

Childbirth in Palestine: Reported Practices and Evidence-based Guidelines

Birzeit University 

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## Reported Practices and Evidence-based Guidelines



Laura Wick and Nahed Mikki

  
BIRZEIT UNIVERSITY

معهد الصحة العامة والمجتمعية  
Institute of Community & Public Health

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## **Reported Practices**

## **and Evidence-based Guidelines**

**Laura Wick and Nahed Mikki**  
*Institute of Community and Public Health*  
*Birzeit University*

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***Study design:***

Laura Wick  
Nahed Mikki  
Hanan Abdul-Rahim Halabi  
Rita Giacaman

***Field work:***

Laura Wick  
Nahed Mikki  
Vartoughy Koukian  
Gaby Abu Zant  
Haleema al-Sabbah  
Iman al-Shaweesh

***Data coding and entry:***

Nahed Mikki  
Adel Takruri

***Data analysis:***

Nahed Mikki  
Laura Wick

***Report writing:***

Laura Wick  
Nahed Mikki

***Document reviewed by:***

Hanan Abdul-Rahim Halabi

---

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e-mail: icph@birzeit.edu

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## **EXECUTIVE SUMMARY & RECOMMENDATIONS**





## EXECUTIVE SUMMARY

### **Introduction:**

This survey documents the reported policies and practices of normal childbirth in maternity facilities in the West Bank (WB), including Jerusalem. It provides information to assess the adequacy of childbirth services in relation to the need for maternal and neonatal care, in order to improve service planning and delivery both in the short-term emergency situation and in the long-term perspective of building a childbirth system. It describes the maternity hospital infrastructure and staffing; it assesses the routine reported practices of normal childbirth in relation to evidence-based care; and it explores providers' perceptions of the effects of the emergency situation on childbirth care and the barriers to the implementation of best practices.

### **Methods:**

A list of all thirty-seven WB maternity hospitals was provided by the Palestinian Ministry of Health. For comparative purposes and a comprehensive overview of maternity hospital utilization, data on staffing, number of births, and workload levels were collected from all facilities during the period of fieldwork (April 2002 to June 2003). In addition, fieldworkers visited twenty-five of these maternity hospitals and interviewed the head obstetrician and midwife about the policies and practices for normal childbirth. The interviews covered all of the governmental and most of the non-governmental (NGO) hospitals, some of the private hospitals and the only UNRWA hospital. Observations related to childbirth care and to the hospital setting were also made during the field visits. The quantitative data from the questionnaires was analyzed using the Statistical Package for the Social Sciences (SPSS 8). The open-ended questions were analyzed according to themes and served to broaden understanding of the barriers to the use of effective practices.

## **Main Findings:**

Maternity hospitals were relatively well-distributed in the three regions of the WB (which, however, did not necessarily mean that access was ensured during the periods of closures). However, the north was the most underserved in maternity facilities in relation to the number of births in the region. Three-fourths of the hospitals belonged to the private and NGO sector. Most of the governmental hospitals had high monthly caseloads and the private hospitals had low caseloads. There were 84 staff obstetricians and 221 midwives working in the 37 hospitals, and only 6 (7%) of the obstetricians were female. The mean ratio of birthing women to midwives was 32 in the governmental hospitals, 18 in the private and 12 in the UNRWA hospital, illustrating that the governmental sector had the lowest proportion of midwives in relation to the largest number of births in the WB.

Certain beneficial practices were regularly utilized, such as midwifery care for low-risk women, freedom of movement and choice of position in labor, non-pharmacological methods of pain relief, prophylactic oxytocics in the third stage, and early initiation of breastfeeding. However, some routine practices for normal childbirth were not consistent with the best evidence. Some interventions classified as harmful or unlikely to be beneficial that were routinely practiced in certain hospitals were: enema and pubic shaving, IV fluids during labor, withholding food and drink, the lithotomy position for giving birth, the liberal use of episiotomy, bladder catheterization and routine suction of the newborn. The presence of a birth companion, a beneficial practice associated with fewer interventions including Caesarean sections, was frequently not permitted in the large hospitals, in spite of their understaffing. The use of oxytocin for induction and augmentation of labor and of pethidine to relieve pain are practices which may have adverse effects on the mother and newborn, depending on the conditions of the birthing environment. These interventions were reported to be frequently applied in most of the maternity facilities. Lack of knowledge, outdated habits, understaffing and overcrowding in certain hospitals were important factors explaining why effective care was not always provided.

**Conclusion:**

This study has identified a gap between reported practices and evidence-based care for normal childbirth in WB maternity facilities. Promoting normal birth and avoiding over-medicalization of the birth process with excessive interventions are particularly important in a situation of conflict and scarce resources. Normal births without unnecessary technical interventions are relatively inexpensive and are less likely to lead to iatrogenic complications, particularly when access to higher levels of care is limited. Using only those practices in routine childbirth care that have been shown to be beneficial and avoiding those that are harmful would improve the quality of care for normal labor and birth. In addition, there is an imbalance in the availability of skilled birth attendants in maternity facilities across the sectors. Given the importance of the governmental sector in the provision of childbirth care to the many pregnant women who cannot afford private services and the significant number of high-risk referral cases, there is an urgent need to improve the quality of care and sustainability of these services. A sufficient number of skilled birth attendants with appropriate attitudes, skills and time to support normal labor and birth are needed for safe childbirth in maternity facilities.

## RECOMMENDATIONS

- Advocate with health policy-makers and health providers for a system of childbirth care based on methods and technology that are scientifically sound and that is accessible and affordable to all women.
- Improve the system of perinatal surveillance in Palestine with effective monitoring and evaluation mechanisms to address constraints in maternal and neonatal health services.
- Establish evidence-based standards of care for low-risk uncomplicated childbirth and emergency obstetric care, in order to improve the quality of care.
- Promote safe alternative settings for low-risk uncomplicated childbirth to alleviate the overcrowding of referral hospitals, in view of improving high-risk and emergency obstetric care.
- Promote training of all types of maternal health providers in physiological childbirth and effective care and aim towards low intervention rates in maternity services.
- Implement beneficial practices and discontinue ineffective and harmful ones. In this particular context, those effective components of care which might be implemented without an increase in the cost of provision are: midwifery care for low-risk uncomplicated births, family member support during labor and birth, promoting freedom of movement and position of choice for labor and birth, permitting oral fluids during labor, restricting frequent use of oxytocin during labor and of episiotomy at birth, promoting non-pharmacological methods of pain relief, eliminating routine suction of the newborn, promoting skin-to-skin contact and early initiation of exclusive breastfeeding.
- Promote effective management and teamwork among the perinatal health providers, both in the community and in maternity facilities.
- Improve the quality of care for normal childbirth in certain maternity facilities by increasing the number of skilled birth attendants, to enable them to provide safe and satisfying childbirth care.

## EXECUTIVE SUMMARY & RECOMMENDATIONS

- Train all health providers in essential obstetric care, including resuscitation of the newborn and appropriate use of childbirth technology.
- Train all midwives in knowledge, skills, attitudes and social support to assist women in giving birth normally and preventing complications.
- Reinforce community midwifery by the training, licensing, supervision and monitoring of skilled birth attendants in the communities who are linked to a referral system and who are offered incentives to provide home-based maternal and neonatal care.
- Expand the resources, capacity and quality of midwifery education. Differentiate between specializations in community midwifery and obstetric nursing for hospital-based high-risk cases to make training appropriate. Provide midwifery teachers opportunities for graduate studies and for research experience. Adapt community midwifery education to the needs of underserved areas.
- Increase the number of skilled midwives and expand their scope of practice, targeting community needs.
- Increase the number and capacity of female obstetricians.
- Raise awareness among families of their right to informed choice, of effective care in pregnancy, childbirth, and the postpartum and of the importance of the perinatal period for the health and well-being of the mother and infant.
- Raise awareness among women of the benefits of low-technology midwifery care for normal childbirth.

