***Jeeva Project* – *Research Study Proposal*:**

The role of indigenous midwives (Dais) in the health and wellbeing of birthing women and newborns in four diverse and remote locations in India

Introduction

Childbirth complications leading to maternal and neonatal mortality or later disabilities are a genuine concern among health policy-makers as well as medical and development professionals. Policies that rely exclusively on hi-tech biomedical facilities and on personnel trained only in such technology ignore the vast national resource of indigenous knowledge, skills and practitioners and are less than adequate to address these problems. It is within this context that the non-recognition of traditional birth attendants (TBAs) or dais and their contributions to the wellbeing of mothers and newborn infants becomes a point of attention.

Dais are indigenous health care providers for women in India. They offer available, affordable and culturally acceptable midwifery services during and after childbirth. There are no correct estimates of their numbers, but assuming an average of one to two per village[1] there would be about six hundred thousand dais. At one time they served all sections of society in their local vicinities. Colonialism's imposition of modern medical ideology has not only marginalised dais but also projected them as "ignorant and dangerous". Today they work mostly in impoverished populations living in degraded environments. This consistent process of exclusion undermines official efforts to reduce infant and maternal mortalities and morbidities.

We propose a thirty six months' research project to study the work of experienced dais and its public health value in four diverse rural contexts in India. Included will be an analytical review from the fields of western bio-medicine alongside the formal indigenous healing systems, particularly Ayurveda, to cast light upon the possible mechanisms of how some of dais' practices work.

Conceptualisation of the Problem

Understanding the dais' role in neonatal and maternal welfare in the rural context requires an interdisciplinary approach to help explore the interface between knowledge domains, both modern and traditional, that mould the working of health care providers in these systems. The poor and the marginalised, whose physical, social and economic access to modern services is severely limited, continue to depend upon the traditional dai. Her work is woven into the social fabric of the villages where, among the poorest sections with monthly per capita expenditure of Rs.340 or less, homebirths are still as high as 61.0 percent[2]. Hence to appreciate her contribution we need to understand her location within the village social structure and dynamics, her skills, knowledge and their cultural rootedness, and the inherent potentials in her relationships with other providers. These linkages can be strengthened to make her work complimentary and bring her closer to the health service system for promoting neonatal and maternal survival and wellbeing.

Thus to understand the value of the dais' work we conceptualise their role as an outcome of the following processes grouped into three key aspects: the social context of the marginalised, cultural rootedness of dais' skills and knowledge and their links with health services.

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[1] According to the 2001 Census of India, there are 593,732 inhabited villages.

[2] NSSO, 2006, 60th Round of NSS (January to June 2004).

The Social Context of Marginalisation

Dais are a part of the society they serve, working within constraints imposed by the dynamics of caste, class and gender. They usually come from poor and marginalised communities largely constituted by the Scheduled Castes (SC), Scheduled Tribes (ST) and other groups officially designated as 'Backward' (OBC). These sections are also the main users of the services that dais provide. Regional development disparities and the processes of privatisation, including public-private partnership, are gradually squeezing such communities out of coverage by the health services that neither respond to community needs nor cater to those unable to pay. At the same time living constraints are tightening due to environmental degradation with loss of livelihoods, rising costs, and without state welfare coverage. Insufficient food, overwork, polluted environments and gender-based violence all lower poor women's health status even before they begin reproducing. Under such conditions, in fact, the impact of any health service intervention is limited. A grasp of this context will help us understand the limitations of providing services as well as accessibility issues and *the reasons why people depend on dais*. It would also help our understanding of service provisioning across caste groups and systems of remunerations.

Cultural Rootedness of Dais' Skills and Knowledge

Concepts of the human body and its place in the world are central to any culture and tend to hold special meaning among women. Accordingly, through oral and hands-on transmission, families and communities have traditionally instilled habits of body care and healthy living in their children. Practices relating to childbirth have prevailed in women's protected spaces and reposed in the consciousness of traditional midwives in communities. Ideas and skills relating to care in pregnancy, birthing and the post-birth period constitute the basis of dais' knowledge base. This reservoir of knowledge continues to exist even as so-called modern medical services reach the villages.

Menstrual blood and the after-products of birth are considered socially polluting and untouchable not only in Hindu predominant culture but also in the Judeo-Christian traditions of the West. In India where the prevailing socio-religious caste hierarchy is based on purity and pollution, not only taking care of the reproductive functions of women's bodies got linked to caste based work, but all women menstruating or giving birth were also drawn into the category of polluters. Thus we find that their caregivers, the dais, are mostly from the low castes. It is a paradoxical situation in which women skilled in birthing and postpartum care, appreciated by those whom they serve for comfort and even the saving of lives, are relegated to the bottom of the power structure along with those skilled workers who deal with the dead animals and humans.

