, all villages from the 16 selected sub-centres were identified and villages with very large or very small population compared to the national norms, with the absence and recent appointment (2008 onwards) of the AWWs and ASHA Sahyoginis were excluded. Finally, one village from each selected sub-centre with the ANM, ASHA Sahyoginis and AWW posted and working together for more than three years were selected randomly. The average population size of selected tribal villages was 735 and non-tribal was 1005. Hence each selected village was entitled to conduct one MCHN day per month as per government norms. Finally, the selected villages were assigned codes before data collection to ensure their confidentiality and anonymity during various phases of data processing. The names of selected sub-centres and villages are not identified in this thesis to ensure confidentiality. The
geographical spread of the selected villages from each block was ensured through being derived from the sample of geographically spread PHCs.

Data collection

For planning field visits for MCHN day observations, the block Health departments were approached to obtain the MCHN day annual and monthly micro-plan for their area. These micro-plans included details of the day, date and location of MCHN day. It was planned to observe one MCHN day from each selected village. The MCHN days are usually organised on a Thursday in Rajasthan. The data collection period for this part of the study was October-December 2011 that included 13 Thursdays. Since the dates for the MCHN days in the remaining three selected villages coincided with three of the 13 selected villages, it was decided that an additional field researcher would be involved to observe the three overlapping MCHN days.

For identifying this field researcher, a Rajasthan based non-government organisation (NGO) "Prayas Foundation" was selected and briefed about the study. The curriculum vitae of all researchers proposed by the NGO were scrutinised for their prior experience and engagement with: 1) maternal and child health and nutrition projects and programmes; 2) Health and ICDS department; 3) field work experience in Rajasthan; and 4) field observations and surveys. Seven of a total of 12 proposed field researchers were shortlisted for orientation and training. Three day training was organised by me on study methods, tools, ethical aspects and practice session in the field. At the end, one of the seven field researchers was excluded due to lack of
competency, one of the remaining six was identified for three MCHN day observations and all six participated in the beneficiary survey discussed in the next chapter.

Since the government instructs the MCHN days to be conducted from 10 AM to 6 PM, the MCHN day sites were reached an hour before and left an hour after the completion of the MCHN day. After field visits, meetings between the researchers were organised for the three villages with overlapping MCHN days to discuss the observations made, review field notes and checklists and write the summary of findings for each MCHN day observed. The data from the checklist was entered in an excel sheet whereas the open-ended responses were recorded separately for each village. The data involved double data entry. The open-ended observations were analysed to contextualise the findings.

c.  **Questionnaire based face-to face survey of FLWs**

The MCHN day observation in each selected village was followed by the survey within the next two days of one ANM, AWW and ASHA *Sahyogini* each from the same village using a structured questionnaire.

*Questionnaire design*

The questionnaire was informed by the findings from the formative stage on associated tasks and expected roles of the three groups of FLWs in the RCI, RVA, PC and VAC process. Each set of questionnaires (Appendix3, 4 and 5) focussed on
exploring "Which of the three FLWs participated (either in a primary or in supportive role) in the key tasks involved in the process of RCI, RVA, PC and VAC". Apart from this, the questionnaires had questions on the demographic profile and joint training of FLWs on child immunisation and Vitamin A. These structured bilingual (Hindi and English) questionnaires for ANMs, AWWs and ASHA Sahyoginis were designed and piloted before their final field administration. The pilots were done in a block other than Kherwada and Mavli to avoid any bias.

Respondents

Forty eight FLWs (16 ANMs, 16 ASHA Sahyoginis' and 16 AWWs- one from each group from each village) from the 16 selected villages were targeted for this study. FLWs from Mini-AWCs\textsuperscript{xvii,269} were excluded.

Data collection

The data collection took place from October -December 2011. The data from the non-tribal block was collected first followed by the tribal block. A language translator was recruited, trained and accompanied me in the tribal block with an assumption that some FLWs might need translation of questions in their own dialect rather than Hindi. However this was not the case and all FLWs were able to understand and respond in Hindi.

\textsuperscript{xvii} Mini-AWC is the village institution opened over 150-500 population in rural and 150-300 population in tribal areas by ICDS. This institution is expected to provide all six services of ICDS by the mini-AWW posted. The Mini-AWCs do not have separate ASHA Sahyoginis and ANMs but are to be served by the ANM and ASHA Sahyogini of the main adjoining village.
For the FLWs' survey, the selected FLWs were contacted for their consent, appointment, time and place of the interview. Multiple visits and rescheduling appointments were allowed in the design to accommodate the participants' schedule. Each interview was conducted in a private (FLWs' residence) setting to ensure confidentiality and enable them to express their views about the other coordinating FLWs. Each questionnaire took about 30 minutes to complete and included debriefing and question and answer session. A maximum of two FLWs were interviewed per day as part of the FLW survey and 46 of the 48 FLWs took part in this survey. One ASHA Sahyogini (non-tribal block) and one ANM (tribal block) dropped out despite repeated attempts to meet them.

To ensure data rigour, each questionnaire was checked for any data gaps or errors before leaving the field on the same day. The survey data from 46 respondents was coded and entered in a spreadsheet at the end of the survey using double data entry. The data was analysed at three levels i.e. difference between the three groups of FLWs, difference between four services (RCI, RVA, PCs and VACs) and between tribal and non-tribal villages.

d. Review of registers and records

The Government of Rajasthan expects ANMs to maintain a detailed service delivery register (SDR) that includes data on child immunisation and Vitamin A supplementation along with other village health information. Similarly, both ASHA Sahyogini and AWW are expected to maintain child immunisation and Vitamin A
supplementation registers at the AWC. The register is expected to have details on routine child immunisation and Vitamin A supplementation whereas a separate Vitamin A register is expected from FLWs on camp coverage. For PCs, this data is entered on a separate database and submitted by the ANMs to the Health department officials.

As a measure of coordination and to triangulate other study findings, it was decided to check availability and match data on child immunisation and Vitamin A supplementation between the registers maintained by the three groups of FLWs. Singleton and Straits (1999) suggested such review of existing government data and records as one strategy of social research. But during FLW survey stage, it was observed that only a common child immunisation register existed at the AWC between ASHA Sahyogini and AWW in the selected villages. Also, though both (SDR and AWC child immunisation register) aim to capture routine polio vaccination data, these registers had single columns for "DPT-I/ OPV-I", "DPT II-OPV II" and "DPT III-OPV III" rather than separate for OPV I, II and III which made data match on polio vaccination impossible. No separate VAC and PC registers were found in any of the 16 villages.

Finally data on BCG, DPT I, II, III, measles and the 1st dose of Vitamin A for children up-to the age of one year was reviewed, compared and matched between ANM SDR and AWC child immunisation registers in each village. Fig.3.8 explains
the procedure followed for matching child immunisation data. For Vitamin A data, SDR and AWC child immunisation registers and completed data were reviewed.

It is also important to mention that this exercise had two components: Listing of children up-to one year of age; and matching immunisation and Vitamin A supplementation coverage data between ANM and AWC registers. The former preceded the beneficiary survey (discussed in the next chapter) and the latter was done at the end of data collection using multiple methods.
**Step 1** Village SDR and AWC child immunization register were collected from FLW survey respondents along with few other registers (birth and death and supplementary nutrition register) from the AWCs. The photocopy of child immunization and Vitamin A sections along with birth and death details of children from these registers were retained for analysis.

**Step 2** Separate lists of all children born during past one year from the date of retrieving the registers were prepared from each register per village. These lists had the name of the child, parents (mother/father) and date of birth.

**Step 3** A joint list of all children born within one year of age per village was prepared from all these registers. Total 188 tribal and 200 non-tribal infants were listed.

**Step 4** The above list served two purposes i.e. a) this list was used for mothers' survey discussed in the next chapter and b) the "availability" of children's date of birth and parents' name and "match" of these details was checked between two registers namely- ANM SDR and AWC child immunisation register for each village.

**Step 5** Such data was found "available and matching" for 134 tribal and 144 non-tribal children. These 134 tribal and 144 non-tribal children were arranged village-wise in ascending order as per their age followed by sequential selection of 50 per cent of them from both types of villages.

**Step 6** This led to a list of 67 tribal and 72 non-tribal children from 16 villages. Their eligibility for various vaccines (BCG, DPT I, II and III and measles) were ascertained considering their age in completed months.

**Step 7** The immunization data for each child was compared between SDR and AWC registers for availability and match.

**Step 8** Codes for data available in none/one/both registers and data available in both but matching/not matching in both were used to classify and analyze the data. The data was analyzed using descriptive statistics (frequency and percentage) in Microsoft Excel.
3.6 Results

The following sub-sections present the data obtained from various research methods used in this part of the study. The FLW survey results are presented before the MCHN day observations though carried out in the reverse sequence in the data collection phase. This is because the FLW survey helped collect information on all listed tasks under each of the four joint activities unlike MCHN day observations that were limited to the routine than camp activities.

3.6.1 FLW questionnaire based survey

a. Demographic profile

The ANM and AWWs had a mean age of 39 years but those from tribal villages were seven to eight years younger than their non-tribal counterparts (Fig.3.9). The ASHA Sahyoginis were more than 10 years younger than their ANMs and AWWs with a marginal difference between tribal and non-tribal villages. More than 75per cent FLWs were married.

![Fig. 3.9 Age of FLWs - tribal and non-tribal](image)
All FLWs were Hindu, of which over 70% of the FLWs in tribal villages and 34% of ANM and ASHA Sahyoginis in non-tribal villages belonged to scheduled caste/tribes xviii (Fig. 3.10). The remaining FLWs belonged to the "general" or "other backward caste" categories.

No ANM resided in the work village however 95% of the ASHA Sahyoginis and 75% of the AWWs resided in the work village. The ANMs from tribal villages resided 15 Kms closer to their work place compared to their non-tribal counterparts.

The percentage of all the three groups of FLWs who had formal school education above 10th standard was higher in tribal villages compared to their non-tribal counterparts.

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xviii Caste system is a social stratification (on the basis of labor and power) system in India that classifies Hindus into Brahmins, Kshatriyas, Vaishyas, and Shudras. A group of people that were treated badly and as untouchables by other castes were recognised by Indian constitution as Scheduled castes and tribes whereas those that were economically deprived were known as "Other backward castes" (Wikipedia).
counterparts i.e. 20 per cent more for ANMs, 49 per cent for ASHA Sahyoginis, 25 per cent for AWWs (Fig.3.11). Twenty-four per cent more ASHA Sahyoginis had formal school education above 10th standard compared to their AWWs in tribal villages. In non-tribal villages, two percent more ASHA Sahyoginis had formal school education above 10th standard compared to their AWWs.

![Fig.3.11: Educational status of the FLWs-tribal and non-tribal](image)

Work experience of ANMs and AWWs was five to six years more in tribal compared to non-tribal villages (Fig.3.12).

---

xix In India, the school education system includes three stages i.e. primary school (1st-5th standard), secondary school (6th-10th standard), higher secondary/senior secondary school (11th-12th standard). In some states, 9th and 10th standard are also called high school.
The ASHA Sahyoginis and AWWs were asked if they were related to the local political leaders. While 13 per cent of AWWs working in both the tribal and non-tribal areas were related to local political leaders, 25 per cent of the ASHA Sahyoginis who worked in the tribal areas compared to 43 per cent of those working in the non-tribal areas were related to local politician. The ANMs were not asked this question as they are selected and appointed by the Health department officials rather than the local political leaders.

The results show that FLWs in the tribal villages were on the whole younger, belonged to similar caste groups (scheduled caste/tribes), more educated and have worked for a longer time in the village than those in non-tribal villages. It was also interesting to note that almost double the proportion of ASHA Sahyoginis working in the non-tribal areas were related to local politicians.
b. Joint training

Only 15 per cent of 46 FLWs said they had received any joint training (other than for PC and VACs) where the three groups were present. This proportion was 13 per cent more for tribal (22 per cent) compared to non-tribal (9 per cent) villages. ASHA Sahyoginis appeared to have received more joint training with the ANMs than with AWWs in both-tribal and non-tribal villages (Fig. 3.13). Joint training of ASHA Sahyoginis with both groups of FLWs were more in tribal compared to non-tribal villages.

![Fig. 3.13 Joint training of ASHA Sahyoginis - tribal and non-tribal](image)

<table>
<thead>
<tr>
<th></th>
<th>Tribal</th>
<th>Non-tribal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASHA with ANM</td>
<td>60%</td>
<td>20%</td>
</tr>
<tr>
<td>ASHA with AWW</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

c. Routine child immunisation (RCI)

Table 3.8 presents the actual participation (in primary or supportive role) of ANMs, ASHA Sahyoginis and AWWs in 13 RCI associated tasks. Of these 13, ANMs were expected to participate in nine, ASHA Sahyoginis in 12 and AWWs in 11 tasks. The data presented shows the actual participation of each FLW in each expected task as indicated by her other two co-worker FLWs in both-tribal (T) and non-tribal (NT) villages.
<table>
<thead>
<tr>
<th>S.no.</th>
<th>Key Tasks</th>
<th>ANM</th>
<th></th>
<th></th>
<th>ASHA Sahyogini</th>
<th></th>
<th></th>
<th>AWW</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identification of newborns</td>
<td>Unclear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>√</td>
<td>53</td>
<td>44</td>
<td>48</td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td>Registration of newborns</td>
<td>√</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>√</td>
<td>53</td>
<td>44</td>
<td>48</td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>List eligible children for immunisation on MCHN day (Due-list)</td>
<td>√</td>
<td>56</td>
<td>40</td>
<td>48</td>
<td>√</td>
<td>20</td>
<td>13</td>
<td>16</td>
<td>Unclear</td>
</tr>
<tr>
<td>4</td>
<td>Mobilising community for MCHN day</td>
<td>Unclear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>√</td>
<td>93</td>
<td>88</td>
<td>90</td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td>Prepare AWC for MCHN day</td>
<td>Unclear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>√</td>
<td>13</td>
<td>19</td>
<td>16</td>
<td>√</td>
</tr>
<tr>
<td>6</td>
<td>Arranging vaccines</td>
<td>√</td>
<td>75</td>
<td>40</td>
<td>58</td>
<td>√</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>√</td>
</tr>
<tr>
<td>7</td>
<td>Arranging syringes and other logistics for MCHN day</td>
<td>√</td>
<td>100</td>
<td>93</td>
<td>97</td>
<td>√</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>√</td>
</tr>
<tr>
<td>8</td>
<td>Vaccinate children</td>
<td>√</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>No Role</td>
<td>0</td>
<td>0</td>
<td>No Role</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Manage medical waste</td>
<td>√</td>
<td>88</td>
<td>53</td>
<td>71</td>
<td>√</td>
<td>13</td>
<td>6</td>
<td>10</td>
<td>√</td>
</tr>
<tr>
<td>10</td>
<td>Counsel beneficiaries on MCHN day</td>
<td>√</td>
<td>63</td>
<td>53</td>
<td>58</td>
<td>√</td>
<td>13</td>
<td>6</td>
<td>10</td>
<td>√</td>
</tr>
<tr>
<td>11</td>
<td>Counsel beneficiaries on child immunisation other than MCHN days</td>
<td>Unclear</td>
<td>19</td>
<td>7</td>
<td>13</td>
<td>√</td>
<td>20</td>
<td>19</td>
<td>19</td>
<td>√</td>
</tr>
<tr>
<td>12</td>
<td>Maintain child immunisation register</td>
<td>√</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>√</td>
<td>53</td>
<td>25</td>
<td>39</td>
<td>√</td>
</tr>
<tr>
<td>13</td>
<td>Report child immunisation details</td>
<td>√</td>
<td>75</td>
<td>67</td>
<td>71</td>
<td>√</td>
<td>87</td>
<td>88</td>
<td>88</td>
<td>√</td>
</tr>
</tbody>
</table>
Over 70 per cent of the ASHA Sahyoginis and AWWs reported their ANMs' participation in six of the nine expected tasks though less than 60 per cent reported her participation in the following two (due-list and counselling beneficiaries).

Over 85 per cent of the ANMs and AWWs reported ASHA Sahyoginis' participation in two (community mobilisation and reporting) but less than 50 per cent reported her participation in half (identify newborn, register newborn, prepare due-list, counsel community on MCHN day, counsel community other than MCHN day, maintain child immunization register) of the total 12 expected tasks.

Less than 50 per cent of the ASHA Sahyoginis' and ANMs reported AWWs' participation in all 11 expected tasks. Their limited participation in six of total 11 expected tasks (identifying new-borns, registering new-borns, counselling on MCHN day, and counselling on other than MCHN day, maintaining registers and report coverage) indicated their overall limited participation in RCI compared to the ANMs and ASHA Sahyoginis.

The limited participation of all the three groups of FLWs in vaccine arrangement was due to the task being entrusted to another health department's staff in the recent past as indicated by 35 per cent of the respondents. The low participation of AWWs and ASHA Sahyoginis in AWC preparation was due to over 70 per cent of the respondents that said that this task was primarily done by "Any other" i.e. AWWs'
helper\textsuperscript{20} than FLWs. The less than 50 per cent of the ASHA Sahyoginis and AWWs' participation in arranging logistics and managing medical waste could be due to the primary role and good participation of the ANM seen in these two tasks whereas the limited participation of AWWs in community mobilisation could be due to the primary role and good participation of ASHA Sahyoginis' in this task.

ANMs' participation in a majority of the expected tasks (six out of nine) was proportionately more in tribal compared to the non-tribal villages. Similarly, ASHA Sahyoginis' participation in a majority of the expected tasks (nine out of 12) was proportionately more in tribal compared to the non-tribal villages, with the exception of participation in preparing AWC for MCHN day (19 per cent in non-tribal compared to 13 per cent in tribal) and reporting child immunisation details (88 per cent in non-tribal compared to 87 per cent in tribal). However, this was not the case with AWWs (Fig. 3.14).

