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## CAN POSITIVE INQUIRY STRENGTHEN OBSTETRIC REFERRAL SYSTEMS IN CAMBODIA?

### ABSTRACT

Maternal death remains high in low resource settings. Current literature on obstetric referral that sets out to tackle maternal death tends to focus on problematization. We took an alternative approach and rather asked what works in contemporary obstetric referral in a low income setting to find out if positive inquiry could generate original insights on referral that could be transformative. We documented and analysed instances of successful referral in a rural province of Cambodia that took place within the last year. Thirty women, their families, healthcare staff and community volunteers were purposively sampled for in-depth interviews, conducted using an appreciative inquiry lens. We found that referral at its best is an active partnership between families, community and clinicians that co-constructs care for labouring women during referral and delivery. Given the short time frame of the project we cannot conclude if this new understanding was transformative. However, we can show that acknowledging positive resources within contemporary referral systems enables health system stakeholders to widen their understanding of the kinds of resources that are available to them to direct and implement constructive change for maternal health.

### INTRODUCTION

The contribution of the social sciences to health system strengthening has been overwhelmingly based on a deficit model (Morgan and Zigli 2007). A major influence is the prevailing gap paradigm in international health and development, which proposes that a country or locality has “problems”, which they are unable to overcome by themselves. Problems exist with “needs” - the need for solutions - in the shape of development policies, programmes and expatriate workers (McNally 2002). This approach has undoubtedly brought attention to outstanding public health failures, such as the staggering difference in maternal mortality between rich and poor countries.<sup>1</sup> We also acknowledge the importance of problematization generally for social sciences. Problematization is a critical tool that enables extant power hierarchies to be questioned and has been a significant tool in the empowerment of excluded groups such as women. Yet both of these analytical approaches have tended to ignore positive, in the sense of constructive, resources within a locality. At a time when greater attention is now being paid to financial sustainability, a deficit approach may be overly restrictive for achieving strong health systems. Additional approaches are required. This paper reports on an appreciative inquiry into contemporary obstetric referral in Cambodia in order to explore whether positive inquiry has potential to identify transformative health system strengthening actions within a low income setting.

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<sup>1</sup> UNICEF <http://www.unicef.org/mdg/maternal.html> accessed 8.5.16:09.40.

Appreciative Inquiry (AI) is one of a number of strength-based approaches that has been used to manage change across a variety of organisational settings. In social and healthcare, for instance, AI has been used to empower marginalised women (Duncan and Ridley-Duff 2014); reorientate healthcare policy for the elderly (McKeown, Fortune et al. 2015); and change enculturated attitudes in mental health (Fieldhouse and Onyett 2012). AI starts by reframing any inquiry towards the positive, that is, towards what members want an organisation to be rather than what is it currently not. Individuals within the organisation are then encouraged to identify “what gives (them) life”, that is to say, what activities give joy, or pride, or meaning to their organisational lives (Zandee and Cooperrider 2008). When individuals behave in ways that ‘give life’, AI assumes that an organisation will operate at its best. It is important to note here that the ‘best’ might be different from an organisation’s overt mission, that is, leadership may be attempting to take an organisation in a direction that conflicts with the group’s implicit values<sup>2</sup>. In essence, AI attempts to make life giving behaviours, values and attitudes explicit: by acknowledging their existence through storytelling and their value through intra-organisational discussion. When leadership and colleagues within a group acknowledge and value the best of now, organisations can change because individuals spontaneously and voluntarily do more of that they do best (Bushe and Kassam 2005). Proponents of AI argue that such change can be transformational because the possibilities for change are explored beyond the boundaries of any problems that are being experienced (Richer, Ritchie et al. 2009). However, AI is transformative only when it is able to generate “new ideas, images, theories and models that liberate our collective aspirations, alter the social construction of reality and, in the process, make available decisions and actions that were not available or did not occur to us before” (Bushe 2010:22). A caveat is that many of factors for usual organisational change - such as committed and credible leadership, constructive conflict resolution and functional communications - remain important (ibid.). Uniquely though, AI assumes that no new money or materials are required, rather the organisation’s perception of what its resources actually are, along with the way those resources are managed, change.