Unfortunately the legacy of colonial medical education and the predominant bio-medical perspective have led researchers to largely ignore a socially sensitive evaluation of traditional systems. Had the basis and method of traditional knowledge, its contextual relevance, utility, social embeddedness and its transfer over generations been explored, it might have contributed to a mutual understanding and a complementary evolution of the modern and traditional health care services. Even when traditional practitioners have been considered by the modern system, it has been as adjuncts and subordinates who needed "training" in a process that was never reciprocal. Consequently some distinctive practices of dais have been ignored, such as constant support to the birthing woman throughout labour, perineal oil-massage to avoid tears, encouragement of semi-vertical and other birthing positions, management of some specific complications in labour, placental stimulation for revival of a distressed newborn, systematic post-partum care, etc. Most of these practices – if recognised at all – have been considered harmful. Hence, the system has not been able to build or sustain linkages between dais and the frontline health care providers – ANMs, AWWs and now ASHAs – in the modern services sector.

This study will explore the interface between the social and knowledge domains that shape the working of modern and traditional health care providers and the possibilities of linking the two systems in the interests of marginalised women's access to equitable, safe and quality care within the changing socio-cultural context.

Dais' Linkages with the Health Services

Deeply rooted in their local contexts, the dais play specific service roles:

- They attend to women giving birth in remote areas and among the marginalised.
- In case of referral, they often accompany women to the health care institutions.
- They give after-birth care to mother and newborn in the family's home.

These key points of intervention are important to explore for the existing channels of communication, help and support, just as much as the conflicts that might exist, between dais and the frontline health care providers – ANM, ASHA and AWW.

An important aspect of the link with providers is the role dais may be playing in moderating the use of oxytocin injections by private practitioners to hasten birth, either in containing or in promoting its use. Yet another aspect to explore is the extent to which dais recognise their limits and can prevail upon the family for referral. Do they know which cases they cannot manage, or do they handle complicated cases under pressure from the woman's family? In this context it is important to assess dais' experience with the formal health care system and personnel and their views about it all.

These linkages are the source of strengthening the health service system by bringing dais closer to it and of augmenting neonatal and maternal wellbeing and survival.

Aims and objectives of the project

The overall aim of the Jeeva Project is as follows:

> *To study the role of experienced traditional dais, their knowledge and their skills in determining the wellbeing and survival of mothers and newborns in their own social context and to explore their linkages towards strengthening the formal health services.*

The components of this study are:

1. To profile four diverse socio-economic and cultural rural contexts where home-births assisted by dais are common.
2. To identify the experienced dais and explore their diverse backgrounds, work patterns and quality of support to birthing women and newborns.
3. To document traditional birthing procedures and practices from onset of labour to end of first week, including dealing with complications.
4. To identify 'key practices' and study their prevalence and association with outcomes, with a focus on 'placental stimulation to revive a newborn'.
5. To probe the links between dais and the health services, focusing on relations with ANMs, AWWs and ASHAs as well as RMPs, indigenous healers and NGOs.
6. To explore the epistemological dimensions of dais' knowledge base and rituals for developing a way to communicate it to the bio-medically oriented world.
7. To explore the possible physiological mechanism of 'placental stimulation' through literature review and interview of experts in both traditional and modern medicine.

The Study Partners

The "Jeeva" initiative was begun in 2007 to strengthen the evidence base in support of systemic inclusion of dais and their skilled tradition. It has given rise to a team of researchers with medical, public health and social sciences backgrounds. We have already undertaken two research activities, namely the pilot interviews of dais in Jharkhand in 2009 followed by exploratory exercises in the four proposed study locations in Jharkhand, Karnataka, Ma-

harashtra and Himachal Pradesh, completed in May 2010. In August 2009 we held a workshop that brought various concerned experts together with the prospective regional partners.

Our study design has been facilitated by baseline data from both pilot study and exploratory exercises on parameters such as population characteristics, prevalence of home births, currently practicing dais, status of health services, etc. The four study locations are selected for their remoteness, diversity and the presence of a local partner organisation. The partners are as follow:

- *Jan Chetna Manch,* Bokaro Dt., Jharkhand (Chandankiari Block)
- *Janarth Adivasi Vikas Sanshtha*, Nandurbar Dt., Maharashtra (Dhadgaon Block)
- *Society for Rural Development and Action*, Mandi, Kangra/Mandi Dt., Himachal Pradesh (Baijnath / Darang Block), and
- *Vimukthi AIDS Tadegattuva Mahila Sangha*, Bellary Dt., Karnataka (Kudligi Block).

