

## Review

# Birth in the Arab region: translating research into practice

T. Kabakian Khasholian,<sup>1</sup> F. El Kak<sup>1</sup> and R. Shayboub<sup>1</sup>

## الولادة في المنطقة العربية: ترجمة البحوث إلى ممارسة

تمار كباكيان خاشوليان، فيصل القاق، رَوَّان شيبوب

**الخلاصة:** تُعدُّ الشبكة البحثية للاختيارات والتحديات في تغيير حصائل الولادة ثمرة تعاون إقليمي يضم أربعة بلدان عربية هي مصر ولبنان وفلسطين والجمهورية العربية السورية، وتقدّم هذه الشبكة بيّنات حول ممارسات الولادة، وتتعرف على المجالات المتاحة للتغيير فيها. وقد أشارت الدراسات التي أجريت في الإقليم إلى عدد من المشكلات التي تؤثر على جودة خدمات الأمومة مع نقص في مشاركة النساء في عملية رعاية الأمهات. وتهدف الشبكة إلى إحداث تغيير في ممارسات الولادة وذلك بانتقاء مجالات بحثية يحتمل أن تؤثر على الممارسات أكثر من غيرها، وتقديم الدعم لعملية الحصول على بيّنات إقليمية الطابع، وعن طريق إظهار أهمية أنشطة بث المعلومات المُشابهة. وترصد هذه الورقة خبرات كما الشبكة في انتقاء الاستراتيجيات المناسبة للتعاطي مع مختلف التحديات، كما تناقش العقابيل التي تواجه هذه العملية.

**ABSTRACT** The Choices and Challenges in Changing Childbirth research network is a regional collaboration among 4 countries in the Arab region, namely Egypt, Lebanon, Palestine and Syrian Arab Republic, providing evidence of childbirth practices and identifying areas amenable to change. Studies that have been conducted in the region pinpoint problems in the quality of maternity services and a lack of women's involvement in the process of maternity care. The network aims to change childbirth practices by selecting research areas most likely to influence practices, by supporting the process of obtaining regionally relevant evidence of a high standard and by assigning importance to dissemination and networking activities. This paper draws on the experience of the network in selecting strategies to approach different challenges and discusses the barriers facing this process.

## Accoucher dans un pays arabe : traduire les résultats de la recherche en pratique

**RÉSUMÉ** Le réseau de recherche *Choices and Challenges in Changing Childbirth* [Choix et difficultés de l'amélioration de l'accouchement] est une collaboration régionale entre quatre pays arabes, à savoir l'Égypte, le Liban, la Palestine et la République arabe syrienne. Ce réseau fournit des données sur les pratiques en matière d'accouchement et identifie des domaines qui peuvent faire l'objet de changements. Les études menées dans la région mettent en exergue les problèmes de qualité des services liés à la maternité et l'absence d'implication des femmes dans la prestation de soins maternels. Le réseau vise à modifier les pratiques d'accouchement en sélectionnant les domaines de recherche les plus susceptibles de les influencer, en soutenant le processus d'obtention de données pertinentes de qualité au plan régional, et en privilégiant les activités de diffusion et de mise en réseau. L'article tire les enseignements de l'expérience du réseau dans le domaine du choix de stratégies d'approche des différentes difficultés et examine les obstacles entravant le processus d'obtention de données.

<sup>1</sup>Department of Health Behavior and Education, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon (Correspondence to F. El Kak: fk01@aub.edu.lb).

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## Introduction

The Arab region is characterized by a wide variation in population development indicators, fertility rates and income levels. Patterns of maternity care show that it is undergoing a rapid shift from home to hospital births with an increasing uptake of medical technology in maternity services. Despite the limited data from the region, there is evidence that maternal mortality has declined in most of its countries [1]. This has been coupled with an increase in facility-based births and in the use of skilled attendants at birth [2–5].

Most studies looking at childbirth in the Arab region focus on the traditional aspects of the birthing process, on maternal mortality rates or on emergency obstetric complications, thus ignoring the ever-increasing number of women who experience uncomplicated vaginal births in hospital settings. However, uncomplicated hospital-based vaginal deliveries require special attention in developing country settings, where medicalization of childbirth may increase the risk for women and their infants, particularly in the context of lack of infrastructure and technical competence in many of these countries.