\textsuperscript{20}The Anganwadi helper is a female staff from ICDS stationed at each Anganwadi Centre under the Anganwadi Worker. The Anganwadi helper is usually with minimum five years of formal school education. The helper is expected to help AWW in cooking food for visiting children, maintaining the AWC and managing visiting children.
Table 3.9 presents the actual participation (in primary or supportive role) of ANMs, ASHA Sahyoginis and AWWs in six PC associated tasks. Of these six, ANMs were expected to participate in all, ASHA Sahyoginis in three and AWWs in four tasks. Although policy or programme documents reviewed did not mention financial incentives to participating FLWs, but since this was mentioned by 12 FLWs interviewed, it was included as part of the PC process.

d. Polio camps (PC)

Fig. 3.14  AWWs’ participation in RCI tasks - tribal and non-tribal
### Table 3.9: Expected vs. actual participation of each group of FLW in listed tasks associated with polio camps

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Key Tasks</th>
<th>ANM</th>
<th>ASHA Sahyogini</th>
<th>AWW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Expected</strong></td>
<td><strong>Expected</strong></td>
<td><strong>Expected</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>T n=16 (%)</strong></td>
<td><strong>NT n=15 (%)</strong></td>
<td><strong>Total N=31 (%)</strong></td>
</tr>
<tr>
<td>1</td>
<td>Pre-camp training</td>
<td>√</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Community mobilisation for camps</td>
<td>√</td>
<td>81</td>
<td>80</td>
</tr>
<tr>
<td>3</td>
<td>Booth activity</td>
<td>√</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Door to door activity</td>
<td>√</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Record coverage data</td>
<td>√</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Camp coverage data and report</td>
<td>√</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>*</td>
<td>Receive incentives</td>
<td>Not found</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
Over 80 per cent ASHA Sahyoginis and AWWs reported the ANMs' participation in all six expected tasks. All ANMs were reported to be receiving financial incentive for participating in PCs.

Over 80 per cent of the ANMs and AWWs reported their ASHA Sahyoginis' participation in all three expected tasks. Though the participation of ASHA Sahyoginis in the pre-camp training, recording and reporting camp coverage data was unclear from the policy review, all ANMs and AWWs said that their ASHA Sahyoginis participated in the training with one third responding that their ASHA Sahyoginis participated in recording and reporting coverage data. All ASHA Sahyoginis were reported to be receiving financial incentives for participating in PCs.

Over 85 per cent ANMs and ASHA Sahyoginis reported their AWWs' participation in all four expected tasks. Like ASHA Sahyoginis, though policy review did not provide clarity on AWWs' role in recording and reporting PC coverage data, 43 per cent of the AWWs were still reported as participating in this task. All AWWs were reported to be receiving financial incentives for participating in PCs.

No tribal and non-tribal difference was seen in ANMs' participation in five of the six expected tasks, the exception was community mobilisation where one per cent more tribal than non-tribal ANMs' participation was noted. The ASHA Sahyoginis' participation was proportionately better in tribal than non-tribal villages except in
pre-camp training where both areas reported 100 per cent participation. AWWs' participation was found to be better in non-tribal compared to tribal villages in all expected tasks except pre-camp training and community mobilisation where both areas reported 100 per cent participation.

e. Routine Vitamin A supplementation (RVA)

Table 3.10 presents the actual participation (in primary or supportive role) of ANMs, ASHA Sahyoginis and AWWs in four RVA associated tasks. Of these four, ANMs were expected to participate in all, ASHA Sahyoginis in two and AWWs in three tasks.
Table 3.10: Expected Vs. actual participation of each group of FLW in listed tasks followed in the process of routine Vitamin A supplementation

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Key Tasks</th>
<th>ANM</th>
<th>ASHA Sahyogini</th>
<th>AWW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expected</td>
<td>T</td>
<td>NT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n=12 (%)</td>
<td>n=11 (%)</td>
<td>N=23 (%)</td>
</tr>
<tr>
<td>1</td>
<td>Solution Arranged on site by</td>
<td>√</td>
<td>83</td>
<td>82</td>
</tr>
<tr>
<td>2</td>
<td>Solution administered by</td>
<td>√</td>
<td>92</td>
<td>82</td>
</tr>
<tr>
<td>3</td>
<td>Coverage data maintained by</td>
<td>√</td>
<td>50</td>
<td>36</td>
</tr>
<tr>
<td>4</td>
<td>Coverage data reported by</td>
<td>√</td>
<td>42</td>
<td>36</td>
</tr>
</tbody>
</table>
Over 80 per cent ASHA Sahyoginis and AWWs reported ANMs' participation in two tasks (arranging and giving Vitamin A to children) though less than 50 per cent reported her participation in two other tasks (registering and reporting coverage data). Only a quarter of the ANMs and AWWs reported ASHA Sahyoginis' participation in two expected tasks (registering and reporting coverage data). Less than 24 per cent ANMs and ASHA Sahyoginis reported AWWs' participation in three expected tasks (arranging Vitamin A, registering and reporting coverage data). The reason for limited participation of AWWs in arranging Vitamin A solution at the immunisation site could be due to primary role and good participation of the ANM in this task.

ANMs and ASHA Sahyoginis' participation were proportionately better in tribal compared to non-tribal villages. However, this was not the case with AWWs where the proportion of participation was higher in the non-tribal villages in all tasks.

**f. Vitamin A campaigns (VAC)**

Table 3.11 presents the actual participation (in primary or supportive role) of ANMs, ASHA Sahyoginis and AWWs in six VAC associated tasks. Of these six, ANMs were expected to participate in three, ASHA Sahyoginis in three and AWWs all six tasks.
<table>
<thead>
<tr>
<th>No.</th>
<th>Key Tasks</th>
<th>ANM</th>
<th>ASHA Sahyogini</th>
<th>AWW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expected</td>
<td>T n=14 (%)</td>
<td>NT n=15 (%)</td>
</tr>
<tr>
<td>1</td>
<td>Pre-campaign training</td>
<td>Unclear</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Community mobilisation by</td>
<td>Unclear</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Solution arranged on site by</td>
<td>√</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>4</td>
<td>Solution administered by</td>
<td>No role</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Coverage data maintained by</td>
<td>√</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>Coverage data reported by</td>
<td>√</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>
The survey results showed that 42 of 46 FLWs (88 per cent) responded that the VACs were organised in their villages. Of these 42, only 18 (43 per cent) of the FLWs said that training was organised before VACs in their area. All 18 FLWs indicated the joint participation of ASHA Sahyoginis and AWWs in pre-camp training in tribal villages compared to 38 per cent in non-tribal villages. Nil ANM participation was mentioned in these training in both-tribal and non-tribal villages. Hence the data showed limited organisation of pre-camp training for VACs by the state government rather than limited participation of FLWs in such training.

Less than 28 per cent of AWWs and ASHA Sahyoginis reported ANMs' participation in all the three expected tasks (arranging Vitamin A solution on site, recording and reporting coverage data). ANMs' limited participation in arranging Vitamin A solution on site could be due to the primary role and good participation of the AWWs in this task.

Less than 50 per cent of the ANMs and AWWs reported ASHA Sahyoginis' participation in all three expected tasks (community mobilisation, coverage data recording and reporting). However, despite unclear policy guidelines on ASHA Sahyoginis' participation in arranging and providing Vitamin A solution to eligible children, 29 per cent and 62 per cent ASHA Sahyoginis' participation was reported by their ANMs and AWWs in these two tasks respectively.
Less than 50 per cent of the ANMs and ASHA Sahyoginis reported AWWs' participation in four (community mobilisation, giving Vitamin A to children, recording and reporting data) of the total six expected tasks. However, 70 per cent of the ANMs and ASHA Sahyoginis indicated that AWWs participated in arranging Vitamin A solution on site.

The ANMs, ASHA Sahyoginis and AWWs' participation was proportionately better in tribal than non-tribal villages in majority tasks.

Summary: The survey results showed:

- FLWs in the tribal villages were on the whole younger, with less caste based differences, more educated and had worked for a longer time in the village than those FLWs in non-tribal villages. It was also interesting to note that almost double the proportion of ASHA Sahyoginis working in the non-tribal villages were related to local politicians.

- More joint training of the three groups of FLWs for PCs were held than routine service delivery and VACs. Relatively more joint training between either groups of FLWs in tribal over non-tribal villages were reported.

- Better participation of all groups of FLWs in PCs than the other three activities was seen.

- In RCI, limited participation of ASHA Sahyoginis and AWWs in about half the expected tasks, limited ANMs' participation in due-lists whereas limited participation of all the three groups of FLWs in the counselling task was seen.
• In Vitamin A supplementation (RVA and VACs), limited FLWs' participation in data recording and reporting, though better participation in service provision (arranging and giving Vitamin A) was seen.

• Better participation of ANMs and ASHA Sahyoginis from tribal villages in the majority of activities (RCI, RVA, VACs) and tasks, though mixed results for AWWs were seen.

3.6.2 **Field observations**

Four aspects of FLWs' participation: 1) presence in MCHN days; 2) participation in RCI tasks on MCHN day; 3) participation in RVA tasks on MCHN day; and 4) total children immunised against due-listed on each MCHN day were observed.

**a) FLWs' presence:** It was observed that 63 per cent (five tribal; five non-tribal) of the 16 MCHN days were attended by all three groups of FLWs. ANMs were present on all days both at the tribal and non-tribal villages, 88 per cent of the ASHA Sahyoginis and 75 per cent of the AWWs were present at both the tribal and non-tribal villages. The maximum time spent by any group of FLW in MCHN day was about four hours despite government expectation that the event should be for eight hours. On average, the ANMs spent more time in the event at the tribal villages but ASHA Sahyoginis and AWWs spent more time in the event at the non-tribal villages. The AWWs spent the least time on site followed by the ANMs and ASHA Sahyoginis.
b) **Tasks in RCI:** Table 3.12 presents the observed participation of the three groups of FLWs in nine RCI associated tasks. Of these nine, ANMs are expected to participate in seven, ASHA Sahyoginis in eight and AWWs in seven tasks. The observations validated the FLW survey findings in relation to all the three groups.

Firstly, it showed ANMs' good participation (more than 75 per cent) in four tasks (syringes and other logistics on site, administering vaccines, waste management
and maintaining child immunisation records) but limited in one (counselling) of the total seven expected tasks. In the other two tasks (due-list and vaccine arrangement), though the FLW survey showed 48 per cent and 58 per cent of the ANMs' participation, the observations showed 80 per cent and 75 per cent respectively.

Secondly, the observation also showed ASHA Sahyoginis' limited (less than 40 per cent) participation in seven (due-list, AWC preparation, vaccine arrangement, logistics arrangement, waste management, counselling and register maintenance) but good (88 per cent) participation in community mobilisation. Finally, the observation showed AWWs' limited (less than 40 per cent) participation in all seven expected tasks (community mobilisation, AWC preparation, vaccine arrangement, logistics arrangement, waste management, counselling and register maintenance) thus validating FLW survey results.

Limited participation of ASHA Sahyoginis and AWWs in AWC preparation and its reason mentioned in FLW survey results was validated by observation findings that showed this task performed by AWC helper in 69 per cent of the villages. Limited participation of ASHA Sahyoginis and AWWs in vaccine, logistics and waste management tasks could be due to primary responsibility and good participation of the ANM in these tasks.
On tribal and non-tribal comparison, the observations validated FLW survey findings by showing better ANM participation in due-list and counselling tasks in tribal compared to non-tribal villages but showed no tribal and non-tribal difference in the remaining tasks where the FLW survey showed better participation in tribal than non-tribal villages. The observations validated FLW survey results showing better ASHA Sahyoginis' participation in tribal than non-tribal villages in the majority (due-list, community mobilisation, waste management and register maintenance) of expected tasks. The observations triangulated the FLW survey which showed mixed results for AWWs. Of the seven expected tasks, observations showed no tribal and non-tribal difference in AWWs' participation in four tasks though her better participation in two tasks (AWC preparation and recording data) in tribal villages and one task (community mobilisation) in non-tribal village.

c) **Tasks in RVA:** Table 3.13 presents the observed participation of FLWs in three RVA associated tasks. The children eligible for receiving the first dose of Vitamin A were found in 11 (69 per cent) of 16 villages.

The observations validated the FLW survey finding showing good (more than 68 per cent) ANMs' participation in service provision (arranging and providing Vitamin A to children on site) but limited (less than 20 per cent) participation in recording the coverage data. Similarly, the observations validated FLW survey findings for ASHA Sahyoginis and AWWs showing their limited participation in service provision and data management (less than 20 per cent).
The MCHN day observations and FLW survey results confirmed limited participation of all the three groups in RVA data recording. Marginally better data management was observed in non-tribal than tribal villages in both-ANM and AWC registers contrary to the FLW survey findings.

**Table 3.13: FLWs' participation in RVA tasks as observed in MCHN days**

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Key observations</th>
<th>Tribal (%)</th>
<th>Non-tribal (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vitamin A solution arranged by Tribal (n=8), Non-tribal (n=8); Total (N=16)</td>
<td>ANM</td>
<td>75</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Any other</td>
<td>25</td>
<td>38</td>
</tr>
<tr>
<td>2</td>
<td>Number villages where children eligible for Vitamin A 1st dose were due-listed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tribal (n=8), Non-tribal (n=8); Total (N=16)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>75</td>
<td>63</td>
<td>69</td>
</tr>
<tr>
<td>3</td>
<td>Number of villages where eligible due-listed children were given Vitamin A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>solution. Tribal (n=6), Non-tribal (n=5), Total(N=11)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Vitamin A solution to eligible due-listed children given by Tribal (n=6), Non-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>tribal (n=5), Total(N=11)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ANM</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Number of villages where data on Vitamin A coverage of eligible due-listed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>children was recorded in following registers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tribal (n=6), Non-tribal (n=5), Total(N=11)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ANM SDR</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWC Register</td>
<td>17</td>
<td>20</td>
</tr>
</tbody>
</table>

d) **Immunisation coverage as an outcome:** Of the 16 villages, no due-list was available in three villages. Of these 13, five (38 per cent) achieved the target of immunising more than 80 per cent due-listed children on the MCHN day (Fig.3.15). This included three tribal (43 per cent) and two (33 per cent) non-tribal villages. Among the remaining four (57 per cent) tribal villages, the coverage varied between 30 per cent to 75 per cent whereas in four (67 per cent) non-tribal villages it varied between 30 per cent to 50 per cent. The mean coverage was 15 per cent more in tribal than non-tribal villages.
Summary: The MCHN day observations showed

- Limited joint presence and time spent by the three groups of FLWs on MCHN days;
- Poor (though more in tribal than non-tribal villages) child immunisation coverage on MCHN days;
- Validated FLW survey results by showing -
  - Good participation of ANMs in RCI (except counselling) and RVA (except data recording),
  - Limited participation of ASHA Sahyoginis (except community mobilisation) and AWW in RCI and RVA,
  - Limited participation of the three groups of FLWs in RVA data recording and counselling on MCHN days,
- Better/equal status of tribal with non-tribal villages in terms of ANMs and ASHA Sahyoginis’ participation in almost all RCI and RVA observed tasks though mixed results on AWWs’ participation in RCI and RVA.

3.6.3 Review of FLWs’ registers and records

The objective of this exercise was to understand data coordination between the three groups of FLWs on child immunisation and Vitamin A supplementation and triangulate FLW survey and observation findings.

a) **RCI:** Fig. 3.16 shows vaccine coverage data "available and matching" for all listed, eligible and sequentially selected infants for each vaccine from the study villages. It was observed that the data availability on all the vaccines was better in ANMs' SDR than AWC registers. The data "availability and match" between ANM SDR and AWC register was poor (less than 40 per cent) for all vaccines. The data "availability and match" was better in tribal than non-tribal villages for all vaccines except measles.
b) **Vitamin A:** It was observed that all 16 ANMs but only 11 AWCs (six tribal; five non-tribal) were using formal child immunisation registers and remaining five AWCs were not using the official registers but were writing it down on paper that had no provision/columns for recording Vitamin A coverage data. No separate Vitamin A register/list was found with any ANM or AWCs. Table 3.14 compares the ANM SDRs and AWC child immunisation registers that had provision for recording Vitamin A coverage data for various doses.
All tribal and non-tribal ANM SDRs had columns to record Vitamin A first dose data but varied in availability of columns for the remaining doses. Wide variation existed between tribal and non-tribal AWC child immunisation register formats for all doses. Variations existed between ANM and AWC registers for the majority of doses. Such discrepancies that were observed in ANMs' SDR and AWC child immunisation register formats limited the data matching exercise for Vitamin A.

For Vitamin A coverage data recoded by the FLWs, Table 3.15 presents the tribal and non-tribal comparison of the number of ANM and AWC registers that had columns for recording various Vitamin A doses against the proportion of those that did maintain the data for more than 50 per cent eligible children for each dose.
Table 3.15 shows that: 1) less than 18 percent of ANMs and AWCs from both tribal and non-tribal villages maintained Vitamin A 1st dose coverage data for over 50 percent of eligible children; 2) data availability on the 1st dose was comparatively better in tribal than non-tribal villages in both ANM and AWC registers; and 3) data recording despite availability of columns in the reporting formats was poor for all other doses in both registers in tribal and non-tribal villages.

**Summary:** The register review results showed

- Poor data availability in AWC registers that resulted in poor data match between ANM SDR and AWC registers on all vaccines. The data "availability
and match" was comparatively better in tribal than non-tribal area on all vaccines (except measles).

- Non-uniform formats and poor data recording was noted on all doses of Vitamin A by both ANMs and AWW/ASHA Sahyoginis in tribal and non-tribal villages though the "data availability" on 1st dose of Vitamin A (RVA) was comparatively better in tribal than non-tribal villages in both-ANM SDRs and AWC registers.

