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What has public health got to do with midwifery? Midwives' role in securing better health outcomes for mothers and babies

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Abstract
Background: The maternity services hold a unique position in influencing current and future maternal and infant health and midwives play a pivotal role. However, midwifery's role in public health is rarely acknowledged by the ''system'' or by midwives themselves. In fact most midwives may find it difficult reconciling public health with the care they provide.
Aim and methods: This paper aims to raise midwives' public health consciousness and explores the ways in which they can, regardless of the maternity service context in which they work, explicitly acknowledge their own public health practice and the role of midwifery more generally in securing maternal and infant health.
Discussion: Salient examples in antenatal, intrapartum and postnatal care have highlighted how midwives can engage in public health issues relevant to their everyday clinical practice and in so doing re-define and extend their boundaries of care. Public health has much to do with midwifery and midwifery has much to do with public health.
Implications for practice: Midwifery practice can have a profound impact on maternal and infant health both short and long-term, so it is critical that all midwives take up the public health challenge for the benefit of the population they serve.

Introduction

Public health is crucial to all of us. Despite the fact that the provision of acute health services seems to bear little relationship to the health of the population, the maternity services hold a unique position in influencing current and future maternal and infant health and midwives play a pivotal role.

Midwives provide care at the most critical times during the childbearing cycle, and as they become increasingly involved in all aspects of maternity care provision, their role in securing the overall health of mothers and babies needs to be made more explicit. It is timely to acknowledge the important contribution midwives make to maternal and

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infant health and to highlight that midwifery practice can and does have a profound impact on the health of the population.

What is public health and what has it got to do with midwifery?

Public health is defined as

> "...the organised response by society to protect and promote health, and to prevent illness, injury and disability. The starting point for identifying public health issues, problems and priorities, and for designing and implementing interventions, is the population as a whole, or population sub-groups." [1, p. 2]

Public health may seem remote from the day to day concerns of a busy maternity hospital and the midwives working within it. However, with the Commonwealth Government focussed on the reform of health and hospitals,[2,3] including the maternity services,[4] it is becoming more important that midwives actively engage in the broader issues of public health.

Midwives have an important if not essential public health role, which is rarely acknowledged. Carlson[5] refers to midwives as public health practitioners, although they are less likely to appreciate this perspective. She points out that there are several barriers to midwives recognising their own contribution to public health practice, but on a positive note suggests they can overcome these personal and professional barriers.

Bick[6] contends that acknowledging the importance of effective public health strategies should be central to midwifery practice. Midwives also have a professional obligation to ensure public health is given due prominence within their practice. The Australian College of Midwives' Philosophy Statement for Midwifery places the profession within a primary health care context stating that,

> "Midwifery is a woman centred, political, primary health care discipline founded on the relationships between women and their midwives. Midwifery is emancipatory because it protects and enhances the health and social status of women, which in turn protects and enhances the health and well-being of society."[7]

The contextualising of midwifery practice within primary health care is also emphasised in The Australian, Nursing and Midwifery Council National Competency Standards for the Midwife which urges the profession to seeing itself as a public health strategy.[8] Midwifery as a profession is also obligated to the public good.[9]

The seminal document the 'Ottawa Charter'[10] was adopted in 1986 and was used as the basis for action to achieve "Health for All" by the year 2000 and beyond. With the greater emphasis on clinical care in acute maternity services, the relevance of the Charter to clinicians working within those services could be argued. However, the Charter does not absolve individuals, health professionals or health service institutions from a role in the pursuit of public health, but instead encourages their cooperation. The Charter also suggests that, "The role of the health sector must move increasingly in a health promotion direction, beyond its responsibility for providing clinical and curative services." [10, p. 3].

In 2008 the World Health Organisation released the World Health Report 2008, which emphasised avenues for health systems reform based on a primary health care approach.[11] The challenge for the midwifery profession is to locate itself more explicitly in a public and primary health care context, to keep abreast of the health care reforms being promulgated which will directly impact on maternity services provision, and therefore be ready to embrace the opportunities being presented to the benefit of childbearing women and families.

Midwifery's public health role

Adopting a public health consciousness does not mean that midwives will have to take on new or different roles. Midwives have been able to adopt an increasing range of public health interventions into their daily work schedules.[5] The challenge is to see these activities as not just a series of extra tasks, but that public health is integrated into the core role of the midwife.[12]

It has been argued that midwives need more support in implementing public health strategies,[13] and this could not be truer when the provision of unbiased and timely information is crucial for expectant and new parents' informed decision-making. Therefore the role of maternity services' administrators is vital for the development of supportive policies, practices and professional training[14] so midwives can enact their public health responsibilities.