The partners' role is to support and facilitate the research activity, including interfacing with the village communities and the local government and health authorities. All of them took part in the Planning Workshop in August 2009. They will participate in local supervision and monitoring and hope to raise their own research capacities.

This study coincides with and supports an allied study of 21 months supported by the AYUSH Department (Ministry of Health and Family Welfare, Government of India) in the same study area. That study focuses on quantitative assessment of the social and economic context of the villages as it relates to childbirth care, birthing experiences of sampled households over the past two years including complicated births, and assessment of the formal services and personnel as they relate with the dais' world.

The Study Population

The four selected areas are located in Chandankiari block of Bokaro district (Jharkhand), Baijnath and Darang blocks of Mandi and Kangra districts (Himachal), Dhadgaon block of Nandubar district (Maharashtra), and Kudligi block of Bellary district (Karnataka). The population in these blocks together has a high proportion of *dalit* (SC), *adivasi* (ST) and other marginalised sections. Yet, there are distinct differences. For example, the sites in Bellary and Bokaro districts have a mixed SC, ST, OBC and general castes but in Nandubar it has only ST with a small SC population while the Kangra/Mandi site has only higher caste (Rajput) and SC groups. The villages vary distinctly in structure, from more concentrated habitations to sparsely distributed hamlets. Likewise their physical terrains vary from rolling or rocky hills to high hilly and forested ranges as well as ecologically depleted areas with very scarce social services and infrastructural facilities. The villagers' primary livelihood relies largely upon rainfed agriculture with public sector jobs for a few. Otherwise the options are occasional daily wage work or migration to industrial or mining areas. The local partner organisations are active in the areas and the nature of their work is varied. Aside from other development work, three are working in the area of maternal health while the fourth is mainly engaged in HIV/AIDS awareness generation.

Through the exploratory exercises during the bridge period a total of 56 villages have been selected, giving a total study population is 41,755. Site-wise the number of villages is between 5 to 34 villages or hamlets, with the site population varying from 9,686 to 11,036. Each location covers contiguous villages covered by a PHC along with sub-centres or additional PHC, some of which are non-functional. The total number of dais of all grades of experience and popularity varies between 26 and 56, totalling 172 dais, with 23 male dais practicing in the study area chosen in Dhadgaon block of Nandurbar district. The number of Anganwadi Centres (AWCs) meant to serve the women and children in each study area varies from 11 to 37. Each has its set of Anganwadi Workers (AWWs), ASHAs and ANMs. Also, based on the preliminary findings on births in these areas, in one year there are roughly 1000 births.

Table 1: Over View of Study Population Profile and Government Services

Area: Block, District, State	Study Area Population	No. of Villages	Caste Structure	Economy & Ecology	Govt. H. Facilities	AWCs	No. of Dais
Kudligi Block,, Bellary Dt. **Karnataka**	11,036	07	SC, ST Muslim, OBC,Gen (Lingayat)	Agriculture, migration to mining area	Sub-centre PHC	12	38
Dhadgaon Blk. Nandubar Dt. **Maharashtra**	10,586	09	ST, SC	Agriculture, migratory labour	Sub-centre PHC	23	52 (29 F, 23 M)
Chandankiari Bokaro Dt. **Jharkhand**	9,686	05	SC, ST, OBC, Muslim, General	Agriculture, manual and migratory labour	PHC (non functional), Purulia C. Hosp.(WB)	11	26
Baijnath /Darang Block Kangra/Mandi, **Himachal Pr.**	10,447	34	General (Rajput) SC	Agriculture, migratory labour	PHC (Non functional)	37	56
Totals:	**41,755**	**56**				**83**	**172**

Source: Survey compilation from the four Exploratory Exercises, June 2010.

Research Design

Given the complexity of the overall problem and the need to capture the regional variations as well as develop an in-depth understanding of all the processes and practices that dais are engaged in, we have planned a comprehensive, interdisciplinary and multi-centric research project to be conducted over the 36-month period. Table 2 presents a summary.

Table 2: Phasing of the Research Activities in 36 Months

The matter in this table corresponds to the Time-Frame provided as Annexure 2.