A group of researchers from 4 countries in the Arab region, namely Egypt, Lebanon, Palestine and Syrian Arab Republic, came together with an interest in investigating normal childbirth as it relates to routines and practices in the hospital setting, as well as women's and providers' perspectives on the process of care. The work of this group was built on earlier studies conducted by the B-WELL (Bettering Women's Experiences of Labour and Delivery in Lebanon) group at the Faculty of Health Sciences, American University of Beirut, Lebanon, and earlier research on reproductive health conducted by different members of the Reproductive Health Working Group (RHWG). This new research initiative developed into the Choices and Challenges in Changing

Childbirth (CCCC) research network, which has received generous funding from the Wellcome Trust in the United Kingdom since 2001.

The aim of the CCCC research programme is to accumulate scientific evidence about childbirth practices and identify effective ways of making maternity care safer for women and their newborns in the Arab region. This paper discusses the challenges facing the network and the strategies adopted in using the research programme to influence childbirth practices and policies in the region.

## Background

There are a number of factors within the larger environment surrounding the childbirth episode that need to be considered while planning any action for change. In this article we highlight factors related to the reproductive health agendas, the health systems and the issue of women's involvement in maternity care in the Arab region.

The reproductive health agendas in many developing countries, including those of the Arab region, tend to use a "reductionist approach" in their development activities. That is, activities are either geared towards promotion of family planning, reduction of maternal mortality or universal uptake of prenatal care. In the great majority of countries, uncomplicated childbirth is not a priority of the research or policy agendas. Reducing maternal health to a focus on maternal mortality is a problem observed in the application of the recommendations of the International Conference on Population and Development (ICPD) programme [6] and the Millennium Developmental Goals (MDG) [7]. The importance of programmes aimed at fertility reduction or preventing maternal deaths is not to be underestimated, of course. However, in a region with high fertility rates, consideration should also be given to the

needs of the majority of women who undergo normal childbirth, probably several times during their reproductive years.

The diversity in health systems among different Arab countries is another important factor. Lebanon's health care system, for example, is highly privatized [8]. In the Syrian Arab Republic and Egypt, both the public and private sectors have an important role in the health care system, whereas Palestine has witnessed a shift from high reliance on nongovernmental organizations to dependence on the public sector for provision of care [9–11]. In addition, efforts to change the systems face a number of challenges within each country, such as the diversity of training backgrounds of health care providers in Lebanon, high workload in obstetric hospitals in Egypt and limited access to health care settings due to political instability in Palestine. All of these weaken the prospect of adopting standard practice protocols and guidelines. The differences between countries in fact highlight the need to develop strategies for change individually for each country.

Generally speaking, women in the Arab world are not encouraged to participate in the decision-making process related to their obstetric care [12,13]. This probably reflects the overall culture of patient-provider relationships in these countries. However, it becomes more important when we consider childbirth as a normal physiological process, where women's satisfaction with the care received is of utmost importance in determining the success of their experience.

During recent decades, the Arab region has experienced a rise in the adoption of medical technologies, coupled with a complete absence of public education related to these technologies. This has created an element of supply and demand, leading to the medicalization of childbirth. In most instances, women's so-called "demands" are based on misinformation about a certain

obstetric procedure, such as caesarean section delivery [14], or use of a technology, such as ultrasonography [15].

## The CCCC network

### The research programme

The CCCC network has organized numerous workshops to assist its members in developing research proposals for observational and intervention studies. The aims of these workshops are to direct country team members towards research areas of importance in maternal health and to select problems that are most amenable to change and are sustainable within their own health care system. The practice and policy implications of these studies are considered during the development of research proposals and listed as important outcomes expected from that research activity.

These workshops, as well as the internal and external peer review processes of research proposals, provide an important opportunity to secure the quality of research and to build the hierarchy of evidence in the region. These workshops also contribute to capacity building in the teams, development of research themes and consolidation of the network.

In this regard, the CCCC network members were among the first to conduct studies investigating hospital practices in normal childbirth [16] and to use innovative methodologies in this area, such as observation of the entire birthing process [17], as well as conducting some of the earliest randomized controlled trials of obstetric practices in the Arab region [18,19].

The studies conducted within this programme highlight problems in the quality of maternity services provided in the region and the lack of women's involvement in the overall process of care. Findings from studies conducted in the CCCC research programme provided evidence of the variation in the process

of care in these countries, as well as the discrepancy between routine practices and best practices identified in the literature. Childbirth is highly medicalized in the region, with substantial numbers of unnecessary or even harmful practices being routinely applied, such as perineal shaving and enemas, non-indicated labour induction and episiotomies, infrequent use of rooming-in, minimal provision of breastfeeding advice and support, and lack of postnatal family planning advice [9]. A similar situation is observed in the provision of antenatal care, where evidence-based practices are not followed regarding the different packages that need to be delivered for high-risk versus low-risk pregnancies [20].