The social determinants of health

An appreciation of the social determinants of health and ill health and the primary role of government policy development and implementation in modifying them is fundamental to adopting a public health focus. An understanding of the impact of some of the major social determinants such as income and social status; employment and working conditions; education; the physical environment; lifestyle choices and access to healthcare, can assist midwives in developing a wider perspective of health behaviour. Midwives have an influential position because pregnant women are very amenable (by and large) to receiving and acting upon public health messages.[15] However, the very groups of women who could receive the greatest advantage from health promotion interventions are usually the least able to implement them with reduced social support and access to the benefits of social capital as potential mediating factors.[16] An appreciation of the social determinants of health and behaviour can therefore be crucial in understanding why individuals may not respond in a positive way to the health advice being offered.

Smoking in pregnancy is a case in point. Graham et al.[17] have established that not only do an individual's current circumstances influence their smoking status but exposure to longer term disadvantage shapes smoking behaviour. McDermott and Graham[18] have reported that despite pregnant women knowing the health risks of smoking for themselves and their infants, many regard smoking as a much needed resource in situations marked by chronic disadvantage. This level of insight can assist midwives in working with women to address specific needs. To support midwives in

reaching this level of understanding, then midwifery curricula may need to include an explicit public health component focusing on the social and cultural perspectives of health.

Health inequalities

A discussion about the social determinants of health should also logically include a discussion about their association with health inequalities. One does not have to go very far to see a starker example of a major health inequality than the difference in perinatal outcomes between our indigenous and non-indigenous populations. In 2007 the perinatal death rate for Aboriginal or Torres Strait Islander mothers was double the rates for non-indigenous mothers (20.1 vs. 9.8 per 1000).[19] Maternal death rates are also higher in indigenous women (21.5 vs. 7.9 per 100,000).[20] The Safe Motherhood programs endorsed by the World Health Organisation (WHO)[21] and supported by the International Confederation of Midwives (ICM),[22] work to highlight and ameliorate the plight of childbearing women in developing countries, but could just as easily be applied in our indigenous communities. To begin to understand the tragedy of maternal death and major morbidity, midwives could familiarise themselves with the data on maternal death and morbidity in Australia and a new initiative entitled the Australian Maternity Outcomes Surveillance System (AMOSS)[23] but also access the ICM[22] and WHO[21] sites for information from a global perspective.

Whilst differences in maternal and perinatal morbidity and mortality rates provide dramatic examples of major health inequalities those related to infant feeding are more commonplace. The short and long-term health benefits of breastfeeding have been clearly established. However, Australia is facing a worsening health inequality in relation to breastfeeding. A number of studies have found a strong inverse relationship between socio-economic status and the initiation and duration of breastfeeding.[24–26] In examining this relationship in groups of Australian women, Amir and Donath[27] using the Socio-Economic Indexes for Areas (SEIFA) classification, found a smaller proportion of infants from the lowest socio-economic quintile initiated breastfeeding compared to infants from the highest quintile. What is more, they found a widening gap (over a 10-year period) in the duration of breastfeeding between these groups.

Whilst the potential solution for this major health inequality will more likely be found with an investment in social capital,[27] midwives may be well-placed to help establish breastfeeding support programs, which have shown some promise in areas where breastfeeding initiation and duration are not high.[28]

There are myriad reasons for the sharp decline in breastfeeding rates in the first few weeks after birth and midwives are not responsible for the decisions about infant feeding, which are made at a distance from care-givers nor are associated with the maternity care experience. However, midwives have a professional responsibility to provide evidence-based, non-judgemental support and advice based on the *Ten Steps to Successful Breastfeeding*.[29] They should be mindful of what women have said about their experiences of postnatal care, and that less than very helpful breastfeeding advice has been shown to have a negative impact.[30] Knowledge of the breastfeeding initiation and discharge breastfeeding rates in the units in which midwives work will provide insight into how those individual rates contribute to Australia's overall breastfeeding rates.

Other public health interventions

Midwives provide several public health interventions on a regular basis and their contribution to maternal and infant health should not be under-estimated. But do midwives place these interventions in their public health context? In relation to the series of public health/health promotion messages given to pregnant women do midwives actively think about the impact of these messages on the future health and well-being of women and babies; how women receive these messages, and whether they are making a difference?

At the first pregnancy visit midwives ask women to consider a number of health promoting measures such as dietary modifications to ensure they receive the right balance of nutrients; lifestyle changes such as smoking and alcohol cessation to protect the developing fetus; exercise programs to maintain pelvic floor integrity; screening for infectious diseases such as hepatitis, HIV and rubella; screening for haemoglobinopathies and genetic abnormalities; the prevention of Rh iso-immunisation for women who are Rh negative. It may not seem obvious, but these are all public health interventions undertaken to safeguard maternal and infant health.