- Validated FLW survey and MCHN day observation results on poor maintenance of child immunisation data by the AWWs and ASHA Sahyoginis, poor maintenance of Vitamin A data by all groups of FLWs and comparatively better data maintenance in tribal than non-tribal villages in both the cases.

### 3.7 Discussion

Fig.3.17 summarises the findings on participation of the three groups of FLWs in RCI, RVA, PACs and VACs and the associated outcome.
Fig. 3.17: Summary of frontline participation and outcomes from mixed methods and government guidelines

<table>
<thead>
<tr>
<th>PC</th>
<th>RCI</th>
<th>RVA</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint training with good joint participation</td>
<td>Limited joint training (other than pre-PC and Pre-VAC) of three FLWs*</td>
<td>Good ANMs' participation in majority expected tasks</td>
<td>Limited joint training hence limited joint participation</td>
</tr>
<tr>
<td>Good ANM, ASHA and AWW participation in all tasks</td>
<td>Limited ASHA and AWW participation in majority expected tasks</td>
<td>Good ANMs' participation in service provisioning</td>
<td>Good participation of AWW in arrangement and ASHA in delivery</td>
</tr>
<tr>
<td>Incentives to all participating groups</td>
<td>Limited ANM, ASHA and AWW participation in data management</td>
<td>Limited ANM, ASHA and AWW participation in data management</td>
<td>Limited ANM, ASHA and AWW participation in data management</td>
</tr>
<tr>
<td>ANM (T=NT) ASHA (T=NT) AWW (NT&gt;T)</td>
<td>ANM (T=NT) ASHA (T=NT) AWW (Mixed)</td>
<td>ANM (T=NT) ASHA (T=NT) AWW (NT&gt;T)</td>
<td>ANM (T=NT) ASHA (T=NT) AWW (T-NT)</td>
</tr>
<tr>
<td>Incentives to only ASHA Sahyogini**</td>
<td>Incentives to none***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Limited child immunisation coverage on MCHN day (T>NT)

*T*- Tribal, NT - Non-tribal


*** No government guideline on incentives for any FLW group for VACs was found
Fig. 3.17 shows good frontline coordination in PCs that was characterised by joint pre-camp training, joint community mobilisation, joint booth and door to door service delivery, incentives to all FLW groups along with the participation of ASHA Sahyoginis and AWWs in data recording and reporting despite unclear guidelines and role duplication in some PCs associated tasks.

In the routine service delivery (RCI, RVA), limited FLW coordination was characterised by

- Limited joint training of FLWs,
- Absenteeism of ASHA Sahyoginis and AWWs and inadequate time spent by all the three groups during MCHN days,
- Good ANM participation in majority tasks (except data management in Vitamin A) but limited ASHA Sahyoginis and AWWs' participation in the majority tasks
- Poor RCI data "availability and match" between ANM and AWC registers,
- Non-uniform register formats and limited participation of the three groups of FLWs in RVA data management,
- Overall poor participation of the three groups of FLWs in counselling on and other than MCHN days,
- Incentives to only ASHA Sahyoginis compared to the other groups and
- Unmet targets of child immunisation in MCHN days (outcome).
Similarly, the VACs were characterised by limited joint training, limited frontline participation in community mobilisation, data management and no incentives to any participating FLW groups.

Apart from this primary data on the limited FLW participation ("process") in routine service delivery and immunisation coverage on MCHN days ("outcome"), the secondary data (NFHS III) also show the overall dismal state of child immunisation and Vitamin A coverage in Rajasthan compared to India as a whole (Fig. 3.18). The NFHS III data also show better coverage of polio compared to DPT, measles and Vitamin A at the state and national level.

![Fig. 3.18: India vs. Rajasthan comparison of child immunisation and vitamin A coverage](source)

(Source: NFHS III, 2005-06, India: Volume II, Mumbai-IIPS)
The poor Vitamin A coverage as shown by NFHS III means overall poor coverage ("outcome") of children through both-RVA and VAC thus substantiating the limited frontline participation in Vitamin A supplementation as found in this study. Similarly, the fact that 20 percent more children received polio vaccine compared to DPT vaccine despite the rule that three doses of polio and DPT vaccine are given together to each eligible infant during routine immunisation process also substantiates the better frontline participation in PCs.

Such better frontline participation and outcomes in polio than any other vaccine can be explained by some findings from this study. It appears that joint training, incentives to all participating groups of FLWs and political will are the important drivers of frontline participation in the joint activities.

Good frequency and joint attendance of FLWs in PC training compared to limited frequency and hence poor joint participation of FLWs (mainly ASHA Sahyoginis and AWW) in VACs underlines the association of joint training with the good frontline coordination in PC compared to VACs. Similarly, limited organisation and hence participation of the three groups of FLWs in joint training for routine service delivery (RVA and RVA) underlines limited frontline participation in RCI and RVA.

Provision for incentives to all groups of FLWs for participating in PCs, no government policy on incentives to any FLW group for participation in VACs and a policy on incentives for only ASHA Sahyoginis for organising MCHN day (RCI and
RVA) can also explain the good frontline coordination in PC rather than RCI, RVA and VACs\textsuperscript{272}. Better ASHA *Sahyoginis'* participation in community mobilisation and data reporting (the two tasks directly monitored by her supervisors to decide her incentives) in RCI than in any other RCI expected task further strengthens the argument on the contribution of incentives in ensuring frontline participation in coordination dependent activities.

Perhaps the national and states' political will on eradication of polio as part of their commitment to the international community could also be a contributory factor resulting in better frontline coordination in this activity\textsuperscript{273}. Such political will could have contributed to the states' provision and funding of joint training and incentives for PCs. The polio camp model was also integrated with periodic monitoring and surveillance and mass media campaigns for peoples' awareness. Such a programme design itself is indicative of governments' seriousness on polio eradication from the country. On the contrary, the issues of non-uniformity of Vitamin A registers, poor data recording by any group of FLW on its coverage, limited joint training and no incentives for Vitamin A indicate lack of political will, hence funding, infrastructure, monitoring and supervision of frontline coordination in Vitamin A supplementation.

While comparing tribal and non-tribal villages, the relatively better frontline participation (especially ANMs and ASHA *Sahyoginis*) in the majority of activities and tasks along with better child immunisation coverage on MCHN day (outcome) in tribal compared to non-tribal villages can also be explained through the demographic
and political differences in the types of study villages. The tribal villages were characterised by younger, more educated, more experienced ANMs who lived closer to their work villages than the non-tribal ANMs. Similarly, the ASHA Sahyoginis from tribal villages were more educated and smaller proportions were related to the political leaders compared to their non-tribal counterparts. Moreover, fewer caste differences among the three groups of FLWs in tribal compared to the non-tribal villages, especially in Rajasthan context where the caste system is strictly followed, could be an important factor for better coordination amongst FLWs in tribal than non-tribal villages.

But for AWWs' limited participation in majority activities and tasks in both-tribal and non-tribal villages, the reasons had to be beyond age, total years of on-job experience and distance of residence from the work village. This is because the average age of AWWs was same as their ANMs, their on-job work experience was more than even ANMs and majority stayed in the work village than travel from distant locations. Limited education and role clarity along with role duplication and lack of accountability of either ASHA Sahyoginis or AWWs to perform joint tasks appear to be some reasons that could have affected their participation in joint activities.

The institutional and developmental initiatives, apart from the personal and professional reasons explained above, can also explain the tribal and non-tribal difference found in this study. The government of Rajasthan and the World Banks' joint project on "Rajasthan Health Systems Development" since 2004 has been
working to improve service availability, quality, demand and access in six tribal districts of Rajasthan, including Udaipur (the study district)\textsuperscript{274}. This project involves the ICDS and Health departments to strengthen existing systems (including infrastructure, human resources, training and incentives) and generate demand with improved service outreach. The RCH II programme implementation plan also has a focus plan for tribal areas with earmarked funding\textsuperscript{275}. The NRHM has posted a second ANM in addition to the existing ANM in the majority tribal villages. This initiative also could have improved the frequency of joint meetings and hence coordination between the FLWs in tribal compared to the non-tribal villages.
CHAPTER 4

PARTICIPATION OF FRONTLINE WORKERS IN CHILD IMMUNISATION AND VITAMIN A SUPPLEMENTATION—EVIDENCE FROM THE MOTHERS' SURVEY
4.1 Introduction

As programme beneficiaries are important stakeholders that interact with and are affected by good/lack of frontline coordination, it was considered important to include their perspective in this study. As in the child immunisation and Vitamin A services the beneficiaries are children but considering the study objectives, their mothers were interviewed.

4.2 Objectives

1. To understand the frequency and purpose of joint contacts made by the three groups of FLWs with the mothers of children eligible for child immunisation and Vitamin A supplementation-a process indicator of frontline coordination

2. To assess the knowledge of mothers on child immunisation and Vitamin A-an associated outcome indicator of frontline coordination

The first objective was to triangulate findings on regular monthly joint contacts by three FLWs with mothers of eligible children on MCHN days and the "counselling and advice" task. Both these were process indicators of frontline coordination. The second objective-knowledge of mothers on child immunisation and Vitamin A supplementation was to validate the state of frontline participation in four activities ("process dimension") and to reflect on the state of immunisation coverage ("outcome").
4.3 Methodology

a. Respondents

Since the likelihood of contact between the three groups of FLWs and mothers is more during infancy, because the focus of RCI and RVA is children up-to one year of age, it was decided to include these mothers in this study. Also, since the likelihood of information about frontline coordination and any outcome in terms of improved knowledge due to good frontline coordination was expected to be more in mothers that were listed with the FLWs in their registers, identifying such mothers from available FLW registers was considered.

This study was also conducted in the same 16 villages selected from the two blocks of Rajasthan as discussed in the previous chapter (Fig. 3.7). An estimate of 27 to 30 live births per 1000 population in non-tribal and per 700 population in tribal villages was given by the block officials. This meant that there would be about 390-400 infants from 16 villages. For the purpose of identifying infants' mothers, the list described in Fig. 3.8 in the previous chapter was used. This list of 388 children included those 278 infants (134 tribal and 144 non-tribal) whose basic profile data matched between ANM SDRs and AWC child immunisation registers. The list of other 110 children was verified for their profile details with other registers such as birth and death register and supplementary nutrition registers maintained at AWCs. The final list had 388 infants, each of whom was assigned a unique identification code for the purpose of data collection.
b. **Method**

A questionnaire survey using structured bilingual questions was planned with mothers of all the identified infants (Appendix6). The structured questionnaire was piloted in a block other than Kherwada and Mavli. Reluctance of respondents to give written consent due to varied reasons (e.g. fear of being harassed by the male family members, FLWs and other department officials for giving any information if identified in any way) was observed during the pilot stage hence informed verbal consent was considered appropriate for final data collection.

c. **Data collection and analysis**

The survey was conducted by a team of six local field researchers who were recruited, trained, supervised and incentivised (Refer to 3.5.2b). Each member of the survey team was given a list of names and assigned codes for the three FLWs from each village along with survey questionnaires. Each surveyor was given ₹150 for each completed questionnaire with an additional ₹200 for daily food, transport and phone expenses\(^\text{xxi}\). The survey team was accompanied by me for monitoring and supervision. This survey in each village was completed in one to two days before proceeding to the next village\(^\text{xxii}\).

\(^{\text{xxi}}\) 1 GBP was approximately £.80 in December 2011

\(^{\text{xxii}}\) The overall data collection in each village was planned in a way that it took one day for MCHN day observation; two days for FLW survey; one day for child listing; two days for mothers' survey; and one day for back checks and left over work (if any). The complete timeline of this DPhil is enclosed in Appendix 7.
At the start of the survey, each respondent was informed about the teams' identity, survey objectives, nature of questions and estimated time required to complete the questionnaire before obtaining informed verbal consent (Appendix 6). Each questionnaire took an average of 20 minutes to complete. Approximately six questionnaires were completed per day per surveyor. All completed questionnaires were reviewed by the researcher before leaving the field. A tally sheet for marking completed questionnaires, missing cases and incomplete/erroneous data was completed by me on site for each village. This facilitated back-checks and follow up in required cases.

Finally, 321 (178 from tribal and 143 from non-tribal mothers) out of total 388 listed mothers were included in the survey. The drop-out rate in non-tribal area was about 29 per cent which was mainly due to the migration of women to their parents' home (usually in Udaipur city) after child birth. The drop-out rate from tribal villages was due to non-availability of the respondents despite three home visits by the field staff as well as post natal migration with husbands employed in the adjoining more prosperous state (Gujarat). For data analysis, data from tribal and non-tribal villages were entered separately. Data entry was validated by double entry of data.
4.4 Results

a) Joint meeting with FLWs: Fig. 4.1 presents the status of meetings (individual and joint) of survey respondents (tribal and non-tribal) with their FLWs in the last two months. The results showed that though 67 per cent of the respondents met at least one of the three FLWs (individually/jointly), only 50 per cent (20 per cent more from tribal than non-tribal) met their three FLWs together. The majority (97 per cent) of these 50 percent mothers met their three FLWs on MCHN days. Of these 50 per cent, only 24 percent mothers met their three FLWs together twice in last two months and the remaining 76 percent met only once.

![Fig. 4.1 Mothers who met their FLWs in the last two months-tribal and non-tribal](image)

b) Counselling and advice: Fig. 4.2 presents the proportion of respondents that indicated "counselling and advice" as a task undertaken by their FLWs on and/or
other than MCHN days when probed and not un-probed. "Un-probed" response means when those respondents who said to have met all three FLWs on MCHN day were asked a general question about activities that their FLWs conduct on MCHN days whereas "probed" response means when all 321 respondents answered to a specific question on "counselling and advice" on child immunisation ever done by their FLWs. Fig. 4.3 presents the proportion of participation of the three groups of FLWs in "counselling and advice" as indicated by respondents when probed on "counselling and advice" task conducted by their FLWs.

**Fig. 4.2: Mothers who confirmed "counseling and advice" by their FLWs on/other than MCHN days - tribal and non-tribal**

Fig. 4.2 shows limited "counselling and advice" by FLWs from both, un-probed (12 percent) and probed responses (26 percent). Twenty-two per cent more mothers from tribal than non-tribal villages indicated the undertaking of this task by their
FLWs when probed. Of the 26 percent probed responses, 77 percent, 48 percent and 33 percent indicated ANMs, ASHA *Sahyoginis* and AWWs' participation in this task respectively (Fig. 4.3). The ANMs' participation in tribal villages was 43 percent more than non-tribal villages whereas the ASHA *Sahyoginis* and AWWs' participation in non-tribal villages was more by 41 percent and 17 percent than in the tribal villages.

![Fig.4.3: Mothers who indicated ANM, ASHA and AWW's participation in "counseling and advice"- tribal and non-tribal](image)

c) **Knowledge of the respondents:** Fig. 4:4 presents the proportion of respondents from the total of 321 (178 tribal and 143 from non-tribal) who had knowledge about diseases prevented by child immunisation and Vitamin A supplementation. The results showed that only 25 percent could name at least one disease prevented
by any vaccines given to children up-to the age of one, 31 per cent could correctly report the reason for administering polio vaccine to their children and only four per cent could correctly report the reason for Vitamin A given to their children. Six per cent more mothers had knowledge about the purpose of polio vaccination to children than other vaccines that prevent diseases like tuberculosis, measles, whooping cough, tetanus and diphtheria. The knowledge of mothers about the reasons for giving Vitamin A to their children was minimal. The knowledge of mothers was better in tribal than non-tribal area (except tetanus).

![Fig.4.4: Mothers that had knowledge on the diseases prevented by vaccination and vitamin A in children upto one year of age-tribal and non-tribal](image)

### 4.5 Summary and discussion

The results showed limited joint contact and counselling and advice services by the three groups of FLWs to the mothers and hence limited knowledge amongst the
mothers about the importance of child immunisation and Vitamin A supplementation.

The results also showed that:

- MCHN day is an important coordination platform for FLWs and mothers
- Mothers' knowledge of polio was better than any other vaccine prevented disease and least about Vitamin A supplementation
- Comparatively better status of all the three indicators (joint meetings, counselling and advice and knowledge amongst mothers) in tribal than non-tribal villages

These results also validated findings from the FLW survey and MCHN day observations about poor participation of the three groups of FLWs in counselling services, better frontline participation in polio related activities and comparatively better frontline participation in tribal than in non-tribal villages.

The lack of knowledge among the mothers demonstrates poor frontline participation in joint/common tasks such as counselling. This limited FLWs' participation hence mothers' knowledge could be one of the reasons for poor immunisation coverage on MCHN days as seen in the previous chapter because good FLWs' participation in joint tasks like counselling is expected to improve mothers' knowledge which is further expected to increase service demand and coverage. This argument also holds true in the case of polio. The relatively better
knowledge among mothers on polio than any other vaccines is probably associated with the better frontline coordination, along with other factors in PCs than RCI, RVA and VACs and better polio immunisation coverage in the state (as discussed in the previous chapter). Similarly, poor knowledge of mothers on Vitamin A supplementation than child immunisation could be due to the limited frontline coordination in this area, along with other factors, that together would have resulted in less than 15 percent Vitamin A coverage (of any dose) through RVA as well as VACs in Rajasthan as discussed in the previous chapter.