Women in these countries tend to prefer professional delivery in hospitals. However, they complain about the quality of care in hospitals, especially lack of privacy, poor treatment and the lack of choice to have a companion during labour and delivery. They usually trust the physician's decisions regarding procedures, although they are discontent with many of those performed. In general, women are not involved in the decision-making process for the provision of care during childbirth and do not voice their complaints [12,13].

The description of obstetric practices provided by the observational studies has indicated areas where change is desirable and has served as baseline for the design of intervention studies. A number of intervention studies targeting change among providers and/or women, as well as studies evaluating the effectiveness of practices with unknown outcomes, are being conducted by the CCCC network (Table 1).

### Dissemination and translation activities

The network has recognized the importance of adopting a variety of strategies to impact policy and practice early in the process of development and consolidation. A number of barriers

are faced in this process, such as the dominant culture of unquestioning trust in physicians among women, a lack of accountability within health systems, the predominance of fragmented care, the lack of interest of policy-makers in clinical effectiveness and research evidence, and a social environment not conducive to policy change in general. In this regard, the CCCC network is actively seeking to mobilize agents of change by networking and collaborating with different stakeholders.

Early on in its development, the CCCC network recognized the importance of initiating dialogue with the players involved in the 3 key components of maternal health: the women, the providers and the systems of delivering maternity care. Currently, the network is using a dissemination model whereby a focal member of the network is appointed to plan and implement dissemination and networking activities. This model has been shown to be useful in recognizing dissemination efforts as a separate entity and providing the time and the resources necessary for these activities. All dissemination and networking activities of the CCCC network aim to instigate a certain change in knowledge, attitudes or behaviours among these players.

The network members use a number of strategies in conducting their research projects in order to facilitate translation and dissemination activities. One of these strategies is the involvement of the key players in maternity care early in the process of developing a study or planning for dissemination of major findings. This approach has proved to be beneficial. It provides a framework for exchanging ideas about different needs and expectations and forming a common understanding and appreciation of research in this area.

Another important strategy is the involvement of clinicians in its research teams and dissemination activities. The CCCC is a multidisciplinary network. The disciplines of its members range

**Table 1 Research projects conducted by the Choices and Challenges in Changing Childbirth research network.**

Country	Observational studies	Policy studies	Examples of findings of interest	Intervention studies
Egypt	Birth practices in a teaching hospital.	Analysis of the policy environment affecting postpartum practices in a teaching hospital.	Routine use of harmful and unnecessary delivery and postpartum practices.	Evaluating providers' training approach in decreasing harmful delivery and postpartum practices in a teaching hospital.  Evaluating written materials on postpartum health.
Palestine	Policies and practices of childbirth in maternity facilities in West Bank.	Developing perinatal health policy in a situation of conflict.	Routine use of early amniotomy in maternity facilities.	Amniotomy vs intent to conserve the membranes in normal labour: a randomized controlled trial.
Syrian Arab Republic	Women's perceptions and experiences of childbirth in relation to caregiver.		Lack of organized postpartum health care delivery system. Low use of postpartum services by women.	Evaluating a postpartum home visiting package in reducing adverse maternal and neonatal health outcomes.  Training in interpersonal competence to change providers' behaviour.
Lebanon	Policies and practices of normal labour and delivery in a national sample of hospitals. Women's perceptions and experiences of childbirth.	Analysis of the environment of caesarean section practices.	Low use of postpartum services by women. Lack of women's involvement in the process of care.	Effect of written material on postpartum health in improving uptake of postpartum services.  Mobilizing women to change maternity practices: a cluster randomized controlled trial.

from public health professionals, to obstetricians, paediatricians, midwives, family physicians, social scientists, epidemiologists, health educators, hospital administrators and biostatisticians. Each member brings an important asset to its country team as well as to the overall network through different communication channels and joint activities. The involvement of clinicians in the network is of particular significance for 3 main reasons. First, these clinicians are usually involved through the health care centres where they practice, therefore providing an opportunity for change at the centre through the research conducted on their premises. Secondly, clinicians use their own networks to involve health care centres with a wide

influence on obstetric practice in the country as sites for intervention studies and/or to involve prominent obstetricians in research activities. Thirdly, clinicians can assess the feasibility of certain projects and the likelihood that changes can be adopted in clinical settings.