Phase	*Activities*	*Time Period*	*Links with AYUSH*
Phase I: Preparatory (first month, extending into the second month)	1) Final staff appointments and MoU-signing with Partners 2) Initiation of Literature Review Updating (completion 3rd mo.) 3) Central Training: Initial Orientation of Core Staff and Researchers 4) Establishing the Centres at Pune and Delhi	1st month 1st month Middle of 1st month 2nd month	After Central Training, the core staff and researchers (JRAs, SRAs) will carry on with the Regional Training and activity supported through the AYUSH grant.
Phase II: Preliminary Surveys (7 months)	1) Survey I (33% of House-holds) will begin along with Regional Orientation & Training in each site, with on-the-job, supervised team training.	2nd through 6th month	The Survey activity takes advantage of the support budgeted thru the AYUSH grant.

(continued)	2) Confirming Dai Mapping and Identifying experienced and Popular Dais 3) Survey II of perceptions of Health Care Providers (MO, ANM, AWW, ASHA, RMP) about home deliveries, dais role and competence, etc.	(along with both HH and Providers' surveys) 6th through 8th month (2-3 months)	These activities coincide in the two studies, but the focus of concern of each study is somewhat different, as explained in this proposal.
Phase III: Qualitative Dai Interviews, with Birth Tracking & Observation, Cross checking key information (17 months)	1) Regional Training in Qualitative Methods (5 days at each site) before interviewing Dais 2) Retrospective Birth Tracking (last 2 years, from 33% svy); follow up of births conducted by experienced Dais and additional complicated births to know Dais' role. 3) In-depth Dai Interviews: 2 more sessions with experienced dais on work context, content, pattern, relations, links with other providers, knowledge base, rituals, etc. 4) Interviews with other Dais: 2 sessions with 15 second-line dais for profile/experience. 5) Cross-checking of dai's narratives, and key information with the community	1st week 9th through 25th month (6 months) 14th through 18th month (5 months) 19th through 23rd month (5 months) 20th through 25th month (6 months)	Training arrangements are covered in AYUSH budget, with the special qualitative component involving partners too. AYUSH covers the first two Dai interviews not listed here (see annexed Time-frame). The three research activities (2,3,4) will be simultaneous with at least two of them overlapping. Activity 2 (retrospective birth tracking) is covered under the AYUSH component. This is specifically to check information provided by the Dais
Phase IV: Prospective Survey of Birth Outcomes (1 year)	This is a quantitative survey that covers the births occurring in the 33% sampled households to assess the outcomes and type of intervention / place of birth etc.	14th through 25th month (12 months)	(AYUSH field work ends with 13th month.) This Phase overlaps with Phases III & V.
Phase V: In-depth Socio-Cultural Profile in one Village, of Birthing Dynamics, Knowledge,: (1 year)	1) Intensive study of a village, its complete overview. 2) Qualitative probe into socio-cultural dynamics of birthing skills/knowledge base (rituals, social relations, terminologies, knowledge & skill transfer, work interactions) 3) Cross checking and filling in gaps in key qualitative data	14th – 15th (2 months) 16th through 25th month (10 months) 20th - 25th mo. (6 months)	This village study is to contextualise the Dais. This is in-depth anthropological exploration to strengthen our understanding of the epistemological basis of Dais' knowledge. Activities 2 and 3 overlap.
Phase VI: Analysis, Reporting and Dissemination (17 months)	1. Data organisation 2. Final Analysis with integration of qualitative and quantitative data	20th through 36th month (17 months)	Data processing and qualitative analysis will go on from the earliest stage of data collection.

(continued)	3. Final Literature Review 4. Report-writing, publication 5. Dissemination meetings at local/state/centre levels.	25^{th}–36^{th} mo. (last 1 year)	Dissemination and advocacy activities will be held at all appropriate levels.

The **Time Frame of the Study**, provided as Annexure 2, shows (a) how this study complements and weaves into the 21-Month AYUSH Study and (b) that the study phases overlap as various components are linked. Here we elaborate the main details that include both AYUSH and ICCHN components of the Jeeva Project.

Phase I*: Preparatory Activities*

Preparatory activities in the first month, some of which extending into the second and third months, will include:

a) Selection of the Core Staff and Researchers, with signing of MoUs (with CWDS)

b) Finalisation of Training Arrangements at Central and Regional levels, with translation (into Hindi, Marathi, Kannada) of regional orientation materials and guidelines.

c) Finalising the MOUs ("Collaboration Agreements") with the partners, with completion of selection of FRAs (local field research assistants) and local link persons.

d) Central Orientation and Training Workshop: The Shepherds will hold a week-long training at Delhi for the Core Staff and Researchers (SRAs, JRAs).

e) Regional Team-Training Workshops: 5 days, with the local partners at each of the four locations, extending into on-the-job training in Survey I (Household Survey)

f) Establishing Co-ordination and Data-Management Units at Delhi (CWDS) and Pune (ICCHN), including co-ordination protocols and data management system

g) Initiation of the Literature Review Update, to encompass fields of anthropology, bio-medicine and physiology, ISM (Indian systems of medicine) and public health.