Thus this study helped validate and substantiate some of the results discussed in the previous chapter and added the additional perspective of beneficiaries to the overall understanding on frontline coordination.
CHAPTER 5

EXPERIENCE OF FRONTLINE WORKERS AND THEIR LINE MANAGERS ON FRONTLINE COORDINATION- A QUALITATIVE STUDY
5.1 Introduction

The formative stage results from Chapter 3 showed that the "process flow" i.e. list of tasks and assignment of each task to a specific actor for all four activities (RCI, RVA, PCs and VACs) was not standardised by the government, as was the case mentioned by Malone where the business organisations were said to do so for better management of coordinated functions. The formative stage results also showed role duplication rather than role clarity for FLWs on many tasks within the process of service delivery in the four activities. Thus the government instruction to FLWs to "participate" in the four activities in a state where the task flows are not standardised and duplicate roles and lack of role clarity exist, it may ensure "attendance" but not quality and the required extent of FLWs' participation in coordinated activities. In such cases, the extent of participation of FLWs in coordinated activities will depend on mutual adjustments or mutual relationships than accountability. The mutual relationships are usually the result of past experiences and observations of working together.

Even though the results from Chapter 3 and Chapter 4 (limited participation of FLWs in three of the four coordinated activities, absenteeism at MCHN days, participation in selective rather than majority expected tasks and task shifting) indicated poor mutual adjustments among FLWs, it was important to directly explore FLWs' experience of working together.
Thus this part of the study focussed on understanding the "working relationship" between the three groups of FLWs as an important determinant of frontline coordination (as stated by Whittington 2003). This inter-worker relationship was explored through understanding the FLWs' experience of joint working with each other in the past. Other than the FLWs, the perception of the ICDS and Health (RCH/NRHM) departments' line managers about frontline coordination was considered important as they observe, review and understand this frontline coordination from the larger systems' perspective.

The scope of this study was not limited to child immunisation and Vitamin A supplementation because the "FLWs' working relationships" are not only dependent on their joint work in these two areas but is also affected by a range of day to day interactions and activities that they perform together/in support/in person.

5.2 **Aim:** To understand the experience and observation of FLWs and their line managers about FLWs' joint working and their suggestions for improvement in frontline coordination.

5.3 **Methodology**

a. **Study participants**

The study was conducted in the same 16 villages as referred in Chapter 3 and Chapter 4. Same three groups of FLWs (ANM, ASHA Sahyogini and AWW) from 16 villages, who were the part of FLW survey discussed in Chapter 3, were also the part of this study. Thus a total of 48 FLWs were targeted of which 46 could be
included with two drop outs (one ANM and one ASHA Sahyogini) due to medical
and personal reasons.

For the selection of line managers, criteria such as working in the study area for at
least three years with at least three years in the current post and availability for the
interview were used. The ICDS line managers that were included were-the lady
supervisors from the sector, Community Development Project Officers (CDPOs)
from the block and the Project Director from the district levels. The Health
department line managers that were included in the study were-the Medical
Officers and Lady Health Visitors from sector, Chief Medical Officers (CMOs)
from block and the Chief Medical and the Health Officer (CMHO) from the district
level. Hence a total of 17 line managers representing ICDS and the Health
department from various administrative levels and both-tribal and non tribal areas
were included in the study. The ICDS district head could not be included despite
repeated attempts and appointments.

b. Method

The IDIs using interview guides were used with both categories of participants i.e.
FLWs and line managers. Separate interview guides with open-ended questions
were used. The interview guides were bilingual and piloted along with other study
tools as discussed in the previous chapters. Each interview guide had questions on
the "experience/observations" of frontline coordination, "reasons for such
experience/observations" and "suggestions" for better frontline coordination. The interview guides are enclosed (Appendix 8,9,10 and 11).

c. **Data collection, transcription and translation**

The IDIs of the 46 FLWs that were part of the FLW survey were planned and conducted following their consent at the place convenient to them. The interviews of those FLWs who gave consent for the survey based questionnaire and interview on the same day were conducted on the same day considering that the survey took about 30 minutes and the interview took 45 minutes with each participant. The inherent linkage between the FLW survey and IDI tools facilitated the information flow from the FLWs.

For recording the interviews, audio recording was used for those FLWs that gave consent for the same and note taking was used for the remaining. No more than two interviews were conducted on the same day to ensure data quality. Each interview was given a code to maintain anonymity and participants' confidentiality.

The audio recoded interviews were transcribed and those in the field notes format were reviewed to prepare final notes. Both the formats were shared with the respective FLWs for their final review, comments and approval. The final transcripts of both formats were translated from Hindi (language of interview) to English before data coding and analysis.
Similarly, the interviews of 17 line managers were conducted at the place (in the majority cases their home) and time of their convenience. This set of interviews was conducted after completing the village level data collection. Similar to the FLWs, the majority of interviews were audio recorded (with consent from the line managers) and field notes were taken for the rest. The audio recordings and notes were reviewed, transcribed, shared with the participants for final comments and translated before analysis.

d. **Data coding and analysis**

The data analysis was inductive in approach that allowed the emergence of various codes and themes from within the text rich data\(^{276}\). It was also made sure that the transcripts of completed interviews were read from time to time during the data collection phase to understand the emerging patterns from the data.

Each interviews' translated transcript was read about four to five times to become familiar with the data before coding. Each interviews' content was reviewed to answer to three key questions or broad domains i.e. "experience/observation on frontline coordination", "reasons for such an experience/observation" and "suggestions for better frontline coordination". Firstly, open coding was done under each domain. The associated codes were clubbed to form themes within each domain. Thus the coding exercise helped identify the broad themes, frequencies and quotations under each code with these themes that helped reflect on the three study domains.
Manual rather than software based analysis was preferred and used. Separate sheets for each category of participants i.e. ANMs, ASHA Sahyoginis, AWWs and line managers were made to understand their experience and suggestions. Since the majority of codes that emerged from the interviews of the four categories of participants overlapped, a joint-code based analysis of all four categories of participants was also done to understand the frequency distribution and quotations. Thus the final list of codes included any issue/reason mentioned by one or more participants from any category on its effect on frontline coordination. This process helped capture the range and intensity of issue/reasons mentioned by the participants. The proposed suggestions by the participants were also classified under each code using such joint code list.

To check data coding, an independent researcher was involved to code four randomly selected interview transcripts (one from each category of participants). The independent researcher had prior knowledge and experience in qualitative data analysis and was oriented about the study objectives. The results were compared and discussed.

The following section presents the study findings drawn from this joint analysis of findings from all categories of participants. The frequencies against each code within a sub-theme are referred as "Majority" if it was mentioned by more than 50
per cent of those interviewed under each category, "Half" if by 50 per cent, "Some" if by 30-49 per cent and "Few" if by 9 per cent or less under each category.

5.4 Findings

a. Experience/observation on frontline coordination

The majority of participants from all categories (ANMs, ASHA Sahyoginis, AWWs and line managers) expressed their dissatisfaction about joint working between the three groups of FLWs in their area. This overall perception of participants about "joint working" of FLWs and hence their work relationship was found to be influenced by the "independent" yet interconnected functions performed by FLWs (AWWs and ANMs) as part of their job descriptions as well as "supportive" functions performed by each towards common activities".

In relation to ASHA Sahyoginis who's almost all functions are supportive to either the AWWs or ANMs or both, the majority of ANMs, AWWs and line managers complained about their non-performance of supportive functions. Non-performance of functions like home visits, due-listing children for MCHN day, regular attendance at the AWC and on MCHN day, maintaining child records and sharing village data with ANMs and AWWs were reported. ASHA Sahyoginis were said to be disinterested, de-motivated, not serious and manipulative in their work.

"She doesn't share any information with me. I get to know it from others or doctor or AWW but not her even if she knows everything"...ANM, Non-tribal village

"ASHAs do not make required field visits nor come to the AWC everyday for marking their attendance. They do not support us in ICDS work"...AWW, Tribal village
"The ASHAs don’t work and also don’t listen to us... She has more work with ANM. But they hardly do it"... Line manager

About AWWs that have both-independent as well as supportive roles, the majority of ASHA Sahyoginis and line managers, along with a few ANMs complained about poor independent role performance and limited support by AWWs in common activities. The majority ANMs said that their interaction with AWWs is limited. Non-performance in the AWCs' day to day functions, absenteeism at AWC and on MCHN day, unofficial shifting of her tasks to ASHA Sahyoginis under the pretext of "seeking support" and lack of support to ASHA Sahyoginis in immunisation, community mobilisation and data management were reported.

"I help her in everything but I don’t get any help from her in anything. The AWW doesn’t help in the immunisation. These registers are to be filled by us but she does not help in filling these registers"... ASHA Sahyogini, Tribal village

"She doesn’t work herself but passes all the work to ASHA. She is casual in her work approach and refuses to do any work even if the seniors give her some" ANM, Non-tribal village

"Their AWWs hardly come to the AWC. They do not support our staff in immunisation"... Line manager

About the ANMs who also have both-independent as well as supportive roles, few participants from all categories complained about ANMs' poor independent role performance as well as limited support in common activities. The majority AWWs said that their interaction with ANMs is limited. Irregular, unorganised and limited time spent by ANMs on MCHN day, less frequent than expected village visits, lack of support with register maintenance, joint field visits and problem solving by ANMs were reported.

"They (ANM) come around 11 or 12 noon to vaccinate the children and go back at 1 PM. I am unable to gather people in one hour. So they just vaccinate the
children who are already present and go back"...ASHA Sahyogini, Non-tribal village

"She (ANM) comes and does the immunization only when we call her to do so in the village otherwise she doesn’t work"...AWW, Tribal village

"The majority of ANMs come from Udaipur city using public transport hence reach the work site by 11 AM and leave by 2 PM. They cannot produce results by working just three hours a day"...Line manager

Dissatisfaction about FLWs' independent and joint performance was indicative of poor inter-personal and inter-professional relationships between the FLWs—an important determinant of team work/cooperation. The following subsection explains the factors that were said to be responsible for limited independent and joint performance by one or the other group of FLW, thus affecting overall coordination amongst them in joint activities.

b. What affected independent and/or joint work performance hence work relationships of FLWs and what was suggested to correct the situation?

Table 5.1 presents various reasons reported by study participants for the affected state of independent and joint work at the frontline. The table also presents the frequency by each group of participants against each code within the theme.
1. **Age**: Mentioned as a reason affecting the AWWs' independent and supportive role performances, it was said that the advanced age of AWWs (since they were appointed by ICDS decades ago) against the newly appointed young ASHA Sahyoginis is one reason the AWWs do not work and leave all their work to the ASHA Sahyoginis. Such unofficial AWW to ASHA Sahyogini work shifting was said to not only result in AWW-ASHA Sahyogini conflicts but ANM-ASHA

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**Table 5.1: Factors affecting frontline performance hence work relationships and coordination: Frequency by respondent category**

<table>
<thead>
<tr>
<th>Issues</th>
<th>ANM</th>
<th>ASHA Sahyogini</th>
<th>AWW</th>
<th>Line Manager</th>
</tr>
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<td><strong>Personal</strong></td>
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<td>Few</td>
<td>Few</td>
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<tr>
<td>Behaviour&lt;sup&gt;xxiii&lt;/sup&gt;</td>
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<td>Some</td>
<td>Some</td>
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<tr>
<td>Recruitment procedures</td>
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<td>Training, knowledge and skills&lt;sup&gt;xxiv&lt;/sup&gt;</td>
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<td>Job accountability</td>
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<sup>xxiii</sup>Behavior here was defined as the act of one FLW in relation to the other coordinating FLW. Though the manifested behavior by one FLW towards the other could be due to multiple factors (including but not limited to those identified in this study), the "manifested behavior" itself was identified as a factor affecting inter-personal and inter-professional relationships among FLWs. Since examples of such manifested behavior existed in the majority cases, a separate code for the same was created.

<sup>xxiv</sup>The "education" and "knowledge" were two different codes with the former pertaining to FLWs' formal school education whereas the latter meant FLWs' knowledge about technical content and roles while recruited on the job. Since the focus of job related training is to enhance FLWs' technical and role related knowledge along with skills, all quotations from IDIs that suggested problem in any of these areas were jointly coded.
Sahyogini conflicts as well because the ASHA Sahyogini are unable to give committed time and support to their ANMs due to the extra workload.

"They are old and less educated hence leave all their work on ASHAs. Due to this, my ASHA does not give time to me and does not support me"...ANM, Non-tribal village

"They don’t work leave apart the support to us. They are old and less educated hence leave all the work to us rather than provide any support"...ASHA Sahyogini, Tribal village

"The AWWs have stopped any support in immunisation since ASHA Sahyoginis have joined. They are so old that they make ASHAs to even for the AWC related tasks"...Line manager

**Suggestion:** Fixing retirement age of all groups of FLWs and replacement of old non-functional AWWs were suggested to improve performance and hence coordination.

"There should be an age limit for total service or retirement age from job for AWWs as that exist for all other government jobs in the country. The old AWWs are unable to work harder"...Line Manager

2. **Health:** Mentioned as a reason affecting AWWs' independent and supportive role performance and ASHA Sahyoginis' supportive role performance, frequent illnesses due to the advanced age of AWWs was cited as a reason for their frequent absenteeism from work and task shifting to ASHA Sahyoginis. On the other hand, ASHA Sahyoginis' pregnancies and other maternal health issues in their reproductive years were cited as reasons for their temporary but long term absenteeism from work without adhoc arrangements put in place, thus their supportive role performance and overall coordination at the frontline.

"Now she is pregnant so doesn’t work. Other ASHAs also do not work during pregnancy but this ASHA has left everything which is creating problems for me"...ANM, Non-tribal village

"She usually remains sick then how will she work. Many have requested that she should be removed"...AWW, Non-tribal village.
"My AWW doesn’t come to the AWC and says that she is sick and hence leaves all her work also on me"...ASHA Sahyogini, Tribal village

**Suggestion:** Clear leave policy for all groups of FLWs with a clause on maternity leave and *ad hoc* arrangements in case of absence from work were suggested.

"The government must make some interim arrangements for field support for us while the ASHA is pregnant and is on maternity leave"...AWW, Non-tribal village

3. **Education:** Lesser or more than required education of ASHA Sahyoginis whereas less than required education of AWWs was mentioned as a reason affecting their independent and supportive role performance. The ASHA Sahyoginis with more than required education were said to be less interested in field based work that fetched them limited financial incentives. It was said that they compared themselves with AWWs who were less educated than them but had institution based work and were getting better incentives. Similarly, less than required education amongst AWWs resulted in inadequate skills in AWWs to complete their own tasks and support co-workers, which thus led to unofficial role shift by AWWs to ASHA Sahyoginis. Together, such differences were said to be responsible for ASHA Sahyogini-AWW conflicts, their absenteeism from work and non-cooperation.

"The ASHA doesn’t want to work. She is educated until 12th standard and has also filled in the form for the ANMs’ post. So ASHA thinks that she will be selected for ANM and would leave the work of ASHA. This is the main reason for her not working"....ANM, Tribal village

"One more reason for conflict is that AWWs are less educated than ASHAs so at times ASHAs do not help the AWWs. ASHA thinks that she is more educated and the AWW can’t work, still AWW threatens them. This leads to conflicts. ASHA
doesn’t listen to AWW as she thinks she is more educated and knowledgeable."...AWW, Non-tribal village

"She (AWW) is uneducated. She leaves all her registers for me to fill. She also does not help me in maintaining immunisation register"...ASHA Sahyogini, Non-tribal village

"The AWWs can't support ASHAs as they are less educated than ASHAs and hence rely on ASHAs for even their own work"....Line manager

Suggestion: Strict adherence of government guideline on educational requirements during the selecting process of ASHA Sahyoginis and AWWs; institutional support for continuing education to those currently posted but less educated; and a written agreement for minimum years of service for FLWs were suggested.

"They must avoid selection of highly educated ASHAs. Those who are needy and interested must get preference"....ANM, Tribal village

4. Family background: Mentioned as a reason affecting ASHA Sahyoginis' supportive performance, the family structure and norms, social, economic and political status of the family to which the ASHA Sahyogini belongs were said to be interfering in her supportive performance. The family structure where a woman (in this case ASHA Sahyogini) has to obey her in-laws and spouse along with social/family norm that prescribes greater importance by a woman to domestic rather than professional work engagement were said to be affecting ASHA Sahyoginis' work performance. The spouse and in-laws of ASHA Sahyogini that came from better economic status and had political connections, were said to be reluctant to ASHA Sahyoginis' field based work that fetched her less social status and financial incentives than the other groups of FLWs. In one village, an ASHA Sahyogini also complained about religion/caste based biases by her AWWs
towards her. Together, such family background related factors and biases affected ASHA Sahyoginis' motivation and supportive performance.

"Even the ASHAs' family member stops the ASHA from going to work every day saying that there is no need to meet the villagers everyday as all the villagers are aware about their role and also there is more work to be completed at home rather than in field".....ANM, Tribal village

"If some AWW comes from Jain (Religion) or Rajput casts (classified as other backward castes amongst Hindus) and the ASHA belongs to scheduled caste, then she is not allowed to drink water from the same pot. AWW doesn’t even allow ASHA to use the glass from AWC".....ASHA Sahyogini, Non-tribal village

"Her husband says that she doesn’t need this type of job. He says that they can earn Rs 500 just like that. She is afraid of her husband hence doesn’t work"...AWW, Non-tribal village.

"They give the reason that I have a young child at home or I have work at home and will not attend the meetings".....Line manager

**Suggestion:** Strict adherence of government guideline on priority to ASHA Sahyoginis from economically deprived sections in selection and excluding candidates that are family members or relatives of any political leader were suggested.

"Government should avoid selected ASHAs that are family members of Panchayat members. Rather those that are poor or widow must be given a chance".....Line Manager

**5. Residence:** Mentioned as a reason affecting ASHA Sahyoginis' supportive performance to ANMs and AWWs, it was said that the ASHA Sahyoginis who had residence within the allotted work village against the ANMs and AWWs who are usually not from the same village feel more powerful and fearless due to the support of the local people and leaders over their ANMs and AWWs. Such local affiliation of ASHA Sahyoginis was said to dilute the authority of ANMs and AWWs over them thus leading to ASHA Sahyoginis' non-compliance, non-performance and
absenteeism from work. On the contrary, in one village, participants complained that since their ASHA Sahyogini was from another village, she lacked interest, knowledge and rapport with the community was absent and wasted time commuting. Hence both residence and non-residence appeared to affect ASHA Sahyoginis' coordination with their ANMs and AWWs.