كان معدل نسبة عدد الولادات إلى عدد القابلات ٣٢ في المرافق الحكومية، ١٨ في المرافق الخاصة و١٢ في المستشفى التابع لوكالة الغوث. هذا يوضح أن عدد القابلات في المرافق الحكومية قليل مقارنة بعدد الولادات.

كانت بعض الممارسات المفيدة متبعة بانتظام مثل قيام القابلات بتقديم العناية لحالات الولادة قليلة الخطورة، حرية الحركة وحرية اختيار الوضعية خلال مرحلة الطلق، استعمال الوسائل البديلة للأدوية لتخفيف الألم، استعمال الأدوية القابضة للرحم في المرحلة الثالثة والرضاعة الطبيعية المبكرة.

كانت بعض الممارسات المصنفة بالضارة وبعض الممارسات المصنفة بغير المفيدة متبعة بشكل روتيني في بعض المرافق مثل: الحقنة الشرجية، حلق شعر العانة، استعمال السوائل في الوريد، حرمان المرأة من الأكل أو الشرب خلال مرحلة الطلق والولادة، وضعية الولادة برفع الساقين، الاستخدام المفرط لشق العانة، القسطرة للمثانة وشفط المولود الروتيني.

لم يكن مسموحاً بوجود مرافق في عملية الولادة في المرافق الكبيرة بالرغم من قلة الكادر الطبي في هذه المرافق، لقد تم إثبات أن وجود مرافق في عملية الولادة مفيد جداً حيث أنه يقلل من التدخلات الطبية في الولادة كالعملية القيصرية.

لقد أثبت أن الاستعمال الروتيني للطلق الصناعي لاستحثاث وتسريع عملية الطلق، وكذلك استخدام pethidine بشكل روتيني لتخفيف الألم هي ممارسات لها آثار جانبية على الأم والمولود، وبالرغم من ذلك فإن هذه الممارسات كانت تستعمل بكثرة في بعض المرافق.

المقابلات مع مقدمي الخدمة في هذه المرافق كشفت أن قلة المعرفة، العادات القديمة، قلة الكادر والازدحام في المرافق كانت عوامل هامة فسرت سبب عدم إتباع الممارسات المبنية على الأدلة في مرحلة الطلق والولادة.

## الاستنتاجات

لقد كشفت هذه الدراسة عن فارق كبير ما بين الممارسات المتبعة المبلغ عنها في مرافق الضفة الغربية والممارسات المبنية على الأدلة. إن تشجيع الولادة الطبيعية والابتعاد عن استخدام الممارسات الطبية غير الضرورية والتدخلات الكثيرة في مرحلة الطلق والولادة مهمة جداً في حالة الصراع الموجودة وندرة المصادر الحالية.

إن الولادة الطبيعية بدون التدخلات غير الضرورية غير مكلفة مادياً وينتج عنها تعقيدات أقل، خصوصاً إذا كان الوصول إلى المرافق التي تقدم عناية أكثر محدوداً.

إن استعمال الممارسات التي تم إثبات نجاعتها والابتعاد عن الممارسات الضارة كفيل بتحسين نوعية العناية المقدمة خلال مرحلة الطلق والولادة.

لقد أظهر هذا المسح عدم التوازن في توفر الخبرات في الولادة الطبيعية عبر القطاعات المختلفة، حيث أظهر أن هناك ضرورة ملحة لتحسين نوعية الخدمة المقدمة وتوفير عدد كافي من هذه الخبرات في القطاع الحكومي، نظراً لأهمية هذا القطاع في تقديم العناية في مرحلة الحمل والولادة لكثير من النساء اللواتي لا يستطعن تحمل نفقات القطاع الخاص. وكثرة الحالات عالية الخطورة التي تحول لهذا القطاع.

## المخلص التنفيذي

### المقدمة

هذا المسح وثق الممارسات والسياسات المتبعة المبلغ عنها في الولادة الطبيعية في مرافق الولادة في الضفة الغربية بما فيها القدس.

هذا المسح يعطي معلومات لتقييم كفاية خدمات الولادة المقدمة للعناية بالأم والمولود وذلك بهدف تحسين تخطيط هذه الخدمات وتقديمها ليس فقط في حالات الطوارئ ولكن أيضا على المدى البعيد لبناء نظام للولادة. كذلك يصف هذا المسح البنية التحتية والكادر في هذه المرافق، ويقيم الممارسات المتبعة المبلغ عنها في حالة الولادة الطبيعية ويقارنها بالممارسات المبنية على الأدلة، كذلك يعرض هذا المسح رؤيا مقدمي الخدمة وأثر حالة الطوارئ على خدمات الولادة والمعوقات لاستعمال الممارسات المبنية على الأدلة في هذه المرافق.

### المنهجية

تم الحصول على قائمة بالمرافق التي تقدم خدمات الولادة من وزارة الصحة الفلسطينية وكان عددها ٣٧. تم الحصول على معلومات عن الكادر الصحي وعدد الولادات من هذه المرافق جميعها بهدف الحصول على نظرة شمولية وكذلك بهدف المقارنة بينها.

كذلك تم زيارة ٢٥ مرفق من هذا المرافق وفي هذه الزيارات قام الباحثون بعمل مقابلات مع أخصائي النسائية والولادة المسؤول ومع مسؤولة المقابلات في كل مرفق بهدف الحصول على معلومات عن الممارسات والسياسات المتبعة المبلغ عنها في الولادة الطبيعية.

تم عمل هذه المقابلات في كل المرافق الحكومية، معظم المرافق الأهلية، بعض المرافق الخاصة والمستشفى التابع لوكالة الغوث الدولية. خلال هذه المقابلات تم تسجيل الملاحظات على خدمات الولادة وجاهزية المستشفى.

تم تحليل المعلومات الكمية باستخدام برنامج (SPSS)، أما بالنسبة للأسئلة المفتوحة فقد تم تحليلها حسب المفاهيم، هذا وقد ساعدت هذه الأسئلة على فهم المعوقات لاستخدام الممارسات المبنية على الأدلة في الطلق والولادة.

### النتائج

كان توزيع المرافق متساوياً في مناطق الضفة الغربية الثلاث (الوسط والشمال والجنوب)، لكن هذا لا يعني بالضرورة أنها كانت سهلة الوصول خلال فترة الإغلاقات.

كانت منطقة الشمال هي أكثر المناطق فقراً في عدد المرافق بالنسبة لعدد الولادات.

كانت ثلاثة أرباع المرافق خاصة أو أهلية.

كان عدد الولادات الشهري عالياً في معظم المرافق الحكومية بينما كان هذا العدد منخفضاً في المرافق الخاصة.

كان العدد الكلي لأخصائيي النسائية والتوليد الذين يعملون على كادر المرافق ٨٤، بينما كان العدد الكلي للمقابلات ٢٢١ في المرافق السبعة والثلاثين. كان عدد أخصائيات النسائية ٦ (٧٪) من العدد الكلي لأخصائيي النسائية والتوليد.





## **I. INTRODUCTION**

the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million, and the number of people aged 75 and over from 4.5 million to 6.5 million (Office for National Statistics 2000).

There is a growing awareness of the need to address the needs of older people, and the UK Government has set out a strategy for the 21st century (Department of Health 1999). The strategy is based on the concept of 'active ageing', which is defined as 'the process of optimising opportunities for health, participation in society, and security in old age' (Department of Health 1999, p. 1).