In AI, the first action is to set the direction of inquiry. In our case, the direction was partly set in collaboration with the Ministry of Health (MOH) who proposed a focus on maternal health and the Operational District (OD) system. Maternal health, a longstanding priority for the Cambodian government, has improved with declining mortality rates in evidence (MoP/MoH 2014) although overall mortality is still relatively high (Figure 1).

INSERT FIGURE 1

The MOH now focus on the growing disparities in mortality rates between urban and rural areas, linked to weaknesses in the obstetric referral system. Health infrastructures are now widely in place that should ensure community access to local and higher level facilities through the operational district (OD) system throughout the country. An OD consists of health centres (HC), providing antenatal care (ANC), normal birth delivery and post-natal care (PNC); together with one District Referral Hospital (DRH) that provides gynaeco-obstetric services. Cases can be referred further to a Provincial Referral Hospital (PRH) or a National Referral Hospital (NRH). A national evaluation in 2008 concluded that the referral

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<sup>2</sup> See example at Stevenson, H “AI: Tapping into the River of Positive Possibilities” <http://www.clevelandconsultinggroup.com/articles/appreciative-inquiry.php> accessed 8.5.16:10.16

system then in place was not working (Health 2009) and revised referral procedures were included in the 2010 “Safe Motherhood Clinical Management Protocols” (MoH 2010). No subsequent evaluation has taken place but “weak communication and referral... including inadequate linkages between communities and health facilities” have been reported (2011) and quality of care remains a challenge, such that many Cambodians opt to take up care in the private sector (Annear 2015, Annear, Grundy et al. 2015).

We looked at what works in contemporary obstetric referral in rural Cambodia to ask two main questions. First, could positive inquiry generate original insights on obstetric referral in the Cambodian public health system and second, were there any indications that such inquiry could be transformative. To identify ‘transformative’, we looked for insights that showed a change in thinking on the part of the interviewees.

The rest of the paper is set out as follows. First, we detail our method before reporting on results from the interview data set that we collected, and thereafter discussing these results against the research questions.

## METHODS

AI is often described in phases (see Figure 2). In the Discover phase, participatory interviewing is used to evoke a narrative of “what gives life” (Zandee and Cooperrider 2008) through positive questioning. This leads into a Dream phase in which interviewees envision a future in which current peak experiences become the norm. Thereafter, interviewees Design a way to achieve the new future and Do it (Richer, Ritchie et al. 2009). Our research did not proceed to the Design and Do stages. We adapted AI for a conventional interview format rather than pursue a participatory approach in which all research participants interview each other. Interviewees describe the positive from their own point of view (what was seen as positive from the point of view of participants in a referral system). We recognise that what our interviewees saw as positive may not be considered safe from a clinical perspective. Interviewees were given space to talk about negative aspects but these were not pursued in discussion or analysis by the interviewer. The intentional positive bias (Tan and Wang 2013) has led to a critique that AI ignores problems (see review in Grant and Humphries 2006:404). However, the Dream phase gives interviewees an opportunity to solve problems they perceive in current practice. The research team was new to AI so an external consultant, experienced in both AI and academic research, was retained to provide initial training in the use of AI for interviews as well as advice and guidance on AI process during the pilot and main fieldwork.

## INSERT FIGURE 2

We initially used the term “obstetric referral” to mean any movement of a labouring woman from home to and through the health system and back home again. However, to clinical staff the term meant any transfer when clinicians were involved. We therefore changed our terminology to “delivery journeys” so that the term remained open and to ensure that getting back home was also included. This last stage is often ignored in Three Delays model since the model charts a one-way journey from home to facility. Twelve journey variants that took place between November 2013- 2014 were recorded (see Table 1).

We purposively sampled women and community members who had experienced referral, and prioritised cases of emergency referral. Women were sampled through health system records; HCs and DHs were selected in discussion with the OD manager; and community and family members through snowballing. An information sheet (text and picture based, since we were aware that literacy would be low for some participants) explaining the project purpose was discussed with, and given to, participants. Informed consent was recorded at the beginning of interviews. All interviews were conducted and recorded by the Cambodian research partner in Khmer language. Ethics approval for this research was gained from the University Research Ethics Committee, UK and the National Ethics Committee for Health Research, Cambodia.