Dissemination of research findings has always been one of the major activities undertaken by CCCC network country teams for each completed research project. Meetings and workshops are usually organized by the teams to share their findings with different local stakeholders, such as government and United Nations representatives, physicians and other health care professionals, representatives of nongovernmental organizations, women's groups and others.

Country teams also participate in meetings organized by other local scientific bodies. The most important of these are the annual meetings of the local societies of obstetrics and gynaecology, which serve as an important communication venue with physicians. This involvement facilitates the dissemination of research findings and the notion of "maternal health beyond maternal mortality" into the agendas of these societies.

Currently, the team in Lebanon is undertaking 3 different dissemination and networking activities in this area in order to influence public knowledge about maternal health and maternity care and to create some change in the delivery of services. The first of these



activities is the publication of a maternal health newsletter called *Salamat Hamlek* that is distributed free of charge in most private and public obstetric clinics in the country. This newsletter is published every 3 months, is written in language suitable for a lay audience and includes a variety of topics on pre-conception, pregnancy, delivery and postpartum care.

The second activity is participation in a local television programme on family health by preparing and delivering an episode on maternal health once a month. The network members decide on the topics discussed, the messages delivered and the professionals involved in delivering them.

The third activity is setting up the Initiative on Standard Of Practice In Childbirth (ISOPIC). This initiative comprises a team of practising obstetricians with different educational backgrounds from various hospitals and medical centres from all regions in Lebanon, with the objective of defining a model of best practice in obstetric care in the country. This group is currently developing guidelines and protocols for practice in obstetric care that are evidence-based and adapted to the Lebanese setting. One of the important aims of the initiative is to “brand” or “franchise” these practices, so that all maternity services provided by ISOPIC members are consistent and become known for their high quality and user-friendly approach to care.

## Outcomes

Until now, assessing changes in the knowledge, attitudes or behaviours of the different players was done indirectly and informally. For example, one of the major accomplishments of the CCCC dissemination programme in Lebanon is the observed change in the general attitude of obstetricians towards the importance of the CCCC research agenda in particular and

evidence-based obstetrics in general, as well as bringing the international language of evidence-based obstetrics into local meetings. This is demonstrated mainly by the increasing number of obstetricians attending CCCC dissemination meetings, the invitations received by the local obstetrics and gynaecology society to present CCCC research or to organize an entire session in their meetings and by the number of clinicians approaching the network for collaborative research. One other accomplishment in Lebanon is the close collaboration with the local media. This has resulted in translating research findings into lay language suitable for dissemination through the health pages of local newspapers and the network's involvement in the television programme mentioned above.

The continuous dissemination and networking activities in the region have also helped to encourage the concept of “maternal health beyond maternal mortality”. CCCC network members in Palestine, for example, were successful in incorporating specific questions on women's health into one of the major surveys of the Palestinian Bureau of Statistics. The regional network has been successful in organizing sessions in local, regional as well as international meetings in obstetrics and gynaecology, presenting the research findings and drawing attention to maternal health issues beyond maternal mortality and technological innovations. In some of these meetings, the CCCC session was the only one addressing these issues.

The Lebanon team is currently devising an assessment plan for its new dissemination activities (*Salamat Hamlek* newsletter, participation in the television programme and the ISOPIC). These evaluation activities will provide scientific measures of the anticipated changes in maternity practice and guide future activities in Lebanon as well as in the other participating countries.

## Conclusion

The CCCC network presents an example of a regional multidisciplinary research network that is also committed to influencing policy and practice. The experience of the network highlights some important lessons that could benefit its future work as well as the work of similar groups elsewhere in the world.

The CCCC network members identified areas of priority in their own settings and built their own research agendas, working within an overarching research framework. Studies looking into hospital policies and routine practices in obstetric care [9,10] and investigating women's experiences with that care [12,13] were conducted in more than one setting. These studies provided a better understanding of the common ground and the differences pertaining to each country. The future agenda of the CCCC network will benefit from including comparative studies across these 4 countries. Such studies will be influential in providing evidence on effective ways of changing practices and will help in setting standards of care in the region.

Studies describing the influence of the macro policy environment of the health care systems on specific practices are scarce in the Arab region. The CCCC network has undertaken a few such studies investigating specific areas and issues in maternal health, such as perinatal health and caesarean section practices [11,14]. However, more research is needed in this area. These studies will help build an understanding of the different forces and identify opportunities and barriers for change. This is a prerequisite for effective dissemination and networking that aims to influence policy and practice.