"Since the ASHAs are local they feel more powerful and at times they do not listen to the ANMs"...ANM, Tribal village

"This ASHA is not from our village and not even from our district. She is not staying in this village hence she does not have interest in working for this village"...AWW, Non-tribal village

"Eighty per cent of ASHA are not local but commute every day. How do you expect support from them"....Line manager

**Suggestion:** Selecting ANMs, AWWs and ASHA Sahyoginis from the same geographical area was emphasised.

"They must only appoint the three workers that reside in the same Panchayat or nearby locations"...ANM, Non-tribal village

6. **Behaviour:** Mentioned as a reason affecting joint performance by all the three groups of FLWs, the ANMs and AWWs talked about the non-compliance and disrespectful nature of their ASHA Sahyoginis towards them whereas the ASHA Sahyoginis complained about abusive, inconsiderate, unfriendly and oppressive behaviour of ANMs and AWWs towards ASHA Sahyoginis. Few ASHA Sahyoginis also said that their ANMs and AWWs ask them for a share in their incentives and force them to sign on false financial bills. Such behaviour towards each other was said to affect their work relationship hence lead to unwillingness to support each other in future.
"None of the AWW behave properly with any ASHA and nor help any ASHA. On top of it, AWW tells people that we don’t work"...ASHA Sahyogini, Tribal village

"This ASHA does not obey me and refuses to do anything I say. Her behaviour is not good hence I have stopped talking to her"...ANM, Non-tribal village

"She (ASHA Sahyogini) doesn’t behave well. She is unpleasant and doesn’t talk to any of us hence our joint work is affected"...AWW, Non-tribal village

Suggestions: The role of supervisors in grievance redressal, inculcating values of mutual respect and team work in FLWs was suggested.

"The supervisors must make them (frontline workers) understand that they should work in team. They must tell these workers that they should first start respecting each other to be able to work together....AWW, Tribal village

7. Recruitment procedures: Mentioned as a reason affecting ASHA Sahyoginis' supportive role performance, it was said that non-consultative and hasty selection of ASHA Sahyoginis by the local Panchayat(council) leaders at the start of NRHM led to the appointment of politically (usually related to Panchayat leaders - relative/friend/family member/supporter) and economically well off and sometimes even non-resident candidates as ASHA Sahyoginis. Such Panchayat selected ASHA Sahyoginis were said to be disrespectful and did not work as a team with their government appointed ANMs and AWWs as the power of their selection and retrenchment rests with the Panchayat. The government departments only have a minor, if any role in their recruitment and retrenchment despite contributing to their training, supervision and incentives. This was said to affect their work relationship and hence joint work.

"Her relatives are politicians in the village and she is appointed through political influence. Probably thats” in her mind due to which she doesn't work"...ANM, Non-tribal village
"ASHA is not from the same village and has been appointed by Sarpanch (Panchayat head) based on his own judgment. ASHAs' husband is working with Sarpanch which is why she doesn’t work. ASHA would have worked more if she was not known to Sarpanch"...AWW, Tribal village

"ASHAs who need the job they work and many who have come through politicians don’t work. There are many cases and this happens in the village usually. The ANMs and AWWs face a lot of problem due to this. They cannot compel her to work as she creates pressure. We also can't say anything to them"...Line manager

**Suggestion:** Selection of truly deserving ASHA Sahyoginis either by one or both departments jointly rather than only by Panchayats was proposed.

"According to me these people- AWW, ANM, LS and LHV and Panchayat from the village together must select ASHA because ultimately they have to work with ASHAs. This small selection committee of 4-5 people can decide mutually"...ANM, Non-tribal village.

8. **Departmental placement:** Mentioned as a reason affecting ASHA Sahyoginis' supportive performance, it was said that as ASHA Sahyoginis were placed between rather than within any one department, both the ICDS (AWWs and supervisors) and Health (ANMs and LHVs) departments pull ASHA Sahyoginis for work in their own target areas and do not approve of their support to the other which causes conflict between FLWs. The ICDS staff said that ASHA Sahyoginis' engage with ANMs more than AWW due to: 1) greed of earning more incentives; 2) hope of permanent employment within the Health department; and 3) ANMs' refusal to let ASHA Sahyoginis support AWWs. The Health department staff said that ASHA Sahyoginis' engage with ICDS more than ANMs due to: 1) a fixed monthly and not performance based honorarium by ICDS; 2) daily attendance marked by ICDS rather than the ANMs; and 3) AWWs' refusal to allow ASHA Sahyoginis to support the ANMs. Such "sandwiched" placement of ASHA Sahyoginis was also said to be leading to duplication of work, reporting and supervision thus resulting in waste of time and
fragmentation than coordination. Together, the above issues were said to be leading
to confusion, conflicts, lack of control by either departments on ASHA Sahyoginis,
poor work performance of ASHA Sahyoginis and hence poor work relationships
between co-workers.

"ASHA is loaded with too much of work pertaining to ICDS and its meetings and
thus is unable to assist ANM in their work... The ICDS does not like ASHA to work
with the Health department as ICDS pays the ASHA more"....ANM, Tribal
village

"There is conflict between ANM and AWW related to our working and our work
gets disturbed as sometimes we are supposed to work when AWW doesn't come or
do some of AWWs' work. We are unable to work properly due to this inter-departmental pull. This also affects our motivation to work as we get irritated and
then we feel like leaving the work"....ASHA Sahyogini, Non-tribal village.

"The ASHAs are at times unable to work for the AWWs due to the health related
tasks with ANMs due to which the AWWs complain"....AWW, Non-tribal village

"ASHA should be placed in one department rather than two otherwise there is no
control over her. She fools both AWW and ANM by saying that she is working
with the other though actually she doesn't work at all and only stays home. Her
alignment with one department will increase control and monitoring over
her"....Line manager

**Suggestion:** Two types of responses emerged in this area: 1) the current
"sandwiched" placement of ASHA Sahyoginis between ICDS-Health departments
can work provided their recruitment, work planning, attendance monitoring,
incentives and monthly supervision is undertaken jointly by both departments; and 2)
the current "sandwiched" placement of ASHA Sahyoginis will not work which is why
ASHA Sahyoginis must be placed only under one (preferably Health) department.

"ASHA should be either put in one department or align all her functions like
attendance, supervision, incentive properly between both departments. I suggest
she should be put under health department as she hardly works for ICDS....ANM,
Tribal village

**9. Training, knowledge and skills:** Mentioned as a reason affecting FLWs'
independent and supportive work performance, the sequence, time duration, coverage
and content of FLWs' training were said to impact FLWs', especially ASHA Sahyogini and AWWs' knowledge and skills. The post rather than pre-recruitment training of ASHA Sahyoginis were said to be meaningless as ASHA Sahyoginis, once recruited showed limited interest in further learning. The training content was also said to be inadequate and inappropriate in terms of lack of orientation to FLWs about their own independent and supportive roles along with similar roles of other FLW groups, imparting limited knowledge on child immunisation, family planning, counselling and promoting the "activist" over the incentive based role of ASHA Sahyoginis. The lack of joint training along with these inadequacies was said to be the reason for limited role clarity and expertise amongst FLWs thus leading to confusion, task shifting, unaccountability, incomplete tasks and hence conflict between FLWs.

"She lacks interest and knowledge in her work though she is trained. But still unable to perform"...ANM, Non-tribal village

"ASHAs lack proper training hence does not perform"....AWW, Non-tribal village

"The AWW doesn't know about the immunisation register and any of my work. In fact she lacks knowledge about her own work hence instead of support to me, she also leaves her work on me"....ASHA, Tribal village

"The difference is that earlier AWW used to think that she has to do the entire work alone but now both of them leave the work for each other. AWW thinks that ASHA will do it and ASHA thinks that AWW will do it. So this is creating more problem"....Line manager

**Suggestion:** Appropriate timing, participation and content of FLW training (especially ASHA Sahyoginis) were suggested. Short term (five to six months) pre rather than post recruitment course for ASHA Sahyoginis; joint training of the three groups of FLWs; periodic refresher training; and improvement in training content with emphasis on role clarity, counselling
skills, data management and sharing skills among FLWs along with an "activist role" rather than just an incentive based role of ASHA Sahyoginis were suggested.

"They must plan joint training of these three groups of workers so that these workers get to understand the true purpose of working together"...**Line Manager**

10. **Job accountability:** Mentioned as a reason affecting joint functioning of the three groups of FLWs, it was said that expecting "support" from ASHA Sahyoginis in the absence of any responsibility, monitoring or accountability to make her do so makes it difficult for an ANMs and AWWs to demand "support" or challenge "no support". In such cases, any support, if extended by ASHA Sahyogini was said to be only due to personal relationship and rapport between FLWs. Hence affected work relationships between FLWs along with the lack of monitoring and accountability of ASHA Sahyogini for providing support was said to be affecting the joint work between the three groups.

"If I ask some work from ASHA and she doesn’t do it then I have to do it anyway. We have to report and give the completed work in any case. So there has not been any change in our work since ASHA has joined us"...**ANM, Non-tribal village**

"There is no such clear order to say that ASHA will help us and where. It just depends on her wish. If she wants she can"...**AWW, Non-tribal village**

"AWWs cannot expect ASHAs to come and support in AWC positively because she is not directly under ICDS which is why ASHAs visit according to their own wish. She is expected to inform AWW about her visits which also she does not"...**Line manager**

**Suggestion:** Clear division of work, allotted time and deliverables amongst workers and establishing clarity on self and others' roles and responsibilities were suggested.

"Work must be clearly divided between each of us so that we consider our responsibility towards the work. Also, ownership towards the work increases thinking that the particular work is mine"...**ASHA, Non-tribal village**
11. **Work ethics:** Mentioned as a reason affecting ASHA Sahyoginis' joint working with their ANMs and AWWs, the ASHA Sahyoginis complained about corruption, greed, cheating and bribery by their ANMs and AWWs. Regarding ANMs, it was said that they bribe married couples to register sterilisation under ANM than ASHA Sahyoginis' name because if the case is registered under ANM, she gets the incentive and praises from the line managers rather than ASHA Sahyogini. It was also said that the ANMs charge money from the pregnant and lactating women for services that are usually free by the government. Regarding AWWs, it was said that they forged reports and financial bills of food supplements which they do not even distribute to eligible beneficiaries. Such unethical practices were said to not only affect beneficiaries" trust and respect for the FLWs but also ASHA Sahyoginis' trust and respect for their ANMs and AWWs leading to the affected state of mutual relationship.

"Sister (ANM) also take money from females who deliver. If they are unable to get ₹500 from these females, they bargain but take nothing less than ₹300?"...ASHA Sahyogini, Non-tribal village

**Suggestion:** Strict monitoring, grievance redressal and disciplinary action against reported cases were suggested. Inclusion of ASHA Sahyoginis along with AWWs in the food supplementation function to keep a check on corruption was also suggested.

"About the food we are given for pregnant women or adolescent girls by ICDS, the responsibility of it can also be given to the ASHAs along with AWW. This will make the process transparent"...ASHA Sahyogini, Tribal village

12. **Job security:** Mentioned as a reason affecting ASHA Sahyoginis' supportive role performance, it was said that lack of employee status within any department, unclear
career progression path and time-bound rather than long term execution of the NRHM instils job insecurity in ASHA Sahyoginis affecting their motivation and commitment to perform.

"They (ASHAs) say that since NRHM is a project until 2011 only, they will be removed after this project ends"...ANM, Non-tribal village

"ASHAs' job is not permanent but she is just doing it only because government is paying her money. We are allocated work till 2012 only. We can be removed tomorrow. We are uncertain about the future."...ASHA Sahyogini, Non-tribal village

"In the ICDS training, ASHAs were told that they will be made permanent if their work is good. Few ASHAs are just working in that hope but nothing happened to date. They are unaware about their fate in the system and governments' plans. The career path and promotions for AWWs and ANMs within their own departments are certain but not for ASHA hence they are de-motivated"...Line Manager

**Suggestion:** Clear career progression path for ASHA Sahyoginis was suggested.

*There should be a clear career path shown to ASHAs if they are working well. As the ANM can become LHV, ASHAs should also have a clear career path.* Line Manager.

**13. Work attendance and monitoring:** Mentioned as a reason affecting supportive role performance of ASHA Sahyogini, it was said that lack of strict maintenance and monitoring of ASHA Sahyoginis' daily attendance affected her participation in supportive tasks. Also, the authentication and approval of her false attendance records by Panchayats were responsible for her absenteeism, non-performance and limited support to co-workers. On the contrary, the ASHA Sahyoginis said that marking attendance at the AWC before starting their daily work was not possible all the time as sometimes they leave for field work directly from their homes. They said that in such cases, AWWs distrust them and mark them absent from work thus causing further conflict and lack of cooperation between the two.
"The attendance of ASHA is verified by ANM though ANM just meets her once in a week and on the other hand AWW meets her every day. Even the AWW do not have the tour plan of ASHA but still they sign their attendance"...ANM, Tribal village

"ASHA doesn’t come for many days, doesn’t sign and works from her home according to her convenience"...AWW, Tribal village

"AWWs quarrel with ASHAs and some don’t even allow ASHAs to sign their attendance at AWC. AWW cannot refuse ASHA to sign but since they do it, it leads to fights".....ASHA Sahyogini, Tribal village

"ASHAs don’t come to the AWC for days and then the AWW complains to us. We tell them not to mark ASHAs’ attendance. This is when the conflict between the two workers start and then ASHAs stop sharing birth and death village information with AWW and retains all registers with herself"...Line manager

Suggestions: Maintenance of daily attendance of ASHA Sahyoginis at AWC, authorization of ASHA Sahyoginis attendance by AWW and ANM, joint review of ASHA Sahyoginis attendance by ICDS and health supervisors, attendance and performance linked incentives of ASHA Sahyoginis and surprise field visits by AWWs to monitor ASHA Sahyoginis' daily movement diary were suggested.

"If ASHA get the signatures of people she visited then there will be no problems. As AWW will have the survey register where Asha has got the signature that shows when she had visited where and that shows the dates too, so who ever comes for survey can see that"...AWW, Non-tribal village

14. Remuneration/reward: Mentioned as a reason affecting ASHA Sahyoginis' support to ANMs and AWWs, the ASHA Sahyoginis' incentives from both departments were said to be inadequate, irregular, delayed and non-consolidated. Lack of clarity on "who" and "how much" will be paid along with no incentives for some tasks (e.g. patient referrals, VHSC meetings, data management in general and under the Indira Gandhi Matriva Sahyog Yojna.xxv) for ASHA Sahyoginis were said to affect her

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xxv Indira Gandhi Matriva Sahyog Yojna (IGMSY) is a newly launched government scheme focusing on maternal and child health. The scheme is attached to ICDS and expects and incentivises the AWWs and
motivation and work performance. On the other hand, few ANMs, AWWs and line managers complained about ASHA Sahyoginis' participation only in incentivized tasks than others and criticised ICDSs' fixed monthly honorarium model of payment for ASHA Sahyoginis saying that since it was not linked to her performance, she considered it to be a right without performing any duties.

"ASHAs are paid very little by Health department so they are unwilling to work and always give excuses. ANM feels frustrated as she is unable to get the work done from the ASHA because of the incentives"...ANM, Tribal village

"Since the incentives for ASHAs are so little, they are not interested to work"...AWW, Tribal village

"The payment of Rs. 1000 given to the ASHA is very little which was Rs 500 earlier and creates problems whereas AWW gets Rs. 3000 per month. We do all the work of the AWW and field. There is no pleasure working for such little money"...ASHA Sahyogini, Non-tribal village

"The payout is less and ASHAs say that Health department is taking a lot of work from them and just paying them Rs.150. They also remark that they are just getting paid Rs.500 which is too little for them and they are not able to work for this amount"...Line manager

**Suggestion:** Increased, performance based and regularly paid incentives for ASHA Sahyoginis at the village rather than the PHC level, to be given jointly by both departments was proposed. Additional incentives for visiting tough terrain, case referral, data management and information sharing were proposed. A few participants suggested full time salary based employment for ASHA Sahyoginis. Promotions, clear career path and awards for good performance were also proposed as non-financial incentives.

"Our payment should be increased from both the sides (ICDS and health department) as we are working for both the department. Instead of paying AWC helpers for collecting maternal and child health data and improving health and ICDS service coverage.
15. **Sector supervision:** Limited coordination between sector supervisors of both- ICDS and Health departments was said to affect frontline coordination. Such lack of supervisory coordination was said to be due to challenges like: 1) non-coinciding geographical boundaries of both departments’ supervisors; 2) no common headquarter or office for both departments; 3) absence of joint MCHN day planning, field visits, monthly reports and meetings between them; and 4) vacancies and absenteeism of supervisors from both departments. At the frontline, this led to multiple supervisors, reports and meetings for ASHA Sahayoginis, multiple and uncoordinated (at times contradictory) instructions by multiple supervisors to FLWs and limited opportunities for the three groups of FLWs to jointly meet their supervisors and redress grievances. Such ambiguity at the supervisory level caused confusion, conflicts, poor work performance and work relationship between FLWs.

The poor monitoring and supervision of AWWs' independent as well as supportive work by ICDS supervisors was also reported. The biased attitude of supervisors towards FLWs from their own department than others and pressure from them to report each achievement (especially sterilisation cases for family planning) in individual rather than joint names, despite these being joint tasks were said to cause jealousy, competition and conflicts rather than coordination amongst FLWs.