The strategy is based on three pillars: health, participation, and security. Health is defined as 'the state of being free from disease and disability, and having the capacity to enjoy life' (Department of Health 1999, p. 1). Participation is defined as 'the ability to take part in the activities of everyday life' (Department of Health 1999, p. 1). Security is defined as 'the ability to meet the needs of everyday life' (Department of Health 1999, p. 1).

The strategy is based on the principle that older people should be able to live independently and actively in their own homes for as long as possible. This requires a range of services and support, including housing, transport, and social care. The strategy also emphasizes the importance of promoting the health and well-being of older people, and of encouraging them to participate in the activities of everyday life.

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## I. INTRODUCTION

Childbirth is both a frequent event and a significant experience for families and communities in Palestine. However, rapid shifts in the place of birth due to lack of freedom of movement and the severe economic situation have had far-reaching implications for birth policies and practices, for the maternal health care system, and for women's experiences of childbirth. This survey was undertaken to document the reported policies and practices of normal childbirth in maternity facilities in the West Bank (WB) including Jerusalem.

The parameters of effective childbirth care have been well established<sup>1</sup>, yet the gap between evidence and practice persists, in both developed and developing countries. The integration of beneficial practices into a developing country setting is not a simple process, especially in maternity facilities where intrapartum care faces many challenges.

Childbirth practices have been classified according to the strength of research evidence, categorizing them along the continuum of beneficial to harmful forms of care.<sup>2</sup> The care that a birthing woman receives during this period has an important bearing on birth outcomes, as harmful practices might interfere with her health, autonomy, access to her baby, and the physiological process of birth and infant health. The way in which women give birth and their experience of it is crucial for the health of the mother and the newborn. In addition, maternity care has profound social and psychological consequences for future generations, affecting long-term health and emotional well-being.<sup>3</sup>

However, in spite of the frequency of childbirth and its importance as a critical time in the life of the mother and the newborn, the components of routine childbirth care in Palestine have never been assessed.

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<sup>1</sup> The Cochrane Library, Issue 4, 2004. Chichester, UK: John Wiley & Sons, Ltd.

<sup>2</sup> Enkin M, Keirse M, Neilson J. et al. 2000. *A Guide to Effective Care in Pregnancy and Childbirth*, 3rd ed. Oxford, UK: Oxford University Press.

<sup>3</sup> Page L. "Human resources for maternity care: the present system in Brazil, Japan, North America, Western Europe and New Zealand." *Int J Gynec Obstet* 2001; 75: S81-S88.

The purpose of the study is to bring the policies and practices of normal childbirth in WB maternity facilities to the attention of health policy-makers and planners, health providers, donor organizations, civil society, and women themselves, and ultimately to improve childbirth care.

This survey aims to provide information to assess the adequacy of childbirth service provision in relation to the need for maternal and neonatal care, in order to improve services in the short-term emergency situation and in the long-term perspective of building a childbirth system. It investigates the policies and practices of normal childbirth in WB maternity facilities and assesses them in relation to recommended evidence-based care and to the current political and economic context. It explores the health providers' perceptions of structural and human barriers to improved maternity care.

It includes an overview of issues pertaining to childbirth in the WB, the results of the findings of the survey, a critical analysis of the findings, and recommendations for future actions.

Although the baseline data provided by this study describes the reported practices by health providers and thus is only a partial assessment of the actual childbirth care, it nevertheless provides valuable information for maternity care planning. It also helps to identify the diverse needs of the regions and the different types of health providers and maternity services. It discusses childbirth practices and the possibility for improving them within the current structure of the health system and within the context of the Palestinian geo-political landscape. It raises relevant questions for a platform of debate for a wide range of persons concerned with childbirth care and its outcomes in Palestine. Finally, it attempts to analyze birthing conditions in maternity facilities with a kaleidoscope view of both the short-term emergency situation and the long-term building of a sustainable perinatal health care system.

## **II. OVERVIEW AND OBJECTIVES**



## II. OVERVIEW AND OBJECTIVES

The objectives of the study were:

- To document the reported policies and practices of normal childbirth in maternity facilities of the WB, including Jerusalem.
- To assess the reported policies and practices in relation to evidence-based childbirth care according to Enkin et al.<sup>4</sup>
- To assess the effects of the emergency situation on the provision of childbirth care.
- To identify the structural barriers to implementation of effective care.
- To raise recommendations aiming to improve perinatal care (the period including the third trimester of pregnancy, birth and the first seven days of an infant's life).

The first part of this report will give an overview of some general issues relevant to normal childbirth care in all countries, such as access to maternity services and the use of evidence-based practices. Because childbirth practices are not only shaped by health factors, but also by social, political, economic and cultural ones, relevant background information on childbirth in Palestine is described, in order to better understand the process of change in patterns of care and place of birth. The roles of the different types of maternal health providers, their training and their working conditions will be considered in relation to patterns of care and to a sustainable health system. This study aims to approach childbirth care from a systemic perspective, in spite of the current context of fragmentation of geographical areas, health services, and policy-makers cut off from each other and from the people.

The second part of the report will present the design and methodology of the study and the main findings. The description of the size, type, location, and staffing of the hospitals is based on a survey of all the WB maternity facilities, including Jerusalem, during the period of study. The section on the structure of maternity

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<sup>4</sup> Enkin M et al., pp. 255-428.

facilities and the routine practices during normal childbirth is based on information from the twenty-five WB maternity facilities visited between April 2002 and June 2003 that was collected through semi-structured interviews with the head obstetrician and head midwife in each facility. It describes the health providers' reported practices and interventions during normal childbirth and assesses them in relation to recommended practices based on scientific evidence. Providers' perceptions and obstacles to adopting best practices are described in the main findings and are used in the discussion to better understand why certain practices are applied.



**III. RECENT HISTORICAL BACKGROUND  
TO CHILDBIRTH**

the 1990s, the number of people with a disability in the United States has increased by 25% (U.S. Census Bureau 2000). The number of people with a disability in the United States is expected to increase to 35% by the year 2020 (U.S. Census Bureau 2000).

As the number of people with a disability increases, the need for accessible information and communication technologies (ICT) increases. The purpose of this study was to investigate the usability of a web-based system for people with a disability. The study was conducted with people with a disability who were using a web-based system for the first time. The study was conducted with people with a disability who were using a web-based system for the first time.

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### III. RECENT HISTORICAL BACKGROUND TO CHILDBIRTH

#### Birth attendants in the past

In Palestine, women have been attending births for centuries. This long tradition has continued in part until the present period, but with rapid changes in the past decade. During the Ottoman period the *dayat* (the Arabic word used for traditional birth attendants) were, for the most part, the primary providers of childbirth care. They learned their skills by apprenticeship, usually from their mothers, and were very accessible to the predominantly rural population. The British Mandate period (1917-1944) brought with it the introduction of Western medicine into Palestine, primarily through the form of missionary institutions,<sup>5</sup> where European colonial powers were vying for political and religious influence through the establishment of health services for the Palestinian urban population. This process of penetration has continued to the present times, where indigenous medicine still exists, even though biomedicine is today by far the most pervasive paradigm.<sup>6</sup> One influence of the British medical system was the training and licensing of midwives, who numbered several hundred in the 1940s,<sup>7</sup> even though many *dayat* continued to function unlicensed as birth attendants outside of the hospitals. Under Jordanian rule (1948-1967), the community midwives and the *dayat* in the WB were licensed according to the Jordanian Public Health Law of 1966<sup>8</sup> (which remains in effect to the present day, until the time when the Palestinian Legislative Council ratifies the new public health law).

The maternity hospitals, some of them dating back to the early twentieth century, were created during this period of development of the health care system in Palestine. At the end of the Ottoman

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<sup>5</sup> Sufian S. 2002. "Arab health care during the British Mandate, 1920-1947" in T Barnea and R Hussein. (eds.) *Separate and Cooperate, Cooperate and Separate: The Disengagement of the Palestinian Health Care System from Israel and Its Emergence as an Independent System*. Westport, Connecticut: Praeger Press, p. 15.