We developed a questionnaire based on AI and the concept of a delivery journey for a pilot. During the pilot, the field team found it difficult to move between discovery of what is working now and the dream, and to draw out interviewees on their dream. We revised the questionnaire to take account of this for the main fieldwork, conducted in November 2014. Women were asked to talk about their most recent delivery; health staff were asked to select an emergency case that they had participated in within the last year; and health volunteers were asked to select one case from the emergencies that they had participated in - if none, they were asked to select one case from all the cases they had participated in. Interviewees were then invited to describe what happened and identify positive highlights of that experience across the different journey stages; to identify why they thought these highlights had occurred; what they would like to see continue; and what they would like future delivery journeys to look like. The word 'positive' is difficult to translate in Khmer - during fieldwork other words such as 'like', 'satisfied with', 'happy with' were used to mean 'positive'. The meaning of the word positive was ultimately left open to interviewee interpretation – for example, we did not require interviewees to tell stories of maternal survival.

Thirty interviews were conducted with 11 women; 5 family members; 5 Village Health Support Group volunteers (VHSG)/Village Leaders (VL); 6 midwives; and 3 doctors. Twenty-one emergency and 11 normal referrals were recorded (see Table 1). Initially, we assumed that any referral meant that the delivery was an immediate and life critical emergency. However, clinical staff participating in our study differentiated between critical (emergency) and non-critical (normal) referral. We retain this distinction in the paper.

#### INSERT TABLE 1

All interviews were transcribed and each transcription was checked by the researcher who had conducted the interview. Twelve transcripts were translated to allow the UK research team to discuss findings and for quality assurance purposes. An analytical framework was created by combining the stages of a delivery journey and the interview structure. Codes were derived from line by line reading of transcripts, and entered into the framework to derive themes. Reflective interviews between team members during fieldwork and analysis was used to improve research process. Research process and interim results were discussed in monthly team meetings using an action learning approach so that we could deepen our understanding of the data and improve the quality of our work (all tools available at [www...](http://www...)). Interim analysis was fed back to interviewees in a later workshop that also allowed deeper exploration of the Dream.

This study took place in three ODs of Prey Veng province. Prey Veng was chosen because at project inception (in 2013) it displayed typical rural indicators - average maternal mortality

and socio economic status - and operated more than three ODs. The ID Poor Program (in which government pay health costs for those with a poor card through the Health Equity Fund) operated in two out of the three study ODs.

### Limitations

Some general limitations should be borne in mind while reading the results that follow. Our analysis is based on 30 interviews. During interviews, it was often challenging to move respondents from considering what was working now into the dream phase, to reimagine what referral would be like if it always worked at its best. This was most challenging in women and family respondents. This may have been due to the inexperience of the research team in AI or that longer term methods are needed to encourage low income groups to envision a future that is different from the present. Overall, we cannot say how extensive the positive behaviours highlighted are in the province or country, nor how systematically they are reproduced by the individuals interviewed. Prey Veng has a high public facility birth rate and is accessible to the national hospitals, which may partly account for the density of positive stories. Different results may be found in distant and inaccessible provinces such as Ratanakiri and Mondulakiri or other provinces with high maternal mortality or low facility delivery. Last, we did not look at referral between public and private sector, which is an important gap since the private sector is often the first clinical care contact in low resource settings.

## RESULTS

We report results from our thematic analysis using interview excerpts. This can lead to a fragmented sense of the overall results. So, we first detail three different delivery journeys, one from each category of stakeholder (woman, clinical staff, other) that highlights a positive aspect of current practice. These narratives are important in themselves because individual tracking is one way to understand when referral is successful (Macintyre K and Hotchkiss D 1999) but remains under documented (Hussein, Kanguru et al. 2012). Thereafter we present our interview results by analytical theme in each of the discovery and dream phase.

