Background
The Nord region is the site of the original Mossi Kingdoms. Ouahigouya, the capital of Yatenga Province, is the third largest city in Burkina Faso. The 2014 population is 1,461,430. The Mossi are the principal ethnic group and Mossi is the dominant language. The Nord and Centre Nord regions are outlined in purple in the map.

Research studies
A baseline survey and baseline qualitative research (on all maternal, neonatal and child health –MNCH– health issues) was carried out in 2011 to gather data on knowledge and preventive and curative behaviours of relevance to child health. A quantitative baseline survey was administered in all of DMI’s intervention and control areas to a sample of about 5,000 women. Baseline qualitative research through focus groups, individual interviews, and key informants was conducted in all DMI’s intervention areas: this included 163 women (84 grandmothers; 79 mothers) and 149 men (68 grandfathers; 81 fathers), as well as key informants (district medical officers, health centre staff, community health workers, pharmacy manager, village chiefs, and traditional health practitioners). Please note, this research focused on all child health issues not just breastfeeding.

Other research activities in Ouahigouya included:

- one round of pretesting of breastfeeding spots (6/2012): focus groups were held with 27 fathers and 32 mothers in two villages (Cissin; Peela)
- one round of formative research (1/2012), focusing on complementary feeding and maternal health: 19 mothers and 17 fathers (villages: Kononga, Yabonsgo)
- two rounds of feedback research (11/2012; 6/2013), focusing on message retention and appreciation, barriers and facilitators of behaviour change: 72 mothers and 71 fathers (villages: Bagayalgo, Bembela, Bouri, Koura Bagré).

Key Findings

**BASELINE SURVEY**
Our baseline survey was conducted between December 2011 and February 2012 (by the London School of Hygiene and Tropical Medicine and Centre Muraz), before the media intervention was launched. In total 5,000 mothers of a child under 5 years were interviewed about maternal and child health behaviours, from several regions across Burkina Faso, so our data provides a representative sample of mothers throughout the country. For the Nord region, we have grouped the data of Ouahigouya (one of our intervention zones) and Kongoussi (a control in the Centre Nord region):
Demographic information

In Ouahigouya 98% of the population sampled were of Mossi ethnicity and in Kongoussi 84% were Mossi. Women interviewed in the baseline survey were on average aged 29 years. In Ouahigouya 98.6% and in Kongoussi 97.2% of women were married. The mean number of children aged under 5 years living with the women interviewed was 1.4 in both Ouahigouya and Kongoussi.

Initiation of breastfeeding

Breastfeeding duration

Exclusive breastfeeding in infants under 6 months
Most newborns receive colostrum. About 50% of infants between 0-6 months are exclusively breastfed in Ouahigouya, comparable to the 25% found nationally during the 2010 DHS.

**QUALITATIVE FINDINGS**

**Breastfeeding Initiation**

Three quarters of new-borns are put to their mother’s breast within 24 hours after delivery and are fed colostrum. Most women who give birth in a health facility will start breastfeeding soon after birth. Still, a quarter of newborns may not have received the benefits of colostrum.

A lack of knowledge about what colostrum is, as well as the persistence of traditional beliefs, constitute the greatest barriers to giving colostrum. The entourage of a woman who has given birth has significant influence on feeding practices. Older women (mother-in-law, grandmother, aunt, co-wife) may put pressure to express colostrum, arguing that colostrum, the first milk, is dirty and ‘bitter milk’ (*biinsko toogo*). A young woman especially would find it hard to go against the will of these older women who assist her during and after childbirth and have greater social status within the family.

In the past, while a mother would express the first milk, the new-born would be breastfed the ‘lighter’ breast milk of a co-wife. Expressing the first milk is a painful process: while older women did not bring this up, young women do and thus welcome arguments that support them in avoiding this ‘operation.’ Men in a focus group in Bembla said that nowadays mothers do give the first milk to their babies, because this tradition has faded away, with new information on breastfeeding disseminated by radio and health agents. Mothers and fathers are now much more aware of the health benefits colostrum provides new-borns.

While the debate about the benefits of giving colostrum is not completely finished, most women are now in favour of feeding a new-born the first milk. In our focus groups in Bagayolgo, a 27-year-old woman said they discard the first milk after expression, but most other participants disagreed and said they do give colostrum, because “it is like vitamins,” “it helps the new-born to fight against illness” and “it gives strength and health.” The stimulus for giving colostrum is helped by the fact that more women deliver babies at health centres, where breastfeeding is encouraged as soon as possible after birth, and is further reinforced by radio spots.

Health workers and radio are considered highly reliable and trusted sources of health information. Both women and men point out that radio messaging has helped: “Now everyone has heard on the radio that first milk is good for new-borns” and elderly women have understood that “first milk is not dirty” (47-year-old father).
Exclusive breastfeeding

Exclusive breastfeeding is not (yet) the norm: "We give water starting at one month. When we go into the bush, we give water to a crying baby to calm him. When a mother doesn’t have a lot of milk, we give water and the child will begin to eat solid foods before 6 months are over" (female focus group, Sim village).