<sup>6</sup> Giacaman R. 1988. *Life and Health in Three Palestinian Villages*. London: Ithaca Press, p. 147.

<sup>7</sup> Sufian S, pp. 17-18.

<sup>8</sup> Communication with Dr. Nadim Toubassi, Director of Primary Health Care, Ministry of Health, May 2003.

period, hospital care was provided to the Palestinians by two government hospitals in Jerusalem and Nablus and twenty-two mission hospitals operated by European charities in Palestinian cities. In 1945 there were ten governmental hospitals in Palestine.<sup>9</sup>

### **Childbirth policy under the Israeli administration**

Since the Israeli occupation of the WB and GS in 1967, the Israeli Ministry of Defense took charge of the Palestinian health services, where they were responsible, in addition to all other aspects of medical care, for the maternity care provided by the government health services. Their explicit policy was to promote hospitalization of childbirth, in spite of the fact that the process and outcomes of childbirth care had never been assessed. Little was known about the practices and safety of childbirth, either in the institutions or in the homes.<sup>10</sup> Two strategies were used to implement this policy of shifting the place of birth from the home to the hospital. The first included the reduction of fees for deliveries in government hospitals.<sup>11</sup> Fees were lowered first in 1984 and again in 1991, when they were reduced to the equivalent of \$43.00.<sup>12</sup> In addition, the Israeli Civil Administration planned to phase out the community midwives and *dayat* who assisted home births, and continued licensing the existing ones only as a stop-gap measure until all births would be institutionalized. At the same time, little was done during this period to improve the infrastructure in the maternity wards of the governmental hospitals or to increase the maternity bed capacity or the staff to meet the greater demand.<sup>13</sup> As has been shown in other countries, institutionalization of childbirth alone does not necessarily result in better outcomes.<sup>14</sup> In a description of

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<sup>9</sup> Reiss N. 1991. *Health Care of the Arabs of Israel*. Boulder: Westview Press, p. 20.

<sup>10</sup> For further discussion of childbirth policy in the OPT, see Giacaman R et al "The politics of childbirth in ongoing conflict: policies or de facto practices?" *Health Policy and Planning* (accepted for publication, December 2004).

<sup>11</sup> Communication with Dr. Nadim Toubassi, Director of Primary Health Care, MOH, May 2003.

<sup>12</sup> Acker, C. 2002. "From Home Delivery to Hospital Delivery: The Transformation of Mother and Child Care in the West Bank" in T Barnea and R Hussein (eds.), p. 92.

<sup>13</sup> Lori A. "A virus knows no borders." [www.haaretzdaily.com/hasen/objects/pages/PrintArticleEEEn.jhtml?itemNo=195307\\_05/06/1423](http://www.haaretzdaily.com/hasen/objects/pages/PrintArticleEEEn.jhtml?itemNo=195307_05/06/1423): 4-5.

<sup>14</sup> Miller S. "Quality of care in institutionalized deliveries: the paradox of the Dominican Republic." *Int J Gynecol Obstet* 2003; 82: 89-103.

Israeli childbirth policy for Palestine, no mention was made of the health budget allotted to maternity care.<sup>15</sup> In addition, no records of the health budget were handed over from the Israeli Civil Administration to the Palestinian Ministry of Health (MOH) when they took over the responsibility for the health sector in 1994.<sup>16</sup>

### **Childbirth policy under the Palestinian Ministry of Health**

In November 1994, the Palestinian MOH took over responsibility for the Palestinian health services. They continued the same childbirth policy initiated under the Israeli administration of encouraging hospital birth by reducing the cost of maternity care in government hospitals, by phasing out the licensure of community midwives, both *dayat* and formally-trained midwives, and by the discourse equating safe childbirth and the declining infant mortality rate with hospitalization of birth. In addition, the MOH encouraged the establishment of new private maternity hospitals, with the idea of increasing access to hospital care and permitting the private sector to offer more comfortable conditions to those who could pay. The percentage of births in the WB taking place in private maternity hospitals rose from 28% in 1996 to 40% in 2000.<sup>17</sup> Seventy-two percent of the prenatal care in the WB was provided by the private sector.<sup>18</sup> At the outset the MOH had many other preoccupations and it was not able to assess the quality of care of maternity hospitals before the outbreak of the Second *Intifada*, when crisis management replaced any initial attempts of regulation and upgrading standards.

The policy of the MOH of promoting the private sector for maternity care raises certain public health concerns. A large private-for-profit sector tends to create a two-tiered system, where good quality care is available for those who can pay, while less good quality in the government sector is for the poor, who are most in need of effective health care due to the higher risk of health problems that tend to accompany poverty. Experience in other countries has shown that sometimes the private sector, in addition to accentuating inequality in health care, makes it difficult to

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<sup>15</sup> Acker C, pp. 87-98.

<sup>16</sup> Schoenbaum M, Afifi A, Deckelbaum R. 2003. *Strengthening the Palestinian Health System*. Santa Monica, CA: RAND, p. 9.

<sup>17</sup> Palestinian Central Bureau of Statistics (PCBS). 2001. *Health Survey 2000. Final Report*. Ramallah: PCBS, p. 135.

<sup>18</sup> *Ibid*, p. 135.

regulate the quality of care provided.<sup>19</sup> While the private sector plays an important role in providing access to health services, ongoing efforts and resources are needed to upgrade the governmental sector to ensure equitable maternal health care.

The strategy of institutionalizing normal childbirth, among other factors, resulted in the hospital becoming the routine place of birth in Palestine. This shift was due to a variety of complex reasons, including the number of services and of physicians, the marketing of childbirth technology, and women's health-seeking behaviors. Whereas in the early 1990s about one-third of women in the WB, particularly in the north and the south of the country, continued to give birth at home,<sup>20</sup> by 1999, 94% of births in the WB were in maternity hospitals (see Fig. 1 p.37).

### **Situation of childbirth since the Second Uprising of September 2000**

Since 2000, extensive curfews and closures resulted in a severe crisis of lack of access to medical facilities. Particularly vulnerable were pregnant women and women in labor. This situation has again changed the place of childbirth for some women to the home, although in this period it was frequently unplanned and not by choice, but rather imposed by the hundreds of checkpoints cutting off villages from the city and one city from the other.

Some women resorted once again to home birth, seeking out a birth attendant as best they could; some had horrific experiences trying to get through checkpoints,<sup>21</sup> and others were able to reach maternity facilities.

But, wherever the place of birth, anxiety had become a major part of the birthing experience for the entire family, and certainly not without consequences for the fetus or the newborn.

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<sup>19</sup> Van Damme W, Van Lerberghe W, and Boelaert M. "Primary health care vs. emergency medical assistance: a conceptual framework." *Health Policy and Planning* 2002; 17 (1): 5.

<sup>20</sup> The World Bank. 1998. *West Bank and Gaza, Medium-Term Development Strategy for the Health Sector*. Washington, DC: The World Bank.

<sup>21</sup> For excellent journalistic reporting of some of these cases, see A. Hass and G. Levy in Ha'aretz. Several accounts can also be viewed in a video produced by Arasoughly A. *Birth at the checkpoint*. Ramallah: Palestine Ministry of Health and UNFPA, 2002.

Geographic location has been the main consideration for women of where to seek health care and for policy-makers and providers of how to plan for maternity services. This emphasis on geographic access has been particularly apparent since the Second *Intifada*, but actually has been going on for decades, with the brief respite of the post-Oslo period, where interest in the quality of care and the profit from private health care gave rise to the expansion of maternity facilities. But the overwhelming concern soon reverted back to the time required for travel, the number of checkpoints to be crossed, and the danger involved in reaching a maternity care provider.