### Narratives

Case study one is an account of a post-partum haemorrhage as told by a DRH director and highlights the importance of strong oversight and management of a critical emergency. A woman was referred from HC to DRH due to severe post-partum hemorrhage. The director was not involved in the emergency treatment of the woman but coordinated the communication and staffing to enable treatment. The woman delivered vaginally but suffered severe blood loss (attributed to tearing by an unforeseen high weight baby). The tears could not be stitched by HC midwives so they used compresses to slow the bleeding and immediately called for the DRH ambulance. The ambulance could not reach the HC as the road was flooded and damaged due to heavy rain. Since it was common for the area to be flooded in the rainy season, the DRH director telephoned the HC manager who agreed to find a boat to transport the woman to a point that the ambulance could access. In the meantime, the DRH director organized two midwives and emergency obstetric kits to travel with the ambulance so that the woman would have access to immediate, basic life-saving actions. A few family members also accompanied the woman on the ambulance and later took care of the newborn. After arriving at the DRH, healthcare staff (interviewees to refer to healthcare

workers in general that did not distinguish cadre) examined the woman, conducted an ultrasound scan, and arranged for a blood transfusion. Since the woman came with aged relatives, they were not asked by staff to donate blood, rather blood was taken from the National Blood Transfusion Center in Phnom Penh (free of charge for the family). The director did not follow the case further though believes no further problems arose as none were reported to the DRH by the HC through ad-hoc telephone calls or regular OD meetings.

Case study two is of a normal referral as told by a pregnant woman and highlights the critical role of family. The woman expected a HC delivery and on advice of the HC midwife, prepared her bag in advance. Her contractions started around 5:30pm. At 8am the next day, her mother decided she should go to the HC. Her husband drove her there by motorbike, with one elder brother. At the HC, the (only) staff on duty examined her and advised her to keep walking and eating until her waters broke. By midnight, she had not delivered and her husband and family stayed overnight at HC whilst her elder sister brought meals from home for them all. The following day, the midwife examined the woman and said she was still not dilated – this caused her mother to worry and request a referral letter from HC to go to the DRH. At the DRH, health staff were on standby and took her to the delivery room, with five other staff. They examined her and advised that she was 2cm dilated and that she should continue to walk and eat. Many relatives visited her but returned home except for her parents and husband who stayed with her overnight. Her sister cooked and her brother brought meals for them to the DRH. Her family comforted her during labour. By 4:00am on the fourth day she was dilated enough to enter the delivery room with her mother. She delivered at 5.30am and stayed one further night at the DRH. Many relatives visited her there and her mother stayed close to assist her with toileting, eating and baby care. Her husband ran errands for her and took her home. Her mother, husband and sister stayed with her at home to cook, undertake chores and care for the child. Many relatives and neighbours visited her at home.

Case study three is of a local delivery at a HC as told by a VHSG. It highlights how community health volunteers are integral part of successful referral. The delivery took place at a HC after prolonged labour. The contraction started at 5:00pm at the family called on the volunteer to accompany them to the HC. The husband drove the woman, while the volunteer used her motorbike to take the mother-in-law, an aunt and the delivery bag. On the way to HC, the family stopped at the home of another HC staff to request her assistance, together with one healthcare staff on standby at the HC. The standby staff came out to welcome the family and turned on the lamp but since it was not yet time to deliver, she continued her dinner. During the wait, the volunteer entertained the woman and her family by telling jokes and acting funny to reduce the tension. At 11:00pm, the waters broke and staff examined the woman and said the cervix was fully dilated, so the healthcare worker started to assist the delivery. Present in the delivery room were the two staff, the volunteer, the mother-in-law, and aunt. One massaged the woman's tummy and guided her on pushing, another prepared to catch the baby. The mother-in-law and the aunt each held a knee of the labouring woman and the volunteer placed the woman's head on her thighs. The volunteer verbally encouraged the woman to push and not give up. The pushing stage lasted for almost two hours before the baby was born. After delivery, the woman had bleeding so one staff set up an IV drip. Sometime later, the woman couldn't urinate and was bloated. One staff assisted her urination and she returned to normal. She was discharged from the HC the following morning. The volunteer (who had gone home) returned to help carry the delivery bag and drive the family home.