Evidence-based guidelines for the provision of pregnancy care specifically, have encouraged clinicians to adopt a health-promotion approach in caring for pregnant women, which if effectively and appropriately provided will help to improve maternal and infant health. The evidence is clear that comprehensively implemented smoking cessation programs contribute to a reduction in low birthweight and pre-term birth.[31] If a woman takes the prescribed dose of folate prior to and during the early weeks of pregnancy, she will reduce her risk of having a baby with a neural tube defect.[32] Every time a midwife asks a woman to provide a mid-stream specimen of urine for the detection and subsequent treatment of asymptomatic bacteriuria she is contributing to a reduction in the incidence of low birthweight.[33]

Appreciating the public health significance of antenatal screening programs specifically will give midwives a greater perspective and may challenge them to consider the wider implications (both positive and negative) of mass screening programs.

It is imperative that doing no harm is kept uppermost in midwives' minds. Because clinicians think they are doing good does not necessarily mean they are. For example routine antenatal screening programs for depression and intimate partner violence are not supported by the evidence, and the widespread introduction of unsupported programs could potentially do more harm than good.[34–36] There may be other means by which women's circumstances can be elicited without resorting to mass screening programs with poor sensitivity and specificity.[37,38]

Other public health programs that midwives are actively engaged in the postnatal period include immunisation and neonatal screening. By providing up to date information and evidence supporting these programs, midwives can encourage parents to be active and involved rather than passive participants.

The role of the health care system in public health

Despite the fact that public health often bears little relationship to the illness care system provided in hospitals, the "health-care system" (including care provided within hospitals) is a determinant of population health for better or for worse.[39] The alarming rise in the caesarean section rate, for which maternity services and clinicians must bear responsibility, is having a direct impact on maternal and neonatal health with evidence suggesting that health outcomes may have worsened as a result.[40,41] Although there are many factors driving rising caesarean section rates which are beyond the influence of the midwifery profession, it must be acknowledged that midwives are not always passive participants. Along with obstetricians, midwives' views[42] and high perceptions of risk[43] may partly explain rising caesarean section rates.

Midwives and obstetricians are jointly responsible for the birth environments in which women labour and for the provision or otherwise of evidence-based care. The midwifery profession has a responsibility to childbearing women to work toward implementing evidence-based practice in the birth suites and communities in which it works. Midwives can keep abreast of evidence-based developments and consider ways to change practice including the implementation of midwifery and other interventions shown to be beneficial or likely to be beneficial[44] and that may help to reduce caesarean section rates.[45] Midwifery unit managers hold a critical position in influencing the nature of care provided by their staff and the atmosphere in which it is provided as well as enabling them to apply the evidence in collaboration with women and obstetric colleagues.

Maternity care surveillance

Whilst midwives working with women during the intrapartum period may be interested in the birth outcomes of women in their own care, the hospital's, state's or country's total birth outcomes may seem less relevant. However, it must be remembered the whole is always the sum of its parts, and it is individual midwifery and obstetric practice that contribute to the outcomes for childbearing women at large. Knowledge of induction of labour, episiotomy and caesarean section rates, as well as the overall birth rate and perinatal mortality ratio for their maternity service, their state and for the country will help midwives contextualise their own practice in the wider maternity care system. This level of knowledge allows clinicians to reflect more deeply on their own practice. More formalised processes of peer review and information feedback may have the potential to reduce caesarean sections.[46,47]

To enable midwives to become conversant with broad measures of maternal and infant health, documentation on birth outcomes is easily accessible and should be essential reading and discussion. The Victorian Perinatal Data Collection Unit (PDCU) publishes an annual report on births in Victoria[48] including a profile for individual maternity services. Victoria leads the way in publishing an annual report on key maternity services performance indicators including individual (named) hospital statistics and comparisons on outcomes for the standard primipara; rates of primary caesarean section and vaginal birth after caesarean.[49]

The Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity (CCOPMM) publishes an annual report on perinatal morbidity and mortality,[50] and a biennial report on birth defects.[51] These documents are all accessible on-line and provide important information for individual clinicians, health services' managers and the general public.

The publication of these important public health surveillance documents depends (in large part) on midwives completing and submitting perinatal data collection forms. An individual midwife's contribution to birth outcome statistics and the collection of those statistics provides another significant example of the midwifery role in public health.