Phase II*: Preliminary Surveys*

1) **Survey I – Socio-Economic and Cultural Context of Birthing:** This is a systematic 33% sample survey of households in each study village to understand the caste, class and demographic profile of villages, their social structure, economic constraints and availability of services. It will also record experiences and perceptions of birth practices, services available to pregnant women, their providers and preferences. Views on births in institutions, shifts in practices and knowledge and use of JSY for deliveries within specific caste/class groups will be elicited along with the communities' views and use of dais, their advantages and disadvantages, quality of work, and knowledge. This will help to fix the criteria for assessing popular/competent dais. We will administer a survey schedule to the heads of the family, both women and men (women more for social and birth practices and men more for economic information).

2) **Mapping of Dais and Identifying Popular Dais:** The survey period will be used to cross-check prior exploratory data on the dais and collect further background information about them. For this we will take the help of community members, surveyed households, service providers and the partner organisation in each location.

3) **Survey II – Interviews of Formal Healthcare Providers:** We will interview primary health care functionaries concerned with maternity care (MOs, ANMs), ASHAs and AWWs for their views on birth practices, role of dais and possibilities/problems of coordination with different providers. Their help will also be taken for household listing and records of women delivered in the last 2 years and pregnant women. The providers will be interviewed using open-ended schedules.

4) **Observation of Dais' Interactions and Births:** Observation will be a constant activity starting from this phase and extending throughout the entire field research period. It will focus on watching the dais' interactions with families, community members and other health care providers as well as on observing actual births whenever possible, for the details of the childbirth care process and practices, associated rituals, how complications are handled and support provided other health functionaries and peripheral health institutions.

Phase III*: In-depth Qualitative Exploration for Profiling Dais*

Training in Qualitative Research Methods: In each regional location, an intensive training workshop of 5 days will be held before the work of this phase starts. It will involve not only the local study team (two pairs, each consisting of a research associate and a local field research assistant) but also members of the partner's staff in order to build their long-term local research capacities. We will orient the participants on qualitative research methods, on the birthing process and on common complications. Practice will be given in using research tools, e.g. interview guidelines, check-lists, etc. Guided interviews will be conducted with dais not selected for the study. Emphasis will be laid on listening, observing gestures, recording and not interpreting the dai's statements, and taking care to develop rapport with the dai before starting.

Then the following research activities will be carried out simultaneously:

1) **Interviews with Selected Experienced Dais:** 15 popular and competent practicing dais will have been chosen for in-depth interviewing in each location (a total of 60 dais in the four sites), selected making use of women's perceptions about the quality of a dai's work and her accessibility as articulated in household survey. Within the AYUSH study framework, two preliminary interviews will be conducted, followed by third and fourth in-depth interviews linked more with the ICCHN study focus.

   Two teams of two researchers (SRA + FRA, JRA + FRA) will conduct the detailed interviews with each selected dai. We will study the dai's social and economic background, her process of learning and her experience in attending to birthing women and newborns. We will explore the way dais handle labour and birth, the period over which they help mothers, the way they detect, deal with and understand problems, and when and from whom they seek help or assistance. Detailed interview guidelines and relevant check-lists will be provided to the researchers for this work.

2) **Direct Observations of Births Conducted by Experienced Dais:** With the rapport built with the Dais, we will attempt to directly observe as many births as possible to gain a more accurate assessment of timings of interventions and events, and to watch the interactions between family and providers, family interactions and level of support provided to the pregnant woman.

   In case of complications, the researchers will accept the decision of the dai and family. In case of a conflict she is to record it fully. If the woman is taken to hospital, they would have the option of going with them or following up later.

3) **Interviews with Other Dais:** 15 of the remaining dais will be randomly chosen and interviewed to assess their involvement in services and their competence. This is to assess the degree of difference that prevails between them and the experienced Dais and to measure the loss of skill or the changing social balance that is leading to the loss of their knowledge base and their involvement.

4) **Cross Checking of Key Information:** We will do this with different sections of the community. For example, in cases relating to use of placental stimulation for saving newborns, handling of complicated births and remunerations to the dais.

***Phase IV**: Quantitative Prospective Survey of Birth Outcomes*

A prospective survey of all births, drawing from the pregnant women identified in the sampled households as well as listings from AWW, ASHA, ANM etc., will be conducted for a full one year from the 14th through the 25th month of the research to generate comparative data for various providers on the outcomes of births they conduct and particularly the role of the dais and the institutions in these.