## Thematic Analysis

All but two of the delivery journeys resulted in a living mother and child and all 30 respondents were satisfied with their selected delivery journey for various reasons. Thematic analysis identified 80 aspects that were provided to explain why the 30 selected delivery journey were satisfactory/considered positive to respondents (see Table 2). Some aspects retained significance throughout a journey. “Care and assistance from family and community” was highlighted at all stages except at PRH/NH; “successful delivery and emergency treatment” dominated HC and DRH stages while “quick referral action” was only noted at the home/HC stage. “Caring and hard-working attitudes of health staff” were highly appreciated at all hospitals and a “well-equipped health facility” was raised for all health facilities. Responses were received across interviewee categories. For instance, on ‘prompt care and assistance from family and community’,

“... [the mother] came to HC when seeing bleeding. The mother knew that there was something wrong with her daughter.” (HC midwife)

“...*the presence of my husband...* (it) is more comfortable than asking mother or sister ... I want my husband to comfort me verbally ...*(in)* such a difficult situation.” (Woman)

“...helping each other. Helping the people is like helping the country... *the* community does not give me any money, but I help all.” (VHSG)

Interviewees chose to recount stories in which delivery was difficult but the mother survived – they were proud, and relieved, at the outcome:

“...happy that she could deliver... “crossing the four-faces river” *means delivering the baby...* when we reach the end of the river, we are happy.” (Aunt)

“...happy because post-partum hemorrhage is very common and most *dangerous...the patient could die within two hours, if we don't pay attention.*” (DRH midwife)

“...the woman was having seizures when she arrived here, but we could save *both the mother and the baby.*” (PRH midwife)

Families valued the attitude and behavior of staff, especially polite, friendly attention along with amusing stories to relieve tension:

“...[Staff] spoke politely to us ... I could not walk because I had C-section, so they told me to try to walk and move my body. They told jokes to entertain a *child of the patient nearby, and we all laughed.*” (Woman)

“...when they say something friendly... *female staff told us not to worry because we already arrived at her place and just try to eat a lot. So, I did not [worry].*” (Woman)

Instances of systematic and shared communication between the initiating and receiving facility and within clinical teams to learn lesson from their own experience was valued by clinical staff.

“...happy about communication from HC. If all HC managers could do so, I can fulfil my responsibilities, and be successful... If [PRH] can get prior notice, we



can prepare all arrangements... *birth delivery patients can die very quickly. So, the emergency treatment needs to be quick.*” (PRH midwife)

“good because we could disseminate during the OD meeting. We raised [the case] for discussion on how HC can refer the women quickly. We talked about *the reasons... (and) change our practice as a result of the discussion on this case.*” (DRH doctor)

Cooperation extended to the woman’s family.

“*What I like the most is the good cooperation from her family. They did not use harsh language to us... they cooperated with us very well. For example, we told them to do something, they followed us. For everything, we need cooperation from the women and their families to succeed. We can’t do it alone.*” (DRH midwife)

“*two family members who came to report back the result to me also felt happy. They were not angry with us or felt that we are weak and could not do anything. They did not think like that.*” (HC manager)

The main delivery-associated costs were transportation, food, and medical fees. To reduce food costs, relatives brought meals from home though one woman took food and cooker to cook at the hospital. A DRH midwife considered the total cost of onward referral when treating.

“my elder daughter went home to bring meals for us. She went back and forth to *bring meals that my aunt cooked at home.*” (Woman)

“If the woman was referred further, she would spend a lot of money for everything. For all the referral cases, I want to help successfully at the DRH, so that HC would not feel discouraged that they referred *to us.*” (DRH Midwife)

“*If the women do not have ID poor card, I will pay. We do everything to make sure that the women can go and are alive. Whether they pay back or not depends on their heart. ...we had fundraising boxes placed at pagodas... to help share the [financial] burden on the HC.*” (HC Manager)

The Dream envisioned by interviewees was not broken down by journey stage. In this, interviewees attempted to solve that had been backgrounded in questioning thus far (such as danger in childbirth, delays in getting to a facility, rude and unsupportive clinical staff at healthcare facilities). The most common response was for a safe, easy and natural delivery near their home, from eighteen (18) interviewees:

“*the mother is safe, and the baby is also safe...Not to go further to province [PRH] or district [DRH]... end just at HC...not to go too far.*” (Mother)

“*skilled midwives should stand by at HC and for the women to go to deliver at HC, not at home.*” (Village Leader)

“*The women feel confident that they can deliver by themselves...for example, [sometimes when they have] terrible pain, they said that could not bear the pain any longer and they asked to have c-section. [I] don’t want them to feel like that. [I want them] to believe that based on what the midwife examined –*

small baby, good position, and good cervix dilation – they trust [that they could deliver on their own].” (PRH Midwife)

Respondents provided a number of explanations on how their dream could be enabled. Thirteen (13) interviewees thought that care from family and community was critical for successful referral. This could take many forms, such as physical and emotional support from husbands, mothers and the VHSG. Interviewees also wanted many relatives and neighbors to visit the women at HC or at home after delivery.

Eleven (11) research participants thought that women possessing good antenatal and postnatal knowledge through consultation with health staff (Husband) and having regular ANC was important. Care also includes having healthy diet, taking iron supplements and relevant vaccinations as well as returning to facilities for post-natal care.

Available transportation that is safe, fast and convenient was essential to 7 interviewees. Some dreamed that women had their own motorbike or tuktuk [motor tricycle] to bring the women to the HC. Husbands should check the vehicle before use and drive carefully. Interviewees also dreamed of a HCs with an ambulance and a driver and roads in good condition.

Friendly polite staff, who are more skilled and caring was important for 9 interviewees. For respondents, this meant not only carrying out the required technical tasks but also being friendly, amusing and kind, speaking politely to all labouring and birthing women. One DRH midwife had a comprehensive philosophy of care, arguing that staff needed to take care of five aspects of birth – the physical, emotional, religious, social, and political, while remaining ethical by not breaking confidential information on women. To enable friendly, polite and skilled care, respondents thought that the community could influence staff behavior by themselves being polite and kind towards healthcare staff. VHSG could report complaints from women and their families directly to staff though one respondent went further and suggested anyone in the community, any staff in a HC or DRH or any other stakeholders should report staff misbehavior at monthly OD meetings. Hospital directors could remind staff on their attitudes and behavior during daily meetings. MOH and NGOs could provide additional training on women centered communication skills as well as technical obstetric skills. Ongoing mentoring from senior and experienced midwives for junior midwives would also enable skilled care. Last, management can take responsibility by providing more performance incentives to staff, send staff for additional training, undertake cross-department learning rotation, and create check-and-balance system for the payment of user fees.

Seven interviewees touched on health facilities – that facilities charge lower user fees so that services are accessible to the poor; more skilled midwives on stand-by as well as enough equipment, especially for emergency treatment. The building should be of patient-centered design, with separate rooms for different types of patient, private rooms for the couple, delivery rooms close to operation rooms as well as waiting rooms.

## DISCUSSION

We collected positive stories of women giving birth supported by families, communities and healthcare workers in one rural province in a low income setting. We now consider our findings in light of our research questions

## Original insights on obstetric referral in the Cambodian public health system

For healthcare staff, the stories we collected contribute to the burgeoning literature on intrinsic motivation, which is linked to positive health worker behaviours across different contexts (Okello and Gilson 2015). Appreciation is one of a number of factors that directly influence trust between healthcare staff, leadership and patients leading to higher staff motivation to perform. It is significant that caring responses from clinicians were identified in current practice. In contrast, Ith et al (Ith, Dawson et al. 2013) reported staff using “offensive language ridiculing clothes and behaviour, especially of poor people” in which no additional under-the-table-payments were possible. Almost all Ith et al., interviewees believed family and community support during labour was negative; richer women were felt to get better care because of opportunities to levy additional under-the-table fees. Our findings do not contradict that study rather point out that other practices are also taking place. There are clinical staff who exhibit caring actions; families were allowed in delivery rooms; collaboration with families and communities were seen by some clinical staff as essential for a live birth and living mother. Using an appreciative lens meant that we could identify common ground to direct change where Ith et al., may imply there is none.