Health providers responded by trying to cope in different ways with the lack of mobility, the increasing poverty and the need for services. The MOH waived all fees for delivery in government hospitals with the Al Aqsa Insurance. Up to the current time, normal or operative delivery in these hospitals is free of charge, and more and more women utilize this sector for that reason. Another coping strategy came from a group of health providers (including obstetricians, physicians, midwives, and nurses) who formed a network to give advice over the telephone during curfews and sieges to women and birth attendants needing help and support in assisting births.<sup>22</sup> Inexperienced family members and other birth attendants facing complications could thus be instructed over the phone what to do. While none of these solutions were sufficient, the solidarity, emotional support and professional input obviously helped many women through what had become a traumatic experience.

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<sup>22</sup> Communication with Dr. Salwa Najjab, 2001.





## **IV. OVERVIEW OF CHILDBIRTH ISSUES**



## IV. OVERVIEW OF CHILDBIRTH ISSUES

### **Importance of access to essential obstetric care in maternity facilities**

Access to maternity facilities that provide effective essential obstetric care is crucial to reduce the tragedy of maternal mortality and morbidity. Many obstetric complications cannot be predicted or prevented during the pregnancy, but can be effectively treated if timely access to essential obstetric care is available.<sup>23</sup> Thus, while most births are normal, 15% of low-risk pregnant women will have complications and need such care. Reaching higher levels of care where effective essential obstetric care is available is the only way to save lives when serious complications occur, and such access is currently a key problem in Palestine.

There are two types of barriers to quality obstetric care in Palestine. First are the barriers of physical access related to the Israeli occupation. Closures and curfews have all too frequently denied pregnant women and newborns the basic human right of access to health care. Severe economic hardship resulting from the occupation has limited even further pregnant women's access to quality maternity care. As long as this situation continues to exist, safe childbirth will never be a reality for Palestinian women. Thus advocacy for safe motherhood needs first and foremost to focus at the political level on changing the situation on the ground which is the root cause of poor maternal and newborn health. The second type of barrier to quality obstetric care, although accentuated by the barriers of the occupation, is related to the internal functioning of the Palestinian health care system. These obstacles, resulting from both lack of mobility and from internal problems in the provision of health care, result in an urgent need to address how maternity care is currently provided.<sup>24</sup>

Quality perinatal care is realizable only if there is a commitment at all levels of the health care system. Motivation of policy-makers

<sup>23</sup> Donnay F. "Maternal survival in developing countries: what has been done, what can be achieved in the next decade." *Int J Gynecol Obstet* 2000; 70: 92.

<sup>24</sup> For further analysis of the health sector in general and the contextual and systemic barriers to health care, see Pfeiffer M. 2001. *Vulnerability and the International Health Response in the West Bank and Gaza Strip*. Jerusalem and Rome: WHO and Peacepath Consulting.

ers and providers has been shown to be a necessary element in promoting change.<sup>25</sup> Ensuring quality in essential obstetric and normal childbirth care requires acceptable working conditions that maintain competent specialists and other health professionals within the hospital system. While limited resources are often an argument justifying high caseloads and understaffed facilities, improving the quality of obstetric care necessitates adequate and appropriate human resources. In the words of one researcher, "if funding agencies remain insufficiently concerned in contributing to the development of facilities where basic obstetrics can be practiced, if health authorities do not encourage and support the training of adequate health professionals and their maintenance in first referral hospitals by guaranteeing them motivating working conditions and a satisfactory salary, and if obstetricians do not become conscious of the fact that their mission first of all is to make available high-quality essential obstetric services, the Safe Motherhood Initiative may well remain an orphan for the next ten years."<sup>26</sup>

## **Evidence-based childbirth policies**

### **What is evidence-based childbirth care?**

While clear evidence exists about which childbirth practices are beneficial and which are harmful, how to put the evidence into practice in different contexts and how to provide informed choice and individualized care along with safety continues to be a challenge in both developed and developing countries. Awareness of this issue has come from a variety of groups who are motivated by different interests: a concern with the continuing high rate of maternal and neonatal mortality and morbidity particularly in developing countries, women's dissatisfaction with their experience of childbirth care, policy-makers' concern with the rising costs of health care in general and the increasing use of high-tech obstetrical interventions (including the 'Caesarean epidemic'), maternity health providers' professional interests, and the recognized gap between the forms of care that are known to be effective and

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<sup>25</sup> Fathala M. Good anatomy does not mean good physiology: a commentary. *Int J Gynecol Obstet* 2003; 8: 104-106.

<sup>26</sup> Weil O and Fernandez H. "Is safe motherhood an orphan initiative?" *The Lancet* 1999; 354: 943.

the actual practices.<sup>27</sup> Basing standards of practice on scientific evidence has become a primary objective of current health care provision. Evidence-based clinical practice has been described as "the judicious use of the best evidence available so that the clinician and the patient arrive at the best decision, taking into account the needs and values of the individual patient."<sup>28</sup> Thus, decision-making about the most effective care during childbirth should involve finding out what is important to the woman and what is possible in the particular context of care, using information from the clinical history and the clinical examination, and considering these factors in the light of the best available scientific evidence.<sup>29</sup> *The Cochrane Library* provides a comprehensive database of the evidence of many interventions during childbirth.<sup>30</sup> The authors described two principles of effective childbirth care. First, that the only justification for practices that restrict a woman's autonomy, her freedom of choice, and her access to her baby would be clear evidence that these practices did more harm than good. Secondly, any interference with the natural process of pregnancy and childbirth should also be shown to do more good than harm.<sup>31</sup> The World Health Organization (WHO) has made recommendations for care during normal birth on the basis of this evidence.<sup>32</sup>

### **The implementation of evidence-based care**

The implementation of best practices faces many obstacles,<sup>33</sup> particularly in normal childbirth care. Standards of practice in both developed and developing countries are not necessarily based on evidence of effectiveness. Many non-medical factors influence actual practice, such as lack of commitment of policy-makers to allocate sufficient resources and importance, financial interests of

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<sup>27</sup> Enkin M et al., p. 3.

<sup>28</sup> Sackett D, Rosenberg W, Gray J, Haynes R, Richardson W. "Evidence-based medicine: what it is and what it isn't." *British Medical Journal* 1996; 312: 71.

<sup>29</sup> Page L. 2000. "Putting Science and Sensitivity into Practice" in L Page. *The New Midwifery*. Edinburgh: Churchill Livingstone, pp. 1-44.

<sup>30</sup> The Cochrane Library, Issue 4, 2004. Chichester, UK: John Wiley & Sons, Ltd. This research evidence forms the basis for Enkin's classification of practices and for the *WHO Reproductive Health Library* No. 7, 2004.

<sup>31</sup> Enkin M et al., p. 486.

<sup>32</sup> World Health Organization (WHO). 1996. *Care in Normal Birth: A Practical Guide*. Geneva: WHO.

<sup>33</sup> Haynes B. "Barriers and bridges to evidence based clinical practice." *British Medical Journal* 1998; 317; 273-276.

health providers and hospitals, convenience of the health providers, the type of birth attendant, where the obstetricians were trained, and fear of malpractice suits,<sup>34</sup> to mention only a few. This is evident in the Caesarean section rate in the US, for example, where it is estimated by one research group that the 475,000 unnecessary Caesarean sections in one year resulted in 25-100 avoidable maternal deaths, approximately 25,000 serious maternal infections, and 1.1 million hospital days at a cost of over \$1 billion.<sup>35</sup> This epidemic has also hit developing countries, where Brazil, for example, has a Caesarean rate of 36% which is more than twice the recommended rate by the WHO of 15%.<sup>36</sup> Caesarean operations save lives and prevent morbidity when indicated. However, when applied unnecessarily, they can be injurious to maternal and newborn health.