While cross-checking is actually an ongoing research activity relating to all interviews, observations and survey information, over this fourth phase a special concerted effort will be made to cross-check the dais' narratives by going to the concerned households and, where cases were referred to institutions, by talking to formal providers. Case reports of selected incidents and experiences will be developed to highlight key issues.

***Phase V:** Socio-Cultural Dynamics of Birthing Skill and Knowledge Base*

In this phase it is proposed to select one 'village' with experienced dais and study in detail the social basis of birthing skills, knowledge and practice as understood among the different community sections. The village social structure, rooted in the caste, class and gender dynamics, reflecting social differentials as well as giving a certain power to the lower caste dais, will be explored to unravel the dynamics of power and exploitation. The meaning of words, the language used to express processes and the logic behind interventions would be explored to see if a common language for understanding births could be arrived at for enhancing communication between dais and modern practitioners who belong to two different traditions of 'body knowledge', the Asian or ISM and the Western or biomedical. The quality of Dai's interaction with different communities will also be studied to assess their socio-religious constraints and advantages and their commitment to serving the women.

Cross checking and deepening the understanding of the data generated within different sections and communities, of the observations of events around birth, and of the rituals and customs, group discussions and interviews with key informants will be the focus of this phase.

***Phase VI**: Final Analysis, Reporting and Advocacy*

While data-coding and interim analysis will be done throughout the phases, in this phase both the qualitative and quantitative information will be integrated. A final updating of our literature review will be done. The whole process including writing the regional and the comparative sections of the Report will require about six months.

We propose not only to share the findings with the local administrators, policy makers and professionals but also to work with the local partner organisations to enhance their supportive activities towards the systemic inclusion of dais and their positive local traditional practices.

The Report will finally be published as a book and the participant researchers will be encouraged to use the data for writing papers for dissemination.

The phase can be divided into:

- Data compilation and analysis:
  i) profiling of the dais,
  ii) outcomes of birth tracking,
  iii) prevalence of key practices and association with outcomes,
  v) use of placental stimulation to revive a newborn,
  vi) socio-cultural basis of knowledge and skills, and
  vii) convergence points in traditional and modern language/ideas.

- Writing of the Study Report
- Publications:
  i) the Study Report (in English),
  ii) summary reports in Hindi, Marathi and Kannada,
  iii) paper publications for conferences, journals, and
  iv) other dissemination materials.
- Sharing and Dissemination:
  i) with the communities and dais in the partners' local areas,
  ii) with regional authorities (district/state-level programme administration), and
  iii) at the central level (policy-makers, large medical / training institutions)

Research Tools

For recording discussions and interviews, the main method would be note-taking by the field research assistants. Digital voice recorders will be used only for confirmation and corrections. The research team will always take permission from those concerned for note-taking and to use the voice recorder.

The tools that we will employ in this research are:

- Group discussion: Care would be taken to select homogenous groups for discussion in each hamlet or in major caste groups. Separate discussions will be held with women to ensure that they get freedom to speak and express their views. In case of mixed groups, care will be taken to note the non-participants and also the conflicting views.
- Interview: After rapport is generated, the interviews will be open-ended, free-flowing and in-depth. They will be the main tool to build the dais' profiles, to grasp their understandings and knowledge of birthing and to record their experiences. Also, elder community women, younger women who have recently given birth, other key community informants, and health personnel will be interviewed about specific issues through semi-structured interviews.
- Survey: This method will be used for assessing socio-economic and cultural background of the households, the range of birthing practices, the providers' views, and for a one year prospective study of births and their outcomes with relation to providers and place of birth.
- Observation: Direct observation will be used as a key instrument for data collection and cross-checking the process details of births, customs and interrelations.
- Case Report and Case Study: Cases of complicated childbirth, placental stimulation (as neonatal resuscitation), and reported positive and negative experiences with institutions and dais will be either developed into case reports which may be further investigated to develop case studies. The different actors involved in the process will be drawn upon to develop the latter through triangulation.
- Use of Recorded Data: The existing records of PHC, ANMs, AWCs and ASHAs as well as village records will be accessed wherever needed.

Outcomes of the Study

At the end of this investigation, we expect the study to provide:

1. A portrait of dais practicing today in four diverse locations, with both commonalities and diversities of caste, culture, work patterns and modernisation impacts.
2. A baseline listing of the traditional childbirth and post-partum techniques practiced by experienced dais from onset of labour through first week after birth.
3. A tentative classification of helpful and harmful practices, with preliminary findings of prevalence and associated outcomes for identified 'key practices'.