It is recognized that motivation and ‘performance’ of family and community are important in assuring successful referral (Lee, Lawn et al. 2009). Families and communities in rural Prey Veng were aware of different system levels and associated capacities (such as equipment) and this seemed to inform their expectations of care at each level. For instance, they were aware that HCs could not handle difficult cases so referral was not seen as demeaning (c.f. Bossyns and Van Lerberghe 2004). Interviewees displayed a confidence that referral was itself positive and that they would be received at a higher level facility. Interviewees also perceived capacity gaps (by dreaming of a fully equipped service). Confidence by families in clinical facilities gave clinical staff a freedom to refer, knowing that families would not judge their knowledge and skills as inferior. Active collaboration between the health system, family and community was displayed. The speed of decision making at HCs to refer and the use of a community referral letter to aid referral is important when the literature is replete with examples of stalling. Forward communication and feedback also takes place between facilities, and feedback from families was well received. The OD meeting referred to above is where all HC heads meet monthly with the district head so feedback in at least one case was horizontal across the whole district.

In other words, family and community were essential for successful referral. Prompt care and assistance from family and community throughout a delivery journey was valued across all interviewee categories and was part of the future vision for referral and delivery dream. Such care was wide ranging including making decisions to access care; organising transport for ANC and delivery; providing food and emotional support while in a facility; and, at times, agitating for onward referral and post-partum care at home. It was also critical that relatives came to visit the new baby in hospital and at home – in one case where this did not happen, the husband in particular was highly dissatisfied. This is important given that user satisfaction as a key area of service quality is pivotal to the WHO priority of people centred care (WHO 2015). Our research suggests that participation of family in healthcare in the widest sense is a key component both of ensuring that services are accepted and used and is an intrinsic feature of good quality service.

## Indications that positive inquiry could be transformative

A new (when compared with published research on obstetric referral) model of referral was recognized and understood by interviewees. Based on our results, it seems when referral operates at its best in rural Cambodia, it operates as an active partnership between families, community and clinicians that co-constructs care for labouring women during referral and delivery. We use the word active to refer to the conscious taking on of responsibility by different stakeholders for different aspects of delivery journeys. Referral is not a purely clinical activity and system strengthening actions cannot take place solely in the formal health sector. Practically, this implies that recommendations to strengthen obstetric referral that only target the formal public health system (e.g. Bossyns and Van Lerberghe 2004) will underperform. AI invites stakeholders to identify how they can take appropriate responsibility for change but with no new resources. This changes the concept of care. Care is no longer passively provided to people and solutions found for them, rather care becomes that which is co-constructed by active and engaged participants. Using an AI framework influences this because AI assumes that all participants are, and can be, involved in change. Responses on how to achieve the dream of friendly skilled care is a case in point. Notice that all respondent categories identified tasks for themselves and for others and that training, often the core of capacity development interventions, turns into a still important but now minor aspect of how to enable care within referral partnerships.

The delivery journeys that we documented were high on positivity – stories were powerful and unique. The interviewee validation workshop showed strong participation in both numbers attending and propensity for discussion and uniquely brought together families, community and healthcare staff to deepen their vision of what future referral could look like. In addition, a wide range of health system stakeholders attending an end of project results presentation welcomed the results and recognition of what was currently working in obstetric referral. During these sessions, there were some early indications of transformation. One stakeholder discussed developing a formal manual for staff on how collaboration between family and healthcare staff could be conducted during delivery and healthcare staff spent time discussing how their hospitals should address food related costs of hospital delivery. We did not follow up on these discussions but there are tentative indications that the findings may have (at least temporarily) changed staff attitudes. Given the short time frame of the research, we cannot be sure that the new model of referral as partnership has generated a fundamental change in thinking. When aggregating all responses and comparing the discovery and dream phases, the responses were very similar and we did not see a clear break in participant thinking. On the other hand, when looking into individual transcripts, the dream enablers for some (the future) were the past positive aspects for others. One interpretation is that the dreams are practical in two ways: they can be done because they have been done; and when done they can enable successful referral. However, we did not conduct a full AI cycle so we cannot state exactly that practice or policy would be transformed by taking a positive approach.