"There is no proper coordination between the supervisors and their instructions to the ASHAs and this results in leaving the task undone. If one supervisor says something and the other says something else, it also creates problems between ANM and ASHA"....ANM, Tribal village
"Seniors listen to ANM more. They say that ASHA might not have visited the village, she must not have tried to convince cases that is why she hasn’t been able to achieve them, while ANM must have done it"...ASHA Sahyogini, Non-tribal village

"Since the ASHA is a known to the Wardpanch (Part of Panchayat), the supervisor doesn’t say anything to her. The LHV also defends ASHA saying AWW is at fault"...AWW, Tribal village

"The monthly reporting cycle of Health department is from 1st till 30th and that of ICDS is from 21st till 20th. If they are changed to coincide, joint meetings of LHV and LS with ASHAs would be possible. Moreover, multiple meetings at various levels and multiple reports by LHV and LS affect their joint participation in ASHA and ANM joint meetings which is why AWW-ASHA-ANM tussles remain unaddressed"... Line manager

Suggestion: To improve supervisors' coordination, aligning ICDS-Health department supervisors' field area and work station along with filling vacancies and monitoring their coordination efforts by block and district officials were suggested. Further, joint monthly meetings, work planning, attendance and work monitoring of ASHA Sahyoginis and joint grievance redressal were suggested to improve frontline coordination.

"Both the department supervisors should sit together and have a joint meeting. Our LHV will attend their meeting and their LS will attend our meeting so that there is no disparity.".....Line Manager

16. Leadership: Raised by the line managers, lack of ICDS-Health department coordination at block and district levels was said to be setting a poor example of the importance placed by government on inter-departmental coordination for FLWs. While the majority of line managers praised the state government for passing statutory orders for joint field visits, monthly meetings and reporting by both departments, the implementation of these at all levels was criticised. Issues like limited vehicle support by government for joint field visits, absenteeism of officials in joint inter-departmental meetings due to work overload within their own
department, no serious monitoring of inter-departmental coordination efforts and lack of respect for each others' contribution to the common goals were said to be affecting the implementation of government orders and ultimately the FLW coordination.

"Coordination is good in other blocks but not Mavli as we have no joint meeting at the district level and it reflects on us. These days if there is a special programme then the two departments are called jointly otherwise the story is different on regular days. Officials at higher levels do not coordinate which reflects downwards” ....Line manager

**Suggestion:** Common administrative building as work place for both departments' officials to enable them to work jointly; issuing reporting formats to record monthly coordination activities between the two departments ;and regular reviews of these by each consecutively higher level official were proposed.

"The joint departmental meetings must happen quarterly if not monthly. If we (ICDS managers) are also facing problem and if the ANM is not doing immunization then we can also complain CMO to get it fixed...Line manager

17. **Infrastructure:** Mentioned as a reason affecting FLWs' independent and supportive performance, the unacceptable conditions of ICDS and Health institutions (AWC, Sub-centres, hospitals etc.); and apathetic staff at Health institutions were said be affecting service (immunisation, delivery etc.) uptake by beneficiaries motivated by ASHA Sahyoginis. The shortage of vaccines for immunisation and lack of medical kit and registers (annual survey, immunisation, daily diary, village health profiles registers) were also said to affect FLWs' work performance hence work relationships and coordination.

"ASHAs have just one register to fill and they fill everything here and there. Hence this register is of no use. They should keep complete information with all indicators of immunisation in one register and someone should check this register”...ANM, Tribal village

"There is no AWC here. We are running it in a school which is two Kms away. Parents don’t come and get their children for immunisation here as it's still under
construction. It's far and it's not in good shape and worse when it rains. No one cares but they just scold us”...ASHA Sahyogini, Non-tribal village

"As there is only one immunisation register so there is confusion about its maintenance as neither ASHA completes it thinking that AWW will complete and AWW thinks that ASHA will complete. Due to this, many ASHAs maintain register but do not share the information with the other AWWs"...AWW, Tribal village

"There are no daily diaries for ASHAs. If it comes printed by the department then at least they will be bound to fill their daily field visits in it"...Line manager

**Suggestion:** Separate immunisation registers to AWWs and ASHA Sahyoginis or clear authorisation of responsibility to maintain the joint AWC immunisation register to either AWWs or ASHA Sahyoginis; along with timely supply of reformatted (with details of date, date, beneficiary visited, reason of visiting and services given, signature of the beneficiary) ASHA Sahyoginis daily diaries, annual survey registers and medical kits were suggested to enable ASHA Sahyoginis' work and frontline coordination. No suggestions were given about improvement of the physical infrastructure.

"We are only able to give them paracetamol and ORS and that too from ICDS which is meant for children. If PHC provides us all the medicines then we can provide the medicines to people....ASHA Sahyogini, Non-tribal village

**18. Work environment:** Mentioned as a reason affecting ASHA Sahyoginis' supportive role performance, this describes the challenges in terms of geographical area and community people amongst whom the ASHA Sahyoginis are expected to work. It was said that distant, hilly, scattered, highly populated, inaccessible and insecure geographical areas limit the community outreach of ASHA Sahyoginis as she is a female worker and thus her support to her co-workers (ANMs and AWWs). Additionally, illiteracy, myths and misconceptions, religious and cultural beliefs, fear and distrust on the part of the community people about the system and FLWs were
said to limit ASHA Sahyoginis' community mobilisation efforts and service outreach and consequently, relations with the ANMs and AWWs.

"Because ASHA has to move so much in the field and then she has her house chores too. They say that they have to move so much and sometimes one house is at one corner and other at another corner. The houses are in the fields- 2-3 kms apart. So for Rs 150 they get for immunisation it is there in their minds that they are getting less money"...ANM, Non tribal village

"Here there are also people who do not go for vaccination. I go many times and they say that they fear their Gods. I force but still they do not come for it so what should I do. Then the sister shouts at me"...ASHA Sahyogini, Non-tribal village.

"The area is hilly, scattered and dangerous for woman to work alone. Hence she avoids making home visits"...AWW, Tribal village

"I do receive complaint. These ASHAs refuse support to ANMs in surveys as the villages are far off"...Line manager

**Suggestion:** Joint and regular counselling by the three groups of FLWs to the community, joint field visits by FLWs to ensure each others' security and additional incentives to those working in tough terrains were suggested.

"If we (ASHA-ANM) counsel the females together then they women will get their children for immunisation. People believe more on the ANM, ASHA might not be aware whether immunization has been done or not so if ANM can explain them better and call them”... ASHA Sahyogini, Non-tribal village

5.5 **Summary**

The results showed that the experience/observation of all categories of participants on frontline coordination in their area was not good. This overall perception of participants about FLWs' "joint working" or coordination was found to be influenced by independent as well as the supportive role performance by one or more groups of FLWs, which together determined their mutual relationship.
The findings showed that though the majority participants complained about the limited independent and supportive role performance by AWWs and supportive role performance by ASHA Sahyoginis, only a few said so about the ANMs. The reasons that were said to be affecting the independent and/or supportive role performance of one or more groups of FLWs were themed under - personal, professional, organisational and geo-socio-cultural.

Table 5.2 presents the summary of all recommendations made by study participants. The analysis of these showed that the participants felt the need for corrections in the human resource management, infrastructure and better coordination at higher programme levels to improve the frontline coordination.
<table>
<thead>
<tr>
<th>Table 5.2: Summary of the suggestions proposed by participants to improve frontline coordination</th>
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<tr>
<td><strong>Recruitment</strong></td>
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<tr>
<td>1. Joint ICDS-Health-PRI selection of ASHA Sahyogini</td>
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<tr>
<td>2. Strict adherence to ASHA Sahyogini selection government norms</td>
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<tr>
<td>3. Attempts to select FLWs of all the three groups from same assigned work area/village</td>
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<td>4. Identification and exclusion of political aligned candidates</td>
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<td>5. Service bond with minimum years of service for FLWs</td>
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<tr>
<td><strong>Job Description</strong></td>
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<tr>
<td>1. Regular joint counselling by the three groups of FLWs to beneficiaries and joint field visits by them</td>
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<tr>
<td>2. Include ASHA Sahyoginis in food supplementation programme of ICDS</td>
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<tr>
<td>3. Clear career progression path for ASHA Sahyoginis</td>
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<tr>
<td>4. Daily ASHAsahyogini attendance monitoring and surprise field visits by AWW</td>
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<tr>
<td>5. Role clarity between AWW and ASHA Sahyogini on filling immunisation registers</td>
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<tr>
<td><strong>Job Aid</strong></td>
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<tr>
<td>1. Regular supply of child immunisation, annual survey, daily dairies, medical kits for ASHA Sahyogini</td>
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<tr>
<td>2. Regular supply of vaccines and medical logistics for ANMs and food supplements for AWWs</td>
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<tr>
<td><strong>Training and capacity building</strong></td>
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<tr>
<td>1. Improve training content on technical themes and FLWs' roles</td>
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<tr>
<td>2. Pre rather than Post recruitment training of ASHA Sahyogini</td>
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<tr>
<td>3. Joint and refresher training of FLWs with emphasis on improving technical knowledge, role clarity and &quot;health activist&quot; instead of only an incentive based role for ASHA Sahyoginis</td>
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<tr>
<td>4. Institutional support for currently employed but less educated FLWs</td>
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<tr>
<td><strong>Placement</strong></td>
</tr>
<tr>
<td>1. ASHA Sahyoginis current &quot;sandwiched&quot; placement only with joint work planning, supervision, reporting and incentives by both departments Vs.</td>
</tr>
<tr>
<td>1. Placement of ASHA Sahyogini in one department (preferably Health) than both.</td>
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<tr>
<td><strong>Remuneration/ Rewards</strong></td>
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<tr>
<td>1. Increased, timely and jointly paid incentives by both departments</td>
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<tr>
<td>2. Attendance and performance linked incentives to ASHA Sahyoginis</td>
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<tr>
<td>3. Additional incentives to ASHA Sahyoginis for working in tough terrain, for case referrals and data management</td>
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<td>4. Non-financial incentives in the form of promotions and awards</td>
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<tr>
<td><strong>Sector Supervision</strong></td>
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<tr>
<td>1. Alignment of ICDS-Health sector supervisors' geographical work area boundaries and work stations with filling vacancies</td>
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<tr>
<td>2. Joint ASHA Sahyoginis' work planning, attendance and work monitoring and supervision through joint monthly meetings by both supervisors</td>
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<tr>
<td>3. Joint FLWs' meetings with both supervisors promoting discussion, capacity building and grievance redressal</td>
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<tr>
<td>4. Clear division of work, time, deliverables and disciplinary action for FLWs</td>
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<tr>
<td><strong>Leadership</strong></td>
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<tr>
<td>1. Station ICDS-Health block, district and state officials in a common building</td>
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<tr>
<td>2. Serious monitoring of joint field visits, meetings and reports by each consecutive higher level</td>
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<tr>
<td><strong>Others</strong></td>
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<tr>
<td>1. Policy on retirement age for all groups of FLWs</td>
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<tr>
<td>2. Policy on &quot;Leave from work&quot; with special mention of maternity leaves and adhoc replacements for all groups of FLWs</td>
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5.6 Discussion

The analysis of the experience/observations, reasons for such experience/observations and suggestions on frontline coordination helped understand some key characteristics of the existing state of frontline coordination in the study area.

The analysis showed that of the three groups of FLWs, the questions were mainly raised on the AWWs and ASHA Sahyoginis for affecting the frontline coordination. The predominance of ASHA Sahyogini related issues by the participants could also be due to the fact that the ASHA Sahyoginis are the centre of any coordination between ICDS-Health departments at the frontline. Also, the relationship between AWWs and ASHA Sahyoginis appeared more affected than that between ANMs and ASHA Sahyoginis.

Between AWW and ASHA Sahyogini, the non-performance of independent and supportive roles by AWWs and supportive roles by ASHA Sahyoginis appeared to have affected their mutual relationship. The reasons for the lack of performance of the majority independent functions by AWWs were said to be-age, health, education, training, knowledge, skills, work ethics, poor sector supervision and infrastructure whereas the reasons for affected supportive role performance by them included all the above as well as behaviour of co-workers, lack of support from co-workers and poor demonstration of coordination by line managers. Thus this non-performance of independent and supportive roles by AWWs due to multiple factors along with role
duplication and accountability of neither AWW nor ASHA Sahyogini in joint tasks could have resulted in unofficial task shifting by AWWs to ASHA Sahyoginis and hence strained behaviour and overall relationship of one with the other. Apart from these, there was evidence of comparisons made by both (AWW and ASHA Sahyogini) with each other on various parameters (e.g. education, residential location, nature of work, incentive, job security) that showed competition, jealousy and disrespect among them than coordinated approach to working together.

About ASHA Sahyoginis' poor support to both-ANMs and AWWs, her personal (health, education, family background, residence), professional and organisational (recruitment, placement, training, knowledge and skills, job accountability, attendance, job security, rewards, supervision, infrastructure, leadership) characteristics along with the geo-socio-cultural (work environment) factors were said to be responsible. The majority of these factors that resulted in ASHA Sahyoginis' lack of role performance could also have contributed to their behaviour with their co-workers, thus causing strained relationship among the FLWs. Apart from these, poor behaviour, work ethics and role performance by co-workers (ANMs and AWWs) also affected her coordination with them.

About ANMs, while poor work ethics and infrastructure were said to be affecting their performance of independent functions, the behaviour and poor work performance by co-workers (AWWs and ASHA Sahyoginis), training, infrastructure
and poor example of coordination set by supervisors, block and district officials were said to have affected their supportive role performance.

Thus, various factors such as poor behaviour, training/role clarity/knowledge, work performance (independent and supportive roles), example of coordination set by leaders and poor infrastructure and infrastructure were few common reasons said to be affecting supportive role performance by all groups of FLWs. Also, multiple reasons, including those mentioned above may affect work performance by any group of FLWs thus contributing to poor work relationships.

The existence of the state governments' orders on joint meetings, field visits and monthly reports by the officials of two departments at all levels (sector, block and district) showed existence of political intentions to promote ICDS-Health coordination. But the lack of any such measures in practice were identified (mainly by line managers) to show the lack of political will in the form of strict monitoring, supervision, financial and administrative support to help ensure their implementation.

On the existing model of frontline coordination in Rajasthan, the analysis showed that though the majority of participants stated that the placement of ASHA Sahyoginis between two departments was a challenge for frontline coordination, these participants when asked to suggest possible solutions suggested joint recruitment, job planning, supervision and rewards mechanisms to be implemented by both departments in the case of ASHA Sahyoginis to improve her coordination
with both. Such contradiction suggests that the majority of these participants were not against the current Rajasthan ASHA Sahyogini model in principle but their reported dissatisfaction was due to lack of the existence and implementation of such joint inter-departmental coordination at various levels that were affecting frontline coordination.

This interdepartmental process of frontline coordination was found to be affected not only by coordination challenges between the two departments but also intra-department challenges that affect individual FLWs' independent as well as supportive role performance. Issues including staff vacancies, added workload on limited staff, poor infrastructure and limited supervision of FLWs by supervisors from both departments were reported to be affecting frontlines' work performance and coordination.

The analysis of the reasons affecting frontline coordination showed that during the process of working together, the FLWs interact at three levels:

1. Horizontal interactions amongst them at personal and professional levels,
2. Horizontal interaction of these FLWs with their beneficiaries/community and work area and
3. Vertical interaction of these FLWs with the larger system (their own departments, other departments, officials, facilities and processes at sector, block and district levels).
Thus the complex interaction between the "departmental systems-frontline-community" characterise the existing state of frontline coordination. The results highlight various system and community level challenges that also affect frontline coordination. But there can also be a reverse interaction where limited frontline coordination in service delivery (Process) affects service uptake by the beneficiaries/community (Outcome). This relation is evident from the results discussed in previous two chapters. The limited frontline participation in child immunisation and counselling activities was seen to have contributed to the limited knowledge amongst mothers which could be one of the reasons for limited child immunisation coverage on MCHN days.
CHAPTER 6

SUMMARY, DISCUSSION AND CONCLUSIONS
The study was conducted to understand the coordination between the three groups of FLWs in Rajasthan. It explored three important dimensions of frontline coordination i.e. "participation", "work relationships" and "coordination associated outcomes". It also gathered the views of those involved on how frontline coordination could be improved.

6.1 Summary of findings

All the three groups of FLWs showed good participation in expected tasks in relation to "Polio Camps" and limited participation in routine immunisation (especially AWWs and ASHA Sahyoginis) and Vitamin A supplementation (especially data management tasks). There were also issues related to work relationships (the experience of working together) i.e. the majority were dissatisfied about frontline coordination (mainly due to ASHA Sahyoginis and AWWs). The study showed limited knowledge among infants' mothers on child immunisation and Vitamin A supplementation as well as limited child immunisation coverage on the coordinated service delivery day i.e. MCHN day.

The "limited joint participation in common activities" and "poor experience of joint working" typifies the "process" dimension of unsatisfactory coordination between the three groups of FLWs in the study area. The mother’s limited knowledge and poor child immunisation coverage exemplifies the "Coordination process linked outcomes". Both-the process (participation) and outcomes were found to be marginally better in tribal than non-tribal villages.
On exploring factors that influenced the "the frontline participation in PC compared to the other activities" and "joint work relationships", various personal, professional, organisational and geo-socio-cultural issues were identified. The FLW survey (Chapter 3) identified some personal factors i.e. better educational status of FLWs, residential proximity of ANMs to the work villages and less FLWs (ASHA Sahyoginis) related to the local politicians as influencing FLWs' better participation in joint activities in tribal than non-tribal areas. The qualitative study (chapter 5) confirmed the last two as factors affecting frontline coordination but did not support the higher education finding as it showed that even better educated ASHA Sahyoginis do not work in a co-ordinated manner with their co-workers. In addition, the qualitative study identified age of AWWs, personal health of AWWs and ASHA Sahyoginis as other personal factors influencing both working on their independent tasks and tasks which required support from each other. On the contrary, Chapter 3 showed that age in case of AWWs appears less likely to be a factor that influenced participation in joint activities.