4. A detailed documentation of what experienced dais do to revive a distressed newborn, focusing on placental stimulation with details of timing and technique.
5. An account of dais' interactions with the health system (also with private practitioners, voluntary institutions and other healers) and comparative experiences of birth with Dais and in Institutions.
6. An evaluation of the dai-training experience from dais' viewpoint, helpful for improving the model for both TBA and SBA training.
7. A review of literature and expert opinions especially to throw light on the possible physiological mechanism of placental stimulation in newborn resuscitation.
8. A presentation on the epistemological issues linked with the dais' worldview, mapping the indigenous 'body knowledge' framework that underlies dais' practice.

We aim towards a clear mapping of the indigenous conceptual framework and context of body knowledge underlying the dais' practices in each area. The generation of baseline data should be useful in developing a common language for dialogue between the indigenous system and bio-medically oriented medical personnel, programmes and policies at all levels.

The significant findings of the research will be communicated in the third year through appropriate **publications** and **dissemination** of the final report.

Policy Implications

Keeping in focus the social context, the felt needs of women, scarcity of formal services and the outcomes of traditional techniques, the data derived in this study will create a new knowledge base that includes the causal linkages and explanatory frameworks of indigenous modalities. We expect this will provide pointers towards how to effectively involve dais in the formal childbirth care system. This could be at the level of:

a) Building bridges between the knowledge and skill base of dais and the primary health service providers by helping to develop a new language of communication between the modern and traditional practioners.

b) Encouraging dais' to help with ANC (ante-natal care) and safe home deliveries as partners with the primary providers. Linkage of dais with the PHC (post-natal care) system will contribute both to reducing the workload and to supporting safe, culturally congruent home birth services.

c) Giving an active role to dais in providing safe childbirth care, likewise ANC and PNC, as partners with the primary providers, both to distribute the workloads and to provide appropriate community-based maternity and neonatal services.

d) Improving the referral system with dais' help, with their recognition at institutions.

e) Improving not only dai-training programs but also the education of the other health professionals who deal with women in childbirth.

f) Introducing creative alternatives in health policy, training of trainers and provisioning programmes, such as a strong antenatal, natal and postnatal care system.

g) Considering regional specificities to enhance equity in essential health services, provisioning for the marginalised.

Ethical Concerns and Ethical Review Committee

The areas of concern are:

1. Research permission from the study population both at village and individual level. In asking for direct observation of any birth, consent is required not only from the dai but also from the woman and family whose birth is to be observed.

2. In case of any complication, given the fact that the researchers lack medical expertise, the dilemma is whether they should intervene to offer advice or help.

   We have decided that the researcher will follow the decision of the dai and the family. In case of a difference between dai and family, or if the woman is taken to hospital, the researcher has the option to stop her formal observations although she may continue to record the events that follow afterwards.

3. Separate collaboration statements ("MoUs") developed jointly with all partners (the four regional Partners, CWDS and ICCHN) will be honoured by the Jeeva team.
4. Sharing of the study findings, beginning with the dais, their local communities and health care providers in the Partners' work area, then extending to dissemination at the respective district/regional level and the national level.

The practical requirements will be:

- A three or four member Ethics Committee to oversee the project,
- Consent forms from respondents for voice recording, photos, interviews and surveys and the researchers' presence at births,
- A protocol in case of obvious risk/complication in mother or newborn.
- A guideline for ethical reporting and confidentiality in case studies, with changing of names (using a list of alternate local names)
- A sharing plan that starts with / in the local communities, and
- Signed collaboration statements with all the partners.

The Ethical Review Committee is to be formed before the Team Orientation begins.

Developing the Project Support Systems

To implement the project, a number of support systems are being worked out, including two central bases (Delhi, Pune) and four regional team bases through the Partners (Bellary, Bokaro, Mandi, Nandurbar), with resource linkages, team procedures and training, supervision and monitoring, multi-lingual translation and data management.

The administrative base for the study, including financial management, will be at Delhi by the Centre for Women's Development Studies (CWDS). This is in continuation of the role that CWDS has played throughout the Jeeva Bridge Period (July 2009 – September 2010). CWDS has also dedicated a Faculty member (BR) part-time for the research project. She will anchor the quantitative data management at CWDS, Delhi, under the guidance of three of the Investigators (IQ, LCV and MS). In view of this institution's role in the Jeeva project and it's standing in the field of women's studies since the 1980s, institutional support of 10%, plus support for the faculty member and a data-entry person, and one computer for use at CWDS, are provided in the Budget (see Annexure 3).