Major unnecessary interventions during childbirth sometimes result from the patterns of care during normal childbirth. Studies have shown that one unnecessary intervention in the physiological process of childbirth often leads to a "cascade of interventions",<sup>37</sup> which may at the end of the spiral necessitate a Caesarean section. For example, the routine use of oxytocin during the first stage of labor to speed up the delivery may lead to hyperstimulation of the uterus, which in turn may cause fetal distress and require a Caesarean operation.

### **The importance of evidence-based childbirth care in Palestine**

The situation in Palestine, in particular, necessitates the provision of effective and efficient forms of perinatal care for the following reasons:

1. Access to health care is unpredictable and frequently impeded, and the availability of emergency obstetric care cannot always be guaranteed. Restrictions on movement have had severe consequences for perinatal health.

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<sup>34</sup> Wagner M. "The public health versus clinical approaches to maternity services: the emperor has no clothes." *The Journal of Public Health Policy* 1998; 19 (1): 25-35.

<sup>35</sup> Shearer E. "Cesarean section: medical benefits and costs." *Social Science and Medicine* 1993; 37 (10): 1229.

<sup>36</sup> Hopkins K. "Are Brazilian women really choosing to deliver by cesarean?" *Social Science and Medicine* 2000; 51: 725.

<sup>37</sup> For a descriptive diagram of the chains of technological, diagnostic and treatment interventions, see World Health Organization. 1985. *Having a Baby in Europe*. WHO Regional Office. Copenhagen: WHO, pp. 97-98.

2. The severe economic crisis, the scarce financial and human resources for perinatal health care, and the decreasing health care coverage and follow-up require the use of best practices to avoid complications.
3. Unnecessary interventions in the physiological process of childbirth frequently require access to higher levels of care for follow-up of complications and are a waste of limited resources.
4. Unlike most Western countries, the average family size is four to five children and women give birth several times. Recurrent interventions such as repeated Caesarean sections increase the risk for the mother and newborn. The long-term consequences of a rapidly increasing Caesarean section rate on the maternal and newborn health of a population with high fertility are unknown.

### **Promoting normal childbirth**

Maximizing the opportunity for normal childbirth by facilitating the physiological process of labor and birth is the most important strategy in the current context, in addition to the training of a large number of community-based health providers in obstetric first aid, which is being addressed by several on-going projects. Less attention has been paid to what are the components of care and the enabling environment that facilitates normal birth for low-risk pregnant women.

Using beneficial practices and avoiding harmful ones is essential to keeping birth normal. Effective childbirth care, which limits unnecessary interventions in a context where access to higher levels of care cannot be ensured, may save lives.

It is not only an issue related to women and newborn's satisfaction, but also to their survival. Promoting normal childbirth, breastfeeding and bonding between the mother and newborn are very effective health care strategies, both in terms of prevention of complications and in terms of cost and limited resources.

Normal birth requires health providers and women who view low-risk childbirth as a physiological process rather than a pathological one. Awareness and implementation of best practices necessi-

tates up-to-date information, teamwork among the different types of practitioners, and commitment at all levels to improving the quality of care. It depends on birth attendants or support persons who have the attitudes, skills and time to encourage women to give birth normally. It needs management structures which facilitate the process of normal labor rather than intervention. Finally, in the longer term, it addresses health promotion and prevention during the life cycle as an integral part of maternity care.

The challenge of childbirth policy is to provide effective care for all women that is at the same time adapted to the individual needs and choices of each one. This conceptual framework necessitates in-depth informed debate with all the actors in the childbirth process as to which objectives of care are given more priority: safety, women's experience of childbirth, the short-term outcomes or the long-term ones, etc.<sup>38</sup> In addition, the whole issue of women's choice is a complex one, when different societal and ideological pressures are constantly limiting their arena of choice. This is particularly true in developing countries, where due to limitations in resources, women frequently do not have the choice of place of birth or provider, and their agency in childbirth is enacted in more subtle ways.

Without country-specific information on routine childbirth practices and the context of care, global initiatives such as Safe Motherhood or Women-Friendly Health Services risk being inappropriate or irrelevant. They need to be adapted to the particular regional context by local participants, who understand the constraints, what works and doesn't work, and what might be sustainable.

Maternal health care, in particular, needs to be planned and assessed with a multidisciplinary approach and an inside regard. Unlike some other types of health care provision where the clinical aspect is the most important, in maternity care the psychosocial needs are as crucial as the physiological components,<sup>39</sup> which is why the context of maternity care is so crucial to understand.

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<sup>38</sup> Enkin M et al., p. 256.

<sup>39</sup> National Childbirth Trust, Royal College of Midwives, Royal College of Obstetricians and Gynecologists. 2001. *Modernising Maternity Care*. London: National Childbirth Trust, p. 9.



## Perinatal health services

### Perinatal and health service indicators

Childbirth in the past decade in Palestine has undergone rapid changes related to both systemic internal factors in the development of the Palestinian health care system and also to the environment of on-going conflict and limited access to maternity care. The following table gives an overview of some health indicators for Palestine prior to the outbreak of the Second *Intifada* in September 2000 and in 2004, which are important both for assessing the impact of the emergency situation and for showing trends and characteristics for long-term planning in perinatal health.

**Table 1: Perinatal and health service indicators in Palestine**

Indicator	PCBS <i>Health Survey</i> 2000	PCBS <i>DHS</i> 2004
total population	3,150,065	3,647,875
population growth rate	3.6%	3.5%
maternal mortality rate	70-80 per 100,000	NA
total fertility rate	5.9	5.6
female median age at first marriage	18 years	18 years
infant mortality rate	25.5 per 1,000 live births	25.2 per 1,000 live births
prenatal care coverage	95.6%	96.5%
deliveries in health institutions	94.8%	96.3%
Caesarean section rate	8.8%	12.4%
postnatal care coverage	26.3%	34.5%
mean duration of breastfeeding	11.1 months	9.9 months

### Prenatal care

As indicated above, prior to September 2002, prenatal care coverage was high. In the WB pregnant women received prenatal care primarily from physicians, with only 10% from midwives or nurses, whereas the majority in the GS received prenatal care from midwives and nurses.<sup>40</sup> (This difference can be explained in part by the larger percentage of women in the GS with refugee status who utilize UNRWA services, where midwives provide low-

<sup>40</sup> PCBS, p. 135.

risk prenatal care.) In addition, prior to September 2000, most prenatal care (72%) was provided by the private sector, which women chose primarily due to their perception of better quality of services in this sector. The pregnancy complications that women reported in the WB included 28% urinary tract infection, 7% pre-mature delivery, 6% high blood pressure, 5% vaginal bleeding, 2% eclampsia, and 1% gestational diabetes.<sup>41</sup>

### **Place of birth and type of birth attendant in the WB**

Most births (95%) prior to the Second *Intifada* in the WB were assisted by qualified birth attendants, 51% by physicians and 44% by midwives or nurses, and took place primarily in maternity facilities (92%)<sup>42</sup> belonging to one of the four providers of perinatal health services: the government sector transferred to the Palestinian MOH from the Israeli administration in 1994, the non-governmental (NGO) sector, the private sector and UNRWA.<sup>43</sup> According to one report, in Palestine 31% of maternity hospital beds were provided by the governmental sector, 33% by the NGO sector, and 37% by the private sector.<sup>44</sup> The MOH reports 5.8 maternity beds/ 10,000 women aged 15-49 years.<sup>45</sup>

Home births in the WB decreased rapidly in the past decade, only to increase again in the past two years due to the lack of access to maternity facilities. In 1996, PCBS reports that 18% of pregnant women in the WB gave birth at home; in 1997 thirteen percent of WB births took place at home.<sup>46</sup> From 2001-2002 the MOH indicates that home births in the WB increased from 8% to 14%.<sup>47</sup>

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<sup>41</sup> PCBS, pp. 134-138.