The involvement of different players early in the development of study protocols brings a number of advantages. This process provides a forum for discussion of different perspectives to

be incorporated into the research planning process. It facilitates the process of conducting research in terms of access to different sites and populations and improves acceptance among different groups. Another major advantage of this approach is that it facilitates the use of evidence from study findings to change maternity practice in certain settings. Such successful experiences have been noted by the CCCC country teams

in Egypt and Palestine, where the involvement of practitioners and hospital administrators in specific intervention studies resulted in prompt translation of study findings into changes in practice in their health care establishments.

The final lesson learnt from the experience of the CCCC network is the importance of widening the dialogue with different players, learning to use approaches that encourage maternity care

providers' interest in these issues and strengthening collaboration through more participatory research. These are the necessary steps in the process of transferring research knowledge into changes in practices and policy. It can be achieved by developing the necessary cadre in charge of planning and executing dissemination and networking agendas. Effective communication remains the key to this process.

## References

1. Abou Zahr C, Wardlaw T. Maternal mortality at the end of a decade: signs of progress? *Bulletin of the World Health Organization*, 2001, 79:561-568.
2. *Lebanon maternal and child health survey: principal report*. Beirut, Republic of Lebanon and the Pan Arab Project for Child Development (PAPCHILD) of the League of Arab States, 1998.
3. *The report of the Syrian family survey*. Damascus, Pan Arab Project for Family Health, Syrian Central Bureau of Statistics, 2002.
4. *Health survey 2000: final report*. Ramallah, Palestine, Palestinian Central Bureau of Statistics, 2001.
5. El-Zanaty F, Way A. *Egypt demographic and health survey 2000*. Calverton, Maryland, Macro International/National Population Council Egypt, 2001.
6. *Interpreting Reproductive Health. ICPD +5 Forum*, The Hague, 8-12 February, 1999. Geneva, World Health Organization, 1999 (WHO/CHS/RHR/99.7).
7. *Millennium development goals*. New York, United Nations, 2008 (<http://www.un.org/millenniumgoals/maternal.shtml>, accessed 16 November 2011).
8. Van Lerberghe WV et al. Reform follows failure. I. Unregulated private care in Lebanon. *Health Policy and Planning*, 1997, 12:296-311.
9. Choices and Challenges in Changing Childbirth Research Network. Routines in facility-based maternity care: evidence from the Arab World. *British Journal of Obstetrics and Gynaecology*, 2005, 112:1270-1276.
10. Abdulsalam A et al. Routine care of normal deliveries as applied in Syrian maternity wards. *Journal of the Arab Board of Medical Specializations*, 2004, 6:134-140.
11. Giacaman R et al. The politics of childbirth in the context of conflict: policies or de facto practices? *Health Policy*, 2005, 72:129-139.
12. Kabakian-Khasholian T et al. Women's experiences of maternity care: satisfaction or passivity? *Social Science & Medicine*, 2000, 51:103-113.
13. Bashour H, Abdulsalam A. Syrian women's preferences for birth attendant and birth place. *Birth*, 2005, 32:20-26.
14. Kabakian-Khasholian T et al. The policy environment encouraging C-section in Lebanon. *Health Policy*, 2007, 83:31-49.
15. Bashour H, Hafez R, Abdulsalam A. Syrian women's perceptions and experiences of ultrasound screening in pregnancy: implications for antenatal policy. *Reproductive Health Matters*, 2005, 13:147-154.
16. Khayat R, Campbell OMR. Hospital policies and practices for normal childbirth in Lebanon. *Health Policy and Planning*, 2000, 15:270-278.
17. Sholkamy H et al. *An observation checklist for facility-based normal labor and delivery practices: the Galaa study. Monographs in Reproductive Health No. 5*. Cairo, Population Council, 2003.
18. Mikki N et al. A trial of amniotomy in a Palestinian hospital. *Journal of Obstetrics and Gynaecology*, 2007, 27(4):368-373.
19. Kabakian-Khasholian T, Campbell OM. Impact of written information on women's use of postpartum services: a randomized controlled trial. *Acta Obstetrica et Gynecologica Scandinavica*, 2007, 86:793-798.
20. El Kak F et al. Patterns of of antenatal care in low versus high risk pregnancies in Lebanon. *Eastern Mediterranean Health Journal*, 2004, 10:268-276.