According to an understanding reached at a consultation between the Jeeva Shepherds and the ICICI Centre for Child Health and Nutrition held at Pune on 18th June 2010, the base for qualitative data collation and management will be at ICCHN in Pune. ICCHN has recently appointed a person (DD), whom Jeeva views as 'Senior Research Fellow', to participate fully in the project. In addition to looking after the qualitative data management, she is to follow the field research activity at all four sites and particularly to assist in supervision and monitoring in the Jharkhand site. A Resource Person from the Jeeva central team based in Pune (LR) will visit ICCHN on a regular basis to guide the qualitative data management. The Principal Investigator (MS) and other Investigators (IQ, JC, LCV, etc.) would visit ICCHN semi-regularly and as required. In support of this activity, ICCHN would lend office space with a computer.

The four regional Partners are gearing up to provide full support to each of the regional Study teams, including local facilitation with officials and in the study villages, provision of stay

and workspace accommodation, help with translations (regional language to English) and so on according to collaboration agreements (MoUs) signed with the Jeeva Project and CWDS. The Partners are remunerated in consideration of their role and also against expenses. They directly employ the field research assistants (FRAs) and link persons (LPs) in the teams.

Structure of the Whole "Jeeva Study Team"

In view of two institutional bases (CWDS, ICCHN) and four regional sites in the four states, the whole team structure is a bit complex. To understand it better, please refer to the chart given in Annexure 7. Alongside Jeeva, both CWDS and ICCHN will contribute human resources into the team. The Principal Investigator (MS) is supported by the group of Shepherd Investigators (IQ, JC, LB, LCV, AS) on one side and the Project Coordinator (SG) on the other. An Administrative Facilitator (tentatively selected), who reports to the PC and PI, will look after all routine administrative and interface issues between Jeeva and CWDS, ICCHN, AYUSH, the Partners, individual Resource Persons and the Regional Teams in the four sites.

Four 'Mentors' (MS, SG, LB, LR) respectively will look after guidance and supervision / monitoring issues in the sites in Nandurbar, Mandi, Bokaro and Bellary in support of the regional study teams and will coordinate with the respective Partners. The several Resource Persons will support the overall project with their various inputs in the areas of Public Health, Ethnography, Maternity Services, Ayurveda and Bio-Medicine.

Project Guidelines, including Monitoring and Review Procedure

Given the diverse geographical spread of this research project, a variety of issues could arise to raise challenges from time to time. Processes are being designed and put in place to best address all possibilities. A special and common guide/document will be prepared for reference of all concerned in implementation of the project, to be called the Project Guidelines. It will encompass technical and ethical aspects of the research as well as the administrative concerns at both inter-regional and regional levels. It would include:

(a) a system of regular Regional Team meetings including the respective Mentors to review experiences, methods and findings, and

(b) a Steering and Monitoring Board, comprising a suitable mix of external members (i.e. Ethics Committee) and internal members (3 Shepherds) to consider regional and team differences and ethical issues arising throughout the project.

The Project Guidelines will be available for ready reference to all in the project.

Data Handling and Authorship

Clarification of terms of data use is as follows:

> As creator of the data base, the Jeeva Team will provide to ICCHN the full set of raw data that is collected. Any member of ICCHN may use the data for publication provided that the paper is shared with the Jeeva Shepherds in advance, so as to be assured that the data is used in the study's context and conceptual framework, and that they acquire written permission from the Shepherds for publishing the paper.

Regarding the issue of 'authorship', the following has been decided:

> Authorship (credit for writing a paper and acknowledgment of work) will be decided on a case-to-case basis in tune with the collaborative spirit of the project according to standard principles for reporting research findings. All authorship will acknowledge all those directly involved in the study – research team members, regional partners and the respective communities / individuals (dais, others) in the study areas.

Literature Review

Review of relevant literature in support of the Jeeva Project started more than three years ago. Various persons have contributed to this effort. The current partially updated review is given as Annexure 8. So far our review looks into the following aspects: historical roots; documentation about dais, their skills, knowledge and cultural rootedness; woman's body and birthing; the relationship of newborn and placenta; marginalisation of culture in health governance; the evidence base for traditional childbirth practices; placental stimulation to revive a newborn; bio-physiology of the placenta; and new evidence in support of TBAs and dais.

The renewed review activity will carry on simultaneously with the field research, according to a plan that will be reconsidered at yearly intervals, in order to strengthen the research analysis. Shepherds and other friends will participate in it.

Looking Forward

The Jeeva Shepherds and CWDS submit this Proposal and Annexures to ICCHN with confidence springing from the positive relationship developed in the exploratory Bridge Period and with the hope of fulfilling through this Study the challenging aims of the Jeeva Project.