The importance of training (especially joint) and incentives/remunerations/rewards to all the FLWs were two other factors found in Chapter 3 and validated by the qualitative study (especially in relation to the ASHA Sahyoginis) as influencing FLWs' team work and collaboration. In addition, issues related to human resources (i.e. recruitment, placement, job accountability, knowledge and skills, work ethic, day-to-day attendance and job security) especially in relation to the ASHA
Sahyoginis and/or AWWs were also identified as other professional factors affecting FLWs' work performance.

The findings in Chapter 3 also highlighted the importance of political will to drive the institutional commitment/leadership to ensure funds, infrastructure, monitoring and supervision for better frontline coordination. The qualitative study also emphasised the limited political will seen in the form of limited coordination (in terms of planning, monitoring, and supervision) between ICDS and health officials at sector, block and district levels that affected frontline coordination.

The findings of chapters 3 and 4 suggested that "limited frontline participation in joint activities such as counselling" could be one of the reasons for "limited knowledge amongst infants' mothers on immunisation and Vitamin A supplementation" resulting in "limited immunisation coverage". The qualitative study showed that entrenched cultural and religious beliefs in the community also make FLWs' task of promoting immunisation and Vitamin A coverage difficult and affects FLWs' motivation. In addition, the qualitative study also showed geographical challenges (distant, hilly, scattered, highly populated, inaccessible and insecure geographical areas of work) affecting work performance by ASHA Sahyoginis that impacted on their work relationships with other co-workers (ANMs and AWWs).
The qualitative study suggested some changes in relation to human resource management (job description, recruitment, placement, job aids, training, knowledge, skills, job security and reward systems for the FLWs, especially the ASHA Sahyogini as the link worker between ANM and AWW) to improve frontline coordination. Further, measures such as structural and functional alignment between ICDS and Health department (RCH/NRHM) line managers at all levels with better supervision of coordination at each level were also suggested to promote better frontline coordination.

6.2 Discussion

The study showed that a range of stakeholders contributed to the frontline workers' coordination. The frontline coordination is not only affected by the interactions between the FLWs but also by their interaction with multiple stakeholders that operate within the larger organisation, departments and social system in which the three groups of FLWs operate. These stakeholders include FLWs' line managers, Panchayati Raj Institutions and programme beneficiaries. Examples include the lack of coordination between the supervisors and line managers of ICDS and health department in joint planning, monitoring and supervision; interference by PRIs in ASHA Sahyoginis' placements and limited knowledge about socio-cultural barriers that affected service uptake by programme beneficiaries.

The study identified a range of factors that may could contribute to the ineffective frontline coordination (Fig. 6.1). It showed that besides inter-personal factors
professional, organisational, geo-socio-cultural and national and political ' factors may contribute to ineffective frontline coordination. These factors do not operate in isolation but in an integrated dynamic system in which the three groups of FLWs operate. It is the limitations and challenges posed by this dynamic system that affect FLWs' work performance, relationships and coordination.
The study shows that though personal factors may influence frontline coordination, the range of professional and organisational factors and the lessons from the PCs suggest greater influence of the latter in determining frontline coordination. This premise is strengthened by the better co-ordination of the three groups of FLWs in PCs than RCI and Vitamin A supplementation despite the same FLWs facing the same personal and geo-socio-cultural challenges in all the four activities.

The eradication of polio is the international, national and state priority. This could be the reason that PCs in Rajasthan get greater political interest than any other programme. Such political focus could be the reason for repeated joint training and financial incentives to all groups of FLWs for their participation in PCs unlike RCI and Vitamin A supplementation programmes. This also results in better infrastructure (timely and adequate vaccines, funds, registers etc.), monitoring, review and supervision in PCs compared to the other programmes. Such measures as a result of political will i.e. infrastructure, joint training, participation incentives and monitoring and supervision could have led to better frontline coordination in PCs compared to the other three activities. It also illustrates that disproportionate political bias towards a cause can divert resources which in turn motivates FLWs to overcome their personal issues and geo-socio-cultural barriers and co-ordinate effectively.

It can also be argued that as the PCs are organised once or twice annually based on the case load unlike RCI and RVA that are routine activities organised monthly,
getting government and stakeholders interest for a short event like a PCs is easier than for routine services. But this argument does not hold true in case of Vitamin A supplementation where limited frontline participation was seen in both-camp and routine events. The existing literature shows nutrition as a missing agenda in the political discourse in India\textsuperscript{282, 283, 284}. This further substantiates the argument that the political will can determine systems' preparedness and stakeholders' participation in any activity.

In this study, the issues with Rajasthan's' frontline coordination was related more to operational than design issues. The non-compliance of two joint strategies under this model i.e. ASHA Sahyoginis' integration through joint recruitment, monitoring, attendance maintenance, supervision, reporting and incentives between the two departments and joint mechanisms for planning, monitoring and supervision by line managers were found to have affected the frontline coordination model in Rajasthan. This also means that the compliance of these two joint strategies have the potential to improve frontline coordination in Rajasthan. If so, the next question is -what limits these managers from complying with the state directives? The study provides some answers-

- Unaligned ICDS-Health department geographical and population coverage boundaries limits the joint planning, monitoring, supervision and reporting of FLWs
- Limited infrastructure support to line managers to conduct joint field visits
• Lack of standard indicators, monitoring formats and monitoring joint meetings, field visits and reports by senior officials

• Inherent departmental problems like unfilled vacancies that increase department related workload affecting inter-departmental coordination

• Lack of cohesive working between departments where each department expects the other to comply with its own work-plans and timelines rather than work together.

Lack of clarity on areas of coordination could be another reason for limited coordination at sector, block and district levels (though not identified in the study) among the ICDS and Health departments\textsuperscript{285, 286, 287}.

The study showed that both-inter and intra-departmental issues contribute to the ineffective frontline coordination. The inter-departmental challenges that affect frontline coordination are:

• Related to the ASHA Sahyoginis- recruitment, placement, job description, training, knowledge and skills, attendance, incentives and job security

• At sector/block/district levels- unaligned boundaries, lack of joint supervision, joint meetings and field visits by officials and impact on FLWs' morale and commitment to the joint working model.

The intra-departmental challenges within the ICDS department were:
The intra-departmental challenges within the Health department were

- In relation to the ANMs—limited frequency of village visits by ANMs and less time spent by ANMs on MCHN days, inappropriate attitude towards ASHA Sahyoginis,

- Various infrastructure and human resource issues within the healthcare institutions.

The study explored the interplay between the "process" i.e. FLWs' coordination and the "associated outcomes" i.e. knowledge and service uptake by the community. The surveys and field observations showed that limited frontline participation in activities like counselling may have influenced the mother’s lack of knowledge about immunisation and nutrition which in turn had an impact on the service utilisation in the community. The qualitative study showed that the lack of knowledge and reluctance to seek services in the community also influences the motivation, work performance and hence coordination among the FLWs. This circle of frontline coordination and service uptake by the community is multi-
factorial. The latter is not only affected by the limited, poor quality and untimely services offered by the FLWs or ICDS/Health department but also by community's educational status, economic status and socio-cultural challenges such as the limited decision making role of women. Hence though better FLWs' coordination and appropriate changes in the way the ICDS and Health department work collaboratively will contribute to the improved utilisation and service coverage, improvement in the educational and socio-economic profile of the community, specifically the empowerment of women is important.

The study also shows that recruiting the right workforce is an important requirement for good frontline coordination. The FLW survey showed that 34 percent of the ASHA Sahyoginis were related to local political leaders and this was triangulated by the qualitative study results where the participants identified the politically biased selection of ASHA Sahyoginis as a factor affecting frontline coordination. Such a recruitment system is likely to recruit politically aligned, and possibly non-eligible ASHA Sahyoginis.

However, even the participation of ANMs and AWWs with PRIs under the joint recruitment strategy for ASHA Sahyoginis by ICDS-PRI-Health department in Rajasthan may not have enough impact. This is because in Rajasthan, according to the recent government order, both ANMs and AWWs along with ASHA Sahyoginis are asked to report their work progress and attendance to the PRI\textsuperscript{288}. This creates a hierarchical relationship between the PRI and ANMs and AWWs.
that is likely to minimise the negotiating power of ANMs and AWWs in the joint selection of ASHA Sahyoginis. There also appears an unofficial hierarchical relationship between the PRI- "a political body" and ICDS/Health department, block, district staff, who are "salaried departmental employees". However the importance of participation of both "PRI" and "departmental representatives" in ASHA Sahyoginis' selection is acknowledged but the mechanisms to promote joint attendance and equal negotiating powers to both-PRI and departmental representatives are lacking in the current system.

The mean age of AWWs that participated in this study was 39 years, similar to the mean age of participating ANMs whose participation in RCI and service provision in Vitamin A supplementation was found to be good. Hence the reported poor work performance and lack of support by AWWs due to age seems less likely. This could be due to limited education, knowledge, skills, overlapping and unclear roles with the ASHA Sahyoginis, limited monitoring and supervision.

In relation to distance of FLWs from the workplace, a study conducted in 2011 in four states of India showed that the AWWs work better within their own residential areas than travelling from a distance. In this study, though all the AWWs from tribal area and 50 per cent from non-tribal area were residents of their work villages, their limited participation in three of the four activities was seen in both tribal and non-tribal areas. However, the 2011 study results hold true in case of ANMs and ASHA Sahyoginis in this study. The ASHA Sahyoginis' participation in
joint activities was better in tribal villages where all of them were local residents compared to 13 per cent ASHA Sahyoginis from non-tribal areas who travelled from other villages to their workplace. Similarly the participation of ANMs from the tribal villages who lived 15 kms. closer to their work villages than their non-tribal counterparts were found to participate better in joint activities. Thus proximity to the work place could be important selection criteria for all groups of FLWs. Moreover, selecting the three groups of FLWs from the same Panchayat could also overcome the problem of differential response of the community people to the three groups of FLWs and promote coordination.

The FLW survey showed educational differences between FLWs (especially ASHA Sahyoginis and AWWs) where 25% and 1.5% more ASHA Sahyoginis compared to AWWs from both-tribal and non-tribal villages had formal education beyond high school (more than 10th standard). The qualitative study identified that limited education of AWWs and both limited as well as more than required education of ASHA Sahyoginis as a factor affecting frontline coordination. Because of the hierarchy created by the difference in education between AWWs and ASHA Sahyoginis where the latter are more educated but less paid, work as volunteers and in a supportive role to the comparatively less educated but better paid AWWs, it is important that the adequate education level for AWWs and ASHA Sahyoginis must be considered as an important selection criteria. The selection of adequately educated AWWs is also important in the light of constantly evolving job
responsibilities, complex work settings, better educational status of both ASHA Sahyogini and ANMs and increasing need for coordination.

Appropriate training of FLWs was also identified as an important factor in frontline coordination. A study from the Uttarakhand state (India) showed that joint training of the three groups of FLWs not only improved their knowledge from 24% to 73% but also improved their rapport with each other, resource utilisation and programme outcomes. Literature on management of mother and child services in India and the ICDS programme stated the need for joint training of the three groups of FLWs to harmonise their roles and increase knowledge and skills for improving their coordinated performance. The FLW survey results from this study also showed joint training of the three groups of FLWs in PCs resulted in effective joint participation in PCs in contrast to their limited joint training for RCI, RVA and VACs and lower participation. The qualitative study also identified inadequacies in the FLW training as a reason for their lack of coordination.

The existing monitoring and supervision of AWWs and ANMs involves monthly report submission by them in separate reporting formats to their sector supervisors in their separately organised monthly sector meetings. For ASHA Sahyoginis, daily attendance at AWCs, work updates in daily home visit diaries, monthly reports in two separate reporting formats for ICDS and Health department and two monthly sector level meetings separately with each departments' supervisors are some mechanisms of monitoring and supervision directed by the
Joint field visits and joint monthly meetings of both the supervisors to monitor, review and report the programmes' progress at the frontline to senior line managers are also directed by the state government. Also, joint field visits, meetings, review and preparation of joint reports on joint programme efforts are required for block and district levels by the state. In practice, challenges in all the above mentioned monitoring and supervision mechanisms were reported in the qualitative study. For AWWs, poor supervision due to supervisors' vacancies, larger geographical area and number of AWWs under supervision and multiple departmental meetings were some of the reasons identified. For ASHA Sahyoginis, poor maintenance of attendance and work records and separate monthly supervisory meetings by both supervisors rather than jointly with AWWs/ANMs/both were reported. For the senior levels, lack of any joint supervisory field visits, monthly meetings, reporting and review of joint work by senior line managers were also reported.

In the existing model where about 25 AWWs meet their ICDS supervisor together on a single day for work review and feedback, the exclusive monthly meetings of AWWs with ICDS supervisor and exclusive monthly meetings of 10 ANMs with their supervisor appear reasonable. However, separate monthly ASHA Sahyogini meetings conducted by each department despite her common supportive functions to both, appears inappropriate. This would result in a waste of ASHA Sahyoginis' time but also a missed opportunity by both the supervisors to jointly meet, review, discuss, provide feedback and jointly plan the ASHA Sahyoginis' work and joint
departmental activities. A common reporting format for ASHA Sahyoginis' monthly joint sector supervisory meeting could save time and resources and facilitate joint review and action.

The ASHA Sahyoginis' processes for recording attendance and work updates i.e. daily morning visits to the AWC for recording attendance seems impractical due to her supervision and work with multiple stakeholders in (i.e. AWC/Sub-centres) and outside (field). In this case a comprehensive documentation (the purpose of visit, time spent and deliverables) of her daily work updates by her with the signature of the stakeholder (including community members) visited by the ASHA Sahyoginis may be more appropriate. However, ensuring regular maintenance of such records by the ASHA Sahyoginis would require a structured process and review with some disincentives for noncompliance or incomplete records by both departments.

Standardised reporting indicators on joint performance by both departments along with appropriate monitoring, review and feedback could contribute to more effective co-ordination.

As the nation’s and state’s commitment to the international community to eradicate polio from India is considered to have encouraged accountability and political will that could have influenced the frontline coordination in this activity, clarity on joint programme goals, stakeholders' (including the three groups of FLWs, ICDS and Health officials), clear independent and supportive roles and deliverables,
standardised monitoring indicators with appropriate monitoring of all identified joint effort at all levels are likely to contribute to more effective joint working.

This study also identified the issue of incentives to the FLWs for participating in joint activities. Incentives to all participating groups of FLWs for joint activities is also linked to "salary" as opposed to "performance based incentives" and "employee" against "volunteer" models that exist in India and Rajasthan. In Rajasthan, both-ANMs and AWWs formally form a part of the Health and ICDS department and hence receive a fixed monthly salary/honorarium in addition to participation incentives for activities like PCs. Such formal arrangements make them accountable for their participation in all department activities (including PCs) when required. An additional participation incentive for them for all joint activities that already form part of their job description and for which they are paid an additional salary/honorarium may not be required. Such incentives may be useful only when their participation is required in any activity on days other than their official working days, which is the case in PCs. The PCs are usually organised on a holiday for better population coverage.

In contrast, ASHA Sahyoginis are community volunteers who are not formally employed by either the ICDS or health department and receive a fixed honorarium from ICDS and performance based incentives from the health department. The participation incentive that the ASHA Sahyoginis receive for PCs from the health department is part of their performance based incentive. In the absence of a salary
and regular employee status, such participation incentives are an important motivation factor for the ASHA Sahyoginis to participate in any independent or coordinated activity organised by the health department.

There is also evidence from other departmental programmes that providing incentives to the ASHA Sahyoginis increases performance\textsuperscript{305}. The lessons from CARE India’s RACHNA Programme that recruited "community change agents", now converted to ASHAs by NRHM also showed the importance of incentives in motivating such community workers to support existing government programmes\textsuperscript{306, 307}.

The current workforce of one AWW, one ASHA Sahyogini and one ANM responsible for one village (700-1000 population) can work in coordination and achieve common programme goals provided the right number and quality of FLWs are recruited, trained, paid and appropriately monitored for their performance against their clearly defined roles and deliverables in an enabling professional and organisational environment. The recruitment of additional FLWs may improve programme outreach, but would add to the complexity of coordination. It would, therefore, be important to first address the systemic challenges found in the study to improve child health through vaccine coverage, Vitamin A supplementation and other joint activities carried out by the FLWs.
6.3 Recommendations

The following recommendations to policy makers are made based on the findings from this study:-

1. **Prioritise coordinated approaches to addressing child health and nutrition issues.**

   a. Governments should promote multi-sectoral programme designs to address complex child health and nutrition challenges by pooling funding for programmes. This should include clarity on relationships, roles, deliverables and resource sharing between the various sectors, thus ensuring cost efficiency and better impact.

   b. For coordination between ICDS and the health department, the two departments should identify core coordination initiatives at each administrative level (frontline, sector, block, district and state) and the roles, responsibilities, timeline, resources and deliverables from each participating department in these initiatives. This may be followed by joint planning for resources, budget and monitoring of joint activities (field visits, meetings, reports, etc.). The national and state level inter-ministerial committee meetings can also be used to discuss and disseminate lessons learnt.