Many women introduce other liquids before 6 months, for various reasons. Again under the influence of elderly women in one’s entourage, mothers will give tisanes, herbal decoctions, because they believe these are necessary to secure good health and strengthen new-borns. This happens more often to young mothers with their first pregnancy; these new mothers have less experience with baby-care and trust their elders. Usually it is grandmothers who take on this role in the family: they will feed special, home-brewed decoctions to new-borns, sometimes force-feeding them. The elderly women will also bathe or wash the new-borns with traditional decoctions, all in the belief that this will increase the baby’s vigour. It is also done when a young infant is ill, as a type of cure, which can aggravate the illness.

Most women understand what ‘exclusive breastfeeding’ means; the cut-off date of 6 months is disseminated widely, through health centre sensitisation and radio messages. But despite the knowledge of what it is, many do not believe it is possible to do this and feel they need to add liquids. The most common addition is water. People lean on several arguments for giving water. A common one is that babies need water to quench thirst, especially with the hot climate of Burkina Faso. If one does not give water, the baby’s throat might dry up. Taking themselves as examples, people believe that only water, and not breast milk, has the ability to quench thirst:

“I give my (4-month-old) baby water when I come back from the bush at noon. I think it’s not normal that I should drink because I’m thirsty and that I wouldn’t give my baby water to drink.” (Young mother, Bembla)

Such statements are very common: why would someone deny an infant a liquid that they themselves believe they truly need?

The belief that breast milk does not quench thirst is tied to people’s interpretation of this milk. People believe breast milk is too fatty to really quench one’s thirst:

“For a Mossi to accept only giving breast milk to a baby for the first 6 months is not easy because he will say that the milk is too fat and the baby risks falling ill (if it does not drink water also).” (34-year-old father, Bembla)

Another potential barrier for exclusive breastfeeding is (a perception of) insufficient breast milk. If mothers believe they do not have enough breast milk, they will introduce other liquids and additional solid foods to the baby’s diet, before the baby reaches the age of 6 months. Usually the first solid foods are a type of cereal-based porridge.

The organization of female labour may also complicate exclusive breastfeeding: women are responsible for much of the agricultural and household work. In order to carry out all this work, mothers may leave young infants with other female caretakers, usually grandmothers, co-wives or older women. While very young infants are normally carried on the back and basically stay with the mother 24 hours per day (and can be breast fed at will), older infants may be left with other women. To satisfy or placate such a baby, when he/she cries or appears
hungry, these caretakers may give other liquids or foods, more so if they are older women who are prone to adhere to traditional ways.

Practical examples – of mothers who have successfully and exclusively breastfed their babies – are very strong stimuli for positive behaviour change. It provides women with real-world models which demonstrate that exclusive breastfeeding is possible and a superior strategy. Radio messaging strengthens these real-world examples. A 32-year-old mother of four from Bagayalgo said she now practices exclusive breastfeeding, but did not in the past: “It's the radio that taught me that (exclusive breastfeeding) protects the child against illness.”

Communication and Key Influencers

A mother who has a new-born, and especially one who has her first child, will be assisted and counselled by older women in her entourage: her mother-in-law, grandmother-in-law, co-wives, her mother, or aunts, all can play a key role in providing her with breastfeeding advice. Older women adhere more to tradition and will push for traditional practices: herbal decoctions and baths to strengthen a new-born, teas to stimulate a baby’s appetite, or the commonly held belief that a baby needs water besides breast milk in the region’s hot climate. Fathers and male elders are equally important, as they represent authority in a household.

The fact that more and more women do antenatal care visits, deliver at a health centre, and go to monthly weighings of new-borns (to check physical development) help to spread the benefits of breastfeeding. During all these encounters, health agents can sensitise women (and their entourage who often accompanies new mothers). Our research found that health agents are considered very trustworthy sources of information. Radio is the other main trustworthy source.

Radio messages around breastfeeding not only augment and amplify information on breastfeeding; they can model positive behaviors with concrete, realistic examples. What radio also does is reach out to people who may not have been directly sensitised by health centre staff, such as men or older women. By reaching these key players, radio strengthens and confirms what many women have already heard and told their husbands and elders. Now these key influencers hear the message from another, trustworthy source.

Conclusions

While the debate about the benefits around colostrum appears to be settled in favour of ensuring a new-born gets the first milk, exclusive breastfeeding until 6 months is hampered by persistent beliefs about breast milk itself, about what is needed in a hot climate, and traditional health practices. Water is seen as the only way to fully quench thirst, and breast milk cannot do this because of its perceived ‘fatty’ nature. The force of tradition (in contexts where modern health services are relatively recent) continues to pit herbal treatments and decoctions against the ‘imported’ practice of exclusive breastfeeding. With a growing experience of healthy, exclusively-breastfed babies – successes reinforced by increasing health service access and intensive radio messaging – more mothers will adhere to the new practice and will be supported by their entourage.