<sup>42</sup> PCBS, p. 144.

<sup>43</sup> In 1999, 38 hospitals were reported in the West Bank, but not all with maternity services. Many small private maternity hospitals are registered with a small number of beds. This report recognizes the need for hospitals in general to pay more attention to quality control, to develop referral systems, and to develop staff retention and motivation mechanisms. Health Development Information Project (HDIP). *The Future of Hospital Services in Palestine: A Coordination Workshop on Hospital Care*. Ramallah: HDIP, 1999.

<sup>44</sup> Schoenbaum M et al., p. 62.

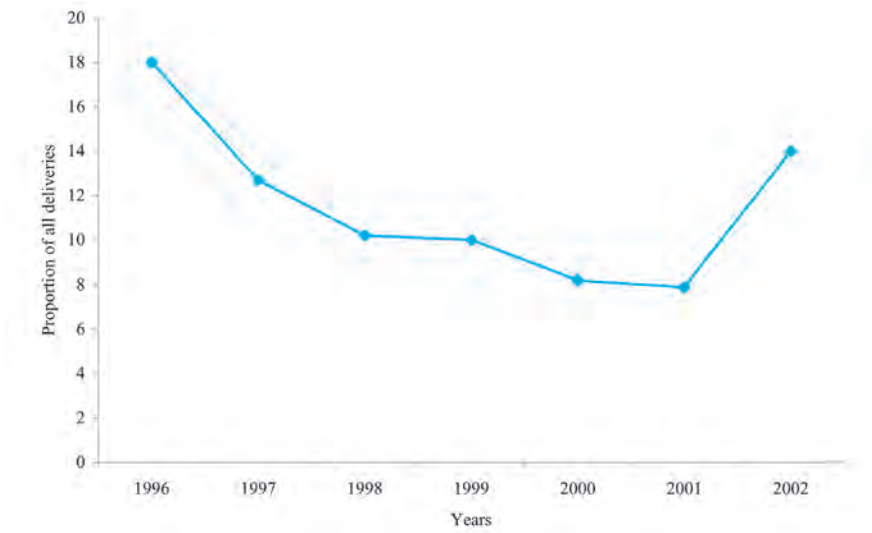
<sup>45</sup> Ministry of Health-HMIS. 2003. *Health Indicators in Palestine 2002*. Nablus: MOH, p. lx.

<sup>46</sup> PCBS, p. 142.

<sup>47</sup> Ministry of Health-HMIS, p. 31.

Few trained birth attendants had sufficient experience and training in home births when curfews and closures tightened the already limited access to services during the Second *Intifada*. Health providers were then frequently called upon to assist births at home with little equipment, back-up or knowledge of the particularities of home birth. Whereas some countries have an organized infrastructure for home birth services (The Netherlands or Great Britain, for example), this was not the case in the WB where the MOH policy was to promote hospital births for all women and to phase out the community midwives. Alternative plans had not been prepared for this eventuality of providing safe home births.

**Figure 1: Changes in the proportions of home births in the WB from 1996-2002**



(Data for this graph was taken from the MOH, *Annual Reports for 1996-2002*.)

In 2002, there were a total of 94,406 reported births, with 52,670 in the WB and 41,736 in GS.<sup>48</sup> The highest percentage of live births in the West Bank in 2002 was in the Hebron district, followed by Nablus, then Jenin, then Ramallah. About one-half of

<sup>48</sup> Ministry of Health-HMIS, p. 17.

hospital births in the WB in 2002 took place in governmental maternity facilities, with the remainder in non-governmental or private hospitals or the one UNRWA hospital in Qalqilia.<sup>49</sup>

### **Mode of delivery**

According to PCBS in 1997-2000, 72% of women said they had a normal birth. The frequency of operational vaginal deliveries (vacuum extractor and forceps) that was reported was 2.4% and of episiotomy was 16.4%.<sup>50</sup> The Caesarean section rate for the WB was 9.4%. The overall Caesarean rate for Palestine was reported to have risen from 6.6% in 1996 to 8.8% in 2000<sup>51</sup> and to 12.4% in 2004.<sup>52</sup>

Data would indicate that there has been a considerable increase in the past few years in the number of Caesarean sections performed in WB maternity hospitals.

The MOH reported a Caesarean section rate of 15.8% (3,796 operations) in the WB governmental hospitals in 2002 with a range between 18.7% in Tulkarem and Rafidia hospitals, 18.4% in the Jenin hospital and 11.2% in the Hebron hospital.<sup>53</sup> This would appear to be a rapid increase from the previous years.

(The MOH Caesarean section rate of 15.8% is limited to the West Bank governmental hospitals and does not include the operative rates of the hospitals in the other sectors.)

### **Postnatal care**

While most hospitals in this study stated that they have a policy of keeping mothers and newborns for twenty-four hours after the birth, PCBS states that 34% of mothers in Palestine reported having left the hospital before twenty-four hours after the birth,<sup>54</sup> and this has certainly increased since September 2000. In addition,

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<sup>49</sup> Ministry of Health-HMIS, p. 31.

<sup>50</sup> PCBS, p. 146.

<sup>51</sup> PCBS, p. 146.

<sup>52</sup> PCBS. *Demographic Health Survey 2004*, Press Release.

<sup>53</sup> Ministry of Health-HMIS, p. 116.

<sup>54</sup> PCBS. 2001. *Health Survey 2000. Final Report*, p. 147.

ten percent of newborns in the WB are reported to be low birth weight,<sup>55</sup> indicating a particular need for postnatal surveillance.

PCBS stated that only 29% of women in the WB reported having received postnatal care during the first six weeks after childbirth, primarily from obstetricians, with midwives or nurses providing only 2% of the care.<sup>56</sup> As the time of the postnatal visit was not specified, it would appear that many women and newborns did not receive any postnatal care during the first week after delivery, when complications are most likely to occur.

Only 5% of women in the WB reported having received a home visit by a health provider, primarily in the refugee camps. Twenty-seven per cent reported having had at least one health problem after childbirth, indicating high morbidity: 14% of women reported breast inflammation, 11% reported high fever, 10% reported bad odor of the vaginal discharge, 4% reported abnormal bleeding, and 3% reported convulsions. Sixty-two per cent of these women with postpartum complications were treated in the private sector, 25% by governmental, non-governmental, or UNRWA health services, and 13% took over-the-counter medications without consulting a health provider.<sup>57</sup>

## **Human resources for childbirth care**

### **The roles of caregivers**

In the current situation of crisis management, it is quite amazing how well hospitals function with daily obstacles to provision of routine services, such as health providers not reaching their place of work, disruption in the supply of medications and the maintenance of equipment, and in some cases, being under curfew and attack. Health care providers have done a remarkable job under dangerous and exhausting conditions. This determination and achievement should encourage health planners and all who are involved in childbirth to focus on setting standards and implementing the most effective maternity care under the current circumstances with the best utilization of health resources.

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<sup>55</sup> Ministry of Health-HMIS, p. lviii.

<sup>56</sup> PCBS, p. 148.

<sup>57</sup> PCBS, p. 151.

While quality maternity care is not restricted to one type of provider or to one sex, midwives, in general, are the health practitioners specialized in the care of women and newborns throughout the perinatal period. They are trained to provide care to women and their families throughout pregnancy, childbirth and the early weeks of the infant's life. They are specialized in the physiological process of normal birth, in recognizing danger signs when something goes wrong, and in referring those women with complications who need special care from an obstetrician. Midwives need the back-up of physicians and obstetricians, and obstetricians need midwives to assist women in giving birth normally. This would permit the obstetricians to give more effective care to high-risk women with complications, who are most in need of their training and skills for emergency obstetric care and surgery.