Overall, the value of AI lies not only in its research potential but also in changing the terms of engagement between researchers, health development donors and low income settings. The Asia Pacific region is moving into a new era of health – nearly all countries are at, or about to achieve, middle income status, with a shift in disease burden to chronic illness with absolute increases in years lived with disability. At the same time, traditional development donors such as Australia are shifting their engagement onto a partnership basis and seeking to use

smaller development funds to lever local and regional assets for health system change. Countries such as Cambodia are no longer being passively provided to – they need to be rethought as active stakeholders bringing a wide range of resources to bear for the collective development of a healthy nation. The global policy shift to UHC means that countries can then mobilise those resources across communities and formal health systems, in order to facilitate universal access – both in terms of the services provided and in referral behaviours that enable effective care.

## CONCLUSION

We set out to explore whether positive inquiry could strengthen obstetric referral systems in a low income setting. In discussion with MOH Cambodia, we focused on poorly functioning referral that was thought to influence higher maternal mortality in rural areas. We documented 30 delivery journeys that took place within the last year, using an appreciative lens. We found referral that saves women's lives is built on active collaboration between clinicians, families and communities that co constructed care throughout transfer and delivery. When health system leaders and researchers acknowledge this reality of contemporary referral practice, a base for future change is established. We could not show that AI could induce transformative thinking necessary for practice change and recommend that a full AI cycle complete with a monitoring and evaluation stream is conducted to fully evaluate the change potential of positive inquiry.

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<b>Table 1: Interview details</b>				
<b>Interviewee</b>	<b>Type of Referral</b>	<b>Stated Cause of Referral by Interviewee</b>	<b>Delivery Journey</b>	<b>Place of Delivery</b>
			1: Home (H) => HC => H 2: H => HC => DRH =>H 3: H => HC=> DRH => PRH =>H 4: Other	
HC midwife	Emergency	Placenta previa	4: (H => HC => PRH => H)	PRH
HC vice manager/ midwife	Emergency	Prolonged pushing	4: (H => HC => HC => H)	HC
Woman	Normal	Unprogressive dilation	4: (H => HC =>DRH => H => HC => H)	HC
Sister	Normal	Unprogressive dilation	4: (H => HC =>DRH => H => HC => H)	HC
Village leader	Emergency	Post-partum hemorrhage	4: (H => HC => PRH => H)	HC
Head of MCH/ PRH midwife	Emergency	Post-partum hemorrhage	4: (H => HC => PRH => H)	HC
PRH midwife	Emergency	Eclampsia	4: (H => PRH => H)	PRH
VHSG	Emergency	Eclampsia	4: (H => HC => DRH => NH => H)	NH
Woman	Emergency	Placenta previa	4: (H => HC => DRH => NH => H => HC => H)	HC
Woman	Emergency	Pre-eclampsia	3: H => HC=> DRH => PRH =>H	PRH
Mother	Emergency	Post-partum hemorrhage	3	HC
Woman	Emergency	Pre-eclampsia	3	PRH
Mother	Emergency	Pre-eclampsia	3	PRH
VHSG	Emergency	Prolonged pushing	2: H => HC => DRH =>H	DRH
Village leader	Emergency	Pre-eclampsia	2	DRH
DRH director	Emergency	Post-partum hemorrhage	2	HC
Woman	Normal	Unprogressive dilation	2	DRH
Woman	Normal	Unprogressive dilation	2	DRH
DRH midwife	Emergency	Post-partum hemorrhage	2	HC
Woman	Normal	Unprogressive dilation	2	DRH

Woman	Emergency	Pre-eclampsia	2	DRH
DRH doctor	Emergency	Post-partum hemorrhage	2	HC
DRH midwife	Emergency	Post-partum hemorrhage	2	HC
Woman	Emergency	Post-partum hemorrhage	2	HC
Husband	Emergency	Post-partum hemorrhage	2	HC
HC manager	Emergency	Post-partum hemorrhage	2	HC
VHSG	Normal	Delivery	1: H => HC => H	HC
Woman	Normal	Delivery	1	HC
Aunt (neighbour)	Normal	Delivery	1	HC
Woman	Normal	Delivery	1	HC