As a member of the CCOPMM I also sit on a sub-committee which reviews stillbirths. As well as commenting on the incidence and classification of stillbirths across Victoria, the committee also discusses the potentially avoidable factors associated with stillbirth. The systemic nature of many of these factors places responsibility with the system which gives rise to them, but does not take away the responsibility of individual care-givers. Our role in Council is to inform the maternity professions and the facilities in which they work, where systems of care could be improved to the benefit of mothers and babies. This information is as applicable to the midwifery profession as it is to the medical profession, particularly with the expansion of midwifery models of care in which midwives are urged to take greater responsibility and accountability.

Knowing and understanding individual and group midwifery contributions to birth outcomes is another step in accepting the profession's public health role, its contribution to public health problems and their solutions.

Long-term effects of care received during labour and birth

The potential in all midwives for helping women experience labour and birth in ways that can optimise their emotional well-being and promote a positive mother-infant interaction[52] is to be encouraged. By the same token, a small proportion of women endure the most negative and traumatic labour and birth, which can affect their identity as mothers and their subsequent fertility.[53] An extremely negative birth experience may also influence a woman's decision regarding the mode of birth for a subsequent pregnancy.[54] Midwives could regularly and routinely reflect on aspects of intrapartum care that may contribute to traumatic experiences for women and acquaint themselves with what women in numerous surveys have said contributes to more satisfying labour and birth experiences.[55–57] Midwives supported by strong midwifery leadership can take responsibility for ameliorating the less than desirable aspects of hospital-based intrapartum care that is in their power to change.

Long-term maternal health

A number of studies have described the prevalence of physical symptoms after childbirth.[58–60] An awareness of the long-term impact of childbirth on maternal health and well-being can assist midwives in providing appropriately supportive care in the postpartum period. Walker and Wilging[59] suggest maternal health has been an area of neglect and women's health needs in the year following birth should be

prioritised. Midwives can alert women during the early postnatal period about common maternal health problems and where to seek assistance if they do arise. As Brown and Lumley[58] pointed out more than 10 years ago, the prevalence of physical health symptoms and their under-reporting by women is a significant public health issue and postpartum morbidity needs to be given a higher priority by all health professionals.

The inverse care law

Much of my career has been spent working in a birth centre setting, where women who were well-informed and predominantly well-educated received safe, satisfying midwifery care in a continuity of care model. Through much of my birth centre experience I gave little thought to the very obvious inequity, that women who were most in need of the services offered by the birth centre were the least likely to receive them. This example of the inverse care law finally drove me to establishing a continuity of care model for women attending the public maternity clinics at a tertiary hospital in Melbourne.[61]

Hart[62] describes the inverse care law as a classic reference reflecting "a global shift of British medical and allied professionalism towards alliance with the mass of the people the profession serves." (p. 18) Whilst Hart[62] coined the term in relation to the availability of medical care, it can be just as easily applied to the provision of midwifery care at all levels. Midwives should always remain conscious of their responsibilities to the mass of families they serve and to place a test of equity on all midwifery services.

Evidence-based practice

Waldenstrom[42] suggests non-evidence-based practice may be contributing to greater intervention during childbirth and "...that there is insufficient scientific evidence to support current practices" (p. 179) in relation to the use of caesarean section. She argues that regardless of the degree of influence caregivers and patients bring to the use of medical technology, the responsibility for providing information about the advantages and associated risks of various interventions lies with caregivers including midwives. The pursuit of evidence-based practice should be seen in the context of its overall contribution to public health. If, as suggested by Waldenstrom,[42] using evidence-based practice can increase the normal birth rate, then this will ultimately affect maternal health. Foureur[63] contends that midwives' primary public health task is to keep birth normal. Midwifery leadership at unit and service level will be critical in helping create the kind of birth environments that may contribute to keeping birth normal and reducing caesarean section rates. One of midwifery's fundamental roles of instilling confidence in women in the childbearing process must not be lost in the midst of technology-driven care.

Conclusion

It can be a challenge for midwives to go beyond thinking about the individual women and babies they see on a daily basis. As important as it is to think about the care of individuals on a day to day practice level, it can be self-limiting. Midwives need to view their care and the outcomes of it in the context of the broader population of childbearing women. Focussing just on individuals will not allow midwives to see the results of practices that may well be detrimental.

If midwives can re-frame their practice in terms of its public health significance and its contribution to the health of the childbearing population it may provide the impetus for a greater focus on providing evidence-based care, to ask the clinical questions that need to be asked and to find the means by which answers can be found.

I have suggested ways in which midwives can engage in public health issues relevant to their everyday clinical practice, and in so doing re-defined the boundaries of midwifery care. Much of what midwives do can have a profound impact on maternal and infant health both short and long-term, so it is critical they take up the public health challenge for the benefit of the population they serve.

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