2. **Promote ICDS-Health (RCH/NRHM) district/block/sector level coordination**

   a. For structural alignment of ICDS and health departments' sectors in Rajasthan, field data collection and matching (number and location of villages, AWCs, sub-centres, Panchayats and land area, and workforce under both-ICDS and Health
departments' sectors) by both departments is essential. This can be done through joint consultation at higher administrative levels to get institutional consensus, state directive and operational plan for sector alignment across the state.

b. This sector alignment may also promote joint meetings of ASHA Sahyoginis with ICDS and health supervisors for joint work planning and review. Also, the joint meetings of all FLWs with ICDS and health supervisors at sector level may promote their joint capacity building.

c. The frequency of such joint departmental meetings at sector and higher levels can be planned in an integrated way e.g. every month for ASHA Sahyoginis and bi-monthly for all groups of FLWs at sector level; once in three months at block level; once in four months at district level; and biannually at state level. Determining day/date and agenda along with linking the attendance of officials and FLWs with their annual performance audits in these joint meetings may improve the quality of such meetings. The agenda in these meetings can have "fixed" and "flexible" components. The former may include reporting on specific coordination indicators, discussion on challenges, mitigation plans and future roadmaps with details on targets, timelines, resources and responsible individuals. The latter could include capacity building and information sharing activities.

3. Selection of frontline workers

a. Wider publicity of vacancies of FLW posts may attract more and better quality applicants which could result in appropriate selection of candidates based on
merit rather than nepotism. Appointing FLWs from within the same *Panchayat* or nearest *Panchayat* and appropriate educational standards (especially of ASHA *Sahyogini* and AWWs) may also facilitate coordination. The participation of representatives from both departments and PRI with clear and transparent procedures i.e. standard score cards (that includes selection criteria such as education, local residency, past work experience etc.) for the recruitment of ASHA *Sahyoginis* would contribute to improving the selection of appropriate FLWs. Publishing information such as the selection criteria, selection process, proportion of applicants who met the selection criteria and summary of profile of those selected, in the annual NRHM state report may contribute to greater transparency in the recruitment process.

4. **Role clarity, knowledge and skills of FLWs**

   a. Review of job descriptions of each group of FLW to understand the differences and similarities in their outputs; independent and joint roles; and roles, responsibilities and deliverables of each group in joint roles may help improve role clarity in FLWs. Efforts to reduce role duplication by clearly entrusting some tasks to one group of FLW along with mechanisms (e.g. issuing detailed appointment letters and training on roles and responsibilities; monitoring and linking attendance and feedback from co-workers on each FLWs' supportive performance in joint activities with their performance appraisal) to encourage and monitor the joint responsibility of FLWs in other joint roles may improve frontline coordination.
b. The appointment letter to every FLW could specify her employee/volunteer status, employment tenure, specific independent and supportive roles and deliverables, suggested time allocated to the different departments, leave policy, attendance and work reporting requirements, incentives/remunerations/rewards during employment, career progression path, retirement age etc.

c. Periodic organisation of joint training of the three groups of FLWs using sector level supervisory meetings as a platform may be useful. Such training could focus on establishing role clarity amongst FLWs, need for teamwork and discuss challenges faced during joint working. Individual induction for FLWs could include areas, roles and deliverables during joint activities. Use of innovative training methods such as case studies, scenarios, field visits, and practice sessions along with periodic rapid appraisals of training outcomes can improve FLWs' skills to perform their independent and joint roles.

5. Periodic monitoring and supervision

a. For improving monitoring of coordination efforts (e.g. structural alignment, periodic joint meetings, joint field visits, participation of FLWs in joint activities etc.) at all levels, measures such as identifying reporting indicators; designing and circulating reporting formats; deciding reporting periods, timelines; and identifying methods to disseminate the lessons learnt would be useful.

b. For ASHA Sahyoginis, a common monthly report presented by each ASHA Sahyogini to both department supervisors in a joint sector level monthly meeting could avoid duplication, save time and facilitate joint work planning. For monitoring her daily attendance and work update, they can be asked to maintain
the daily diary signed by an appropriate stakeholder (PRI/ANM/AWW/any other).

c. Sector alignment; adequate supervisory staff given adequate time, training and resources by their departments to monitor and supervise their FLWs; coordination and periodic feedback by block officials to sector supervisors may help improve not only the independent but also the supportive role performance of all FLWs.

6. **Rewards/incentives for joint participation**

a. Recognition by the state government (in cash/kind) on an annual basis to the best district, block, sector and village based on performance on interdepartmental coordination (ICDS-health department in this case) may improve motivation of those involved. Integrating various methods of rewards at other levels such as *Panchayats*, sectors, blocks and districts to recognise effective joint performance by stakeholders from both departments in their area could also contribute to effective co-ordination.

b. Incentives based on joint assessment of performance of ASHA *Sahyoginis* by both supervisors could be jointly paid by both departments on a monthly basis. Clarity on career progression for ASHA *Sahyoginis* and promotion based on work performance and experience could contribute to job security and motivation for better performance.

c. Incentives in cash/kind can be paid to the AWWs and ANMs if their participation is required in any joint activity outside official working days.
d. Clearly mapping the type of rewards (salary/honorarium/performance incentive) used by both departments for each group of FLW against the roles played by them in joint activities could contribute to improved transparency, realistic expectations and better joint working.

e. Appropriate measures to deal with poor attendance, poor performances etc. should identified and implemented appropriately.

7. **Improvements within departments for better coordinated performance**

a. The current international and national debates on bringing nutrition to the centre-stage for political and programmatic discourse is likely to bring the focus on various nutrition interventions including the ICDS programme in India and Rajasthan state\(^{308, 309, 310}\). It is suggested that this can be utilised for creating political momentum for improvement in ICDS programme i.e. improving human resources, information management systems, monitoring and supervision, infrastructure etc. These were the issues identified in this study that had an impact on both work performance of AWWs, and their coordination with other FLWs.

b. Reforms started in the health sector in India and Rajasthan under NRHM since 2005 must continue to emphasise strengthening the health sector in terms of its human resources, information management systems, infrastructure and quality measures.

6.4 Ethical Review and Ethical issues faced in during the research process
The ethical review of this study was done by Public Health Foundation of India (PHFI), the Indian partner of Wellcome Trust (UK) in India. The review committee raised only one ethical issue i.e. verbal over written consent of the study participants. In response, the ethical committee was informed of the experience from the formative and pilot stages of the study which demonstrated hesitation and fear by women to sign any document.

Ethical issues during field work: Conducting In-depth Interviews (IDI) of Frontline Workers at their home rather than their office was done to ensure their confidentiality and ability to discuss issues openly and without fear which may have been the case when their colleagues were present in the building. However, during one of the IDIs, the husband of the ASHA Sahyogini arrived home drunk and was not happy about the participation of ASHA in the interview as well as my presence as a stranger in their house. While this IDI was conducted with the ASHA's consent at her home, it did create problems for the ASHA as well as me as the researcher. To defuse the situation I suggested discontinuing the interview and postponing it to another day. However, the ASHA was keen to complete the IDI, she took 15 minutes out to make her husband understand the purpose of my visit as well as this IDI and returned to the interview which was then completed without further interruption.

6.5 Study limitations and challenges

The study required a multidisciplinary understanding of the concept of coordination to be able to understand the nature, dynamics, processes and challenges of co-ordination
between FLWs to improve child health and nutrition in Rajasthan. The literature review found limited evidence on understanding the processes and operational realities of underpinning working in such coordinated models.

The main guidance was identified as state policies, guidelines and administrative orders that are liable to periodic changes and amendments. To access such documentation in Rajasthan through state offices, government web-sites and libraries was limited as most of these documents were not available for public access.

In the data collection phase, as the participation of FLWs in routine and camp mode of service delivery was explored using multiple research methods, the direct observation method could not be used to triangulate the FLW survey findings on VACs and PCs. This was because at the time of primary data collection there were no camps.

The data matching exercise conducted to understand data coordination among FLWs was limited in the case of Vitamin A supplementation due to the discrepancies in the existing register formats, unavailability of special Vitamin A registers at the AWC and poor data recording by all groups of FLWs. Similarly, it was limited in the case of polio due to the differing register formats and non-availability of any other data source with the FLWs on routine and polio camp coverage.

The mothers' survey was limited to those whose details were found in the registers of ANM and at AWCs. As the survey listed 388 eligible mothers out of the expected 400,
it covered the majority of mothers i.e. 321 of them. The high drop-out rate of mothers from the non-tribal village due to temporary migration following returning to the woman’s paternal home for the birth of their children was not anticipated. Collecting primary information from all 321 surveyed mothers on actual immunisation and Vitamin A coverage status of their children could have added insight to the coordination process related to outcomes. However the poor immunisation card retention rate and issues related to mothers' recall on multiple vaccines including polio drops was the reasons for not using them in the survey design 311, 312, 313, 314.

Access to officials above the block level from both the departments for interviews was difficult. Hence the replacement of district health department head (DMHO) by another district level health department officer nominated by the DMHO for the interview was done. Similar challenges were faced with the newly appointed district ICDS project head who could not be contacted despite three attempts to meet her.

In the pilot phase when women were asked to sign a consent form following consent it was noted that the mothers feared signing anything without the permission of their husband or family members though they were happy to share their views when a signature was not required. Similarly, the FLWs and line managers worried that their signatures or audio records were a proof of their views (especially when it was negative) against their colleagues, PRI and senior line officials. This was a cultural issue and it was not possible to convince the participants that this would not be the case and complete confidentiality would be guaranteed. The act of signing or recording did
not comply with their view of confidentiality. Thus respecting participants' cultural understanding of confidentiality, verbal consent and field notes (in few cases) were used in the field.

Finally, as this study is limited to Rajasthan which has a unique ICDS-Health department coordination model especially at the frontline, the findings from this study may not be generalisable to other Indian states. The limited scope of this study does not allow comments on whether the Rajasthans' ASHA Sahyogini model of frontline coordination is better than the other states where the ASHAs are the part of only the health department.

6.6 Study Contribution

This case study adds to the existing literature on coordination between two national programmes in Rajasthan. The study contributes to a more in-depth understanding of what works and the issues related to FLWs coordination in Rajasthan, and may help the state government and programme administration to gain an insight into inter-programme coordination. Beyond Rajasthan, this study adds to the national evidence-base on existing coordination models. This may be useful to planners, practitioners and researchers from other disciplines and sectors for gaining an understanding on the issues that may affect joint working in a human setting.
6.7 **Areas for future research**

A comparative study of Rajasthan’s ICDS-RCH coordination model with that of another state in India where ASHAs are not the part of ICDS would be useful to compare the benefits and challenges of coordination. A study on the cost effectiveness of "coordinated" over "independently" operating programmes and projects is needed for planning by the policy makers. Studies that examine the state of inter-sectoral coordination at programme levels beyond the frontline is needed to understand the existence, adherence to or problems of various coordination mechanisms by the two programmes line managers.

6.8 **Conclusion**

The study identified limited coordination between the three groups of FLWs in the study areas of Rajasthan in relation to both process and outcomes. Multiple stakeholders (FLWs, line managers, PRI and programme beneficiaries) and factors (i.e. personal, professional, organisational, political and geo-socio-cultural) were seen to interact and influence the coordination among FLWs. In the existing model of work between the three groups of FLWs, it was seen that the experience of joint work was not only affected by lack of support by co-workers in joint roles but also by the non-performance by co-workers in their independent yet interconnected roles. Though assumed to be a horizontal process, the coordination between FLWs was also influenced by challenges within and outside their own programme.
With reference to the frontline level, the following strategies are proposed-

- Improvement in FLWs' recruitment procedures (compliance with selection criteria, adequate publicity of vacancies, joint selection, use of score cards, transparency of results and detailed job offer letters)
- Mapping roles and deliverables of each group of FLWs in coordinated tasks and using induction and ongoing sector meetings for capacity building on roles, knowledge and skills of the FLWs
- Regular organisation and adequate use of joint sector meetings of FLWs (especially ASHA Sahyoginis) by the sector line managers along with an appropriate strategy to monitor ASHA Sahyoginis' daily attendance
- Timely and jointly paid adequate performance based cash/kind incentives for ASHA Sahyoginis and similar incentives/rewards for AWWs and ANMs for participation in coordination activities on holidays

However, the proposed recommendations related to recruitment, training, supervision and incentives may not get the attention and focus in the absence of political will (e.g. Rajasthan state government in this case) to promote and ensure coordinated approaches between sectors, departments and programmes to address complex public health goals such as reducing infant and child mortality. Thus the thesis proposes a range of measures (pooled funding and resources, operational and structural alignment, clear roles and responsibilities, clear deliverables, timeline and monitoring framework) that can be taken by Rajasthan government to ensure more effective co-ordination. The
sector specific reforms i.e. health and ICDS are other opportunities for the state government to demonstrate their commitment towards system strengthening between the two sectors, departments and programmes and also integrate and promote team working to address complex public health challenges.

In conclusion the three groups of FLWs work in a complex system and the characteristics and dynamics between FLWs as well as of the wider system beyond may affect FLWs' coordination. Changes to the existing recruitment, training, supervision and incentives strategy may address many of the personal and professional challenges faced by the three groups of FLWs while working together. However, strengthening the two programmes by appropriate resource sharing and aligning operations underpinned by political support could promote inter-programme, inter-departmental, and inter-sectoral coordination and set the right tone for coordination at all levels, including the frontline. Also, such measures will not only benefit frontline coordination in child health and nutrition but may extend to others programmes for example maternal, adolescent and family health programmes, that are also common areas of work for the three groups of FLWs and their two departments and programmes - WCD (ICDS) and Health (RCH/NRHM).
REFERENCES


11 NFHS-3 (2007), Summary of the findings, Ministry of Health and Family Welfare, Government of India, New Delhi, Volume 1, pp:35


15 NFHS-3 (2007), Summary of the findings, Ministry of Health and Family Welfare, Government of India, New Delhi, Volume 1, pp:39


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139 Young, N. and Gardner, S. (2002). Navigating the pathways: Lessons and promising practices in linking alcohol and drug services with child welfare. Technical Assistance Publication (TAP) 27. Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment


149 National Policy for Children (22nd August 2004). Department of Social Welfare, Government of India, New Delhi


161 Indian Public Health Standards (IPHS) for Sub-centre-Guidelines 2006 (March 2006). Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, New Delhi, India


Government Order number F21/NRHM/ASHA-4/09/3863 (2009). Medical, Health and Family Welfare Department and Integrated Child Development Scheme-Department of women and child development, of Rajasthan, Jaipur, Rajasthan, India

Guidelines for Monitoring and Supervision visits to ICDS Blocks and Anganwadi Centres (AWCs) by Officials of the State and Central Government and Involvement of PRIs in Monitoring of AWC Activities (October 2010). ICDS Monitoring and Evaluation Unit, Ministry of Women and Child Development, Government of India, New Delhi, India

Young, N. and Gardner, S. (2002). Navigating the pathways: Lessons and promising practices in linking alcohol and drug services with child welfare. Technical Assistance Publication (TAP) 27. Rockville, MD: Substance Abuse and Mental Health Services Administration, Centre for Substance Abuse Treatment


Roles and Responsibilities of AWW, Department of women and child development, Ministry of Human Resource Development, Government of India, Web-link: wcd.nic.in/Roleandresponsibilities.doc. Last accessed 10th June 2010

Government Order Number: F-21/NRHM/ASHA Convergence/62803 (18th September 2009). ICDS and Medical, Health and Family Welfare Department, Government of Rajasthan, Jaipur, Rajasthan, India


CORT (2007). Assessment of ASHA and Janani Suraksha Yojna in Rajasthan, CORT India, Vadodara, Gujarat, India


CORT (2007). Assessment of ASHA and Janani Suraksha Yojna in Rajasthan, CORT India, Vadodara, Gujarat, India


224 Rao (2007-08). Role of ASHA in promoting safe delivery in Rajasthan, Population Research Centre, Mohanlal Sukhadia University, Udaipur, Rajasthan, India


226 Rao (2007-08). Role of ASHA in promoting safe delivery in Rajasthan, Population Research Centre, Mohanlal Sukhadia University, Udaipur, Rajasthan, India


234 Rao (2007-08). Role of ASHA in promoting safe delivery in Rajasthan, Population Research Centre, Mohanlal Sukhadia University, Udaipur, Rajasthan, India

235 CORT (2007). Assessment of ASHA and Janani Suraksha Yojna in Rajasthan, CORT India, Vadodara, Gujarat, India


ARTH (February 2005). Census of Health Facilities in Udaipur District, Rajasthan, Action Research and Training for Health (ARTH), Udaipur, Rajasthan, India.


Operational guide for Pulse Polio Immunisation in India (2006), Ministry of Health and Family Welfare, Government of India, New Delhi, India.


Government Order-F-26(4)/AS/T&C/ICDS/10/44387 and F-21/NRHM/ASHA/Convergence/2009/6993 (25.6.10). Department of Women and Child Development and Medical, Health and Family Welfare Department, Government of Rajasthan, Jaipur, India


RCH-Phase II-National Programme Implementation Plan (2005), Ministry of Health and Family Welfare, Government of India, New Delhi, India


Rao, Mohan. (October 2006). Neglecting hunger, bypassing health. InfoChange News and Features


Saxena, N.C. (2009). Call to Action: Hunger, under-nutrition and food security in India. Policy brief series. New Delhi, Centre for Legislative Research and Advocacy (CLRA):8


Martin, Abel. et al. (2008-09).Effect of Supportive Supervision on ASHAs’ Performance under IMNCI in Rajasthan. UNICEF and Indian Institute of Health Management Research (IIHMR), Jaipur, Rajasthan, India

Government Order Number F-26/AC/T&C/ICDS/10/44387 and F-21/NRHM/ASHA/Convergence/2009/6993 (25th June 2010). Department of Women and Child Development and Medical, Health and Family Welfare Department, Government of Rajasthan, Jaipur, Rajasthan, India


Government Order Number F-11 (2)/MO/ICDS/08/39919 and F-21/NRHM/ASHA- Convergence/08 (16th June 2009). Department of Women and Child Development and Medical, Health and Family Welfare Department, Government of Rajasthan, Jaipur, Rajasthan, India

Working conditions of Anganwadi Workers (2010-20011). Eight Report of Committee on Empowerment of Women. Lok Sabha-Parliament of India. Lok Sabha Secretariate, New Delhi, India