Teamwork involving obstetricians, physicians, hospital midwives, community midwives and *dayat* is needed to make childbirth safe and satisfying.

The number of unemployed physicians and the insufficient number of midwives raises concern about the future role and scope of practice for midwives in the country. The question is not one of professional rivalry, but of **what type of care provider is best prepared to fulfill the particular function in a sustainable system.** Physicians are usually not trained in assisting women in normal childbirth (i.e. in midwifery skills) and a physician-based system for low-risk maternity care would probably not be sustainable, with the limited resources available for these services. Whereas teamwork among providers is essential for quality maternity care, some hospitals have employed doctors to do the work of midwives. If this trend continues, it may be detrimental to the provision of quality care. In the same respect, midwives in some hospitals are dealing with complicated cases, which they have neither the time nor the training to care for safely. Experienced doctors are very much needed to treat the obstetric high-risk cases and the complications.

## **1. Obstetricians/gynecologists in the WB**

### ***Number and distribution:***

According to the Medical Association (the register of 2003), there are one hundred and thirty-seven obstetricians. The records are for the most part accurate, but there may be a few missing names.

The following procedures are required for registration as an obstetrician: the physician must have graduated from a recognized medical school, completed one year of internship and fulfilled the requirements of specialization, according to the criteria set by the Palestinian Medical Council since 1998, and prior to that by the Jordanian Medical Council.

There are very few registered female obstetricians in the WB, which raises questions about the acceptability of services, considering that women frequently prefer to consult female health providers for this type of care.<sup>58</sup> (For the number of female obstetricians working in WB maternity facilities, see the main findings of this study, p. 60.)

Out of the total number of obstetricians on the list of the Medical Association, only 16% are females and 84% are males.<sup>59</sup>

The distribution of obstetricians according to the district where they live is shown in the following table and graph. Most of them work in the same district as their residence, with a few exceptions.

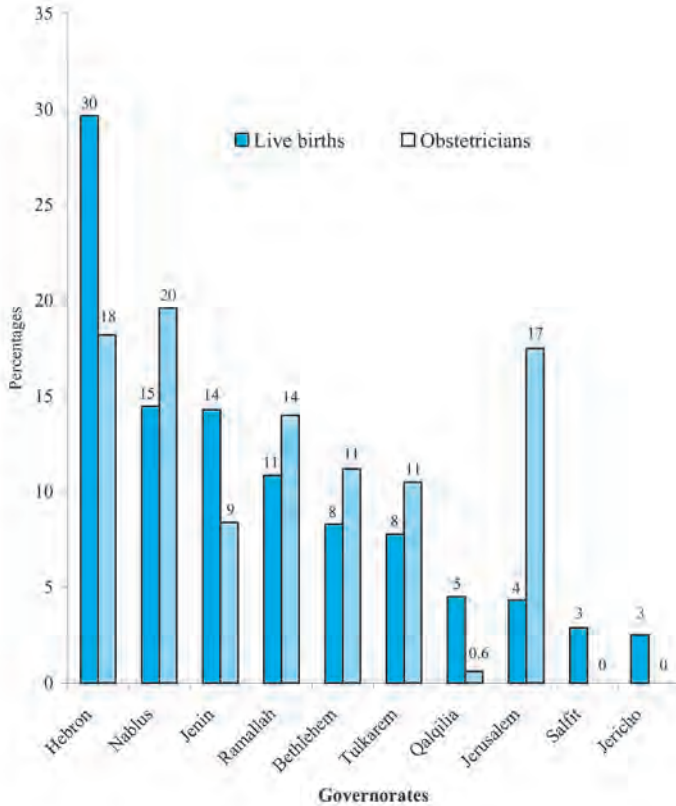
**Table 2: The distribution of obstetricians by district and region**

<i>District</i>	<i>Region</i>	<i>% of obstetricians</i>
Nablus		19.6
Tulkarem		10.5
Jenin		8.4
Qalqilia		0.6
	North	39.1
Jerusalem		17.5
Ramallah		14.0
	Center	31.5
Hebron		18.2
Bethlehem		11.2
	South	29.4

<sup>58</sup> Some female general practitioners work in the field of obstetrics and gynecology but are not included in this list as they are not obstetricians.

<sup>59</sup> Register of the Medical Association of Obstetricians/Gynecologists. Ramallah: 2003.

**Figure 2: The distribution of live births in relation to the distribution of obstetricians by district in the WB**



(Data for this graph are taken from the register of the Medical Association, 2003 and from the Ministry of Health-HMIS. 2003. *Health Indicators in Palestine 2002.*)

While obstetricians are relatively well-distributed in the districts of the WB, certain areas such as Hebron, Jenin and Qalqilia are underserved in relation to the proportion of births. (No obstetricians are registered in Jericho or Salfit, although some may work in these districts and reside elsewhere.) However, it should be noted that the regional distribution of the specialists does not necessarily mean that all women have access to an obstetrician in that health district, as the majority of them are in the urban areas which may be cut off from the villages and towns. Financial barriers are also a major limitation to medical care.



***Education and training***

Up until the year 1994, all physicians received their education outside of the country, as there was no medical school in Palestine. The result is that they have been trained in a very eclectic way, which has implications for the challenges in licensing, standardizing practices and ensuring quality care. Identifying where physicians were educated gives some insight into the type and characteristics of obstetric training that they received, which has influenced the way in which they practice. According to the Medical Association register of 2003, the majority of the obstetricians/gynecologists received their basic degrees in general medicine and surgery primarily from Arab countries (39%), followed by Eastern Europe (28%), Russia (15%), and Western Europe and Turkey (13%), with a few from other countries.

The regions where the obstetricians/gynecologists did their specialization or certification included Eastern Europe (27%), the Middle East (23%), and Western Europe (19%). (About one-third of the places of specialization were not specified on the list of the Medical Association.)

In addition to the country of specialization, the period when they received their specialist training may also reflect particular trends in obstetrical practice and years of experience, which help to assess the gaps in available human resources in obstetrics and the need for updated information and skills. Four percent have received their degrees since 2000, 31% in the nineties, 24% in the eighties, 12% in the seventies (with about 30% of missing information from the records).

***The Palestinian Medical School***

All physicians studied outside of Palestine until very recently, when the medical school of Al Quds University was established in 1994 and graduated their first class of twenty-one medical students in 2001. The second class of twenty-seven medical students graduated in 2002, and the third class of thirty-four graduated in 2003. It is yet to be seen how these newly graduated physicians will be integrated into the health system. An extensive report on human resource development in the health sector in Palestine finds alarming the number of Palestinian physicians who are

graduating from medical school either inside or outside the country. It estimates that from 1999 to 2003 there will be 1,500 incoming physicians in addition to the number who are currently unemployed.<sup>60</sup>

### ***Specialization/certification in obstetrics and gynecology in Palestine***

Al Maqassed Hospital in Jerusalem, the main Palestinian referral hospital, has provided a specialization program in obstetrics since January 1988, where general practitioners train for four years before sitting for the Jordanian Board certification. A selected number of physicians have the opportunity to specialize in this program. As of the year 2003, thirty-six Palestinian physicians from the WB and GS had been trained in obstetrics and gynecology in this program,<sup>61</sup> the only one recognized for a full period of specialization in obstetrics/gynecology. After this training many of them work in the WB and GS maternity hospitals. Exams for Palestinian Board certification were established by the Palestinian Medical Council in 1998. Those candidates who have specialized abroad must submit their case to a special committee for accreditation. There are also special regulations for doctors who do their residency in other hospitals in the WB or in other Arab countries.

## **2. Midwives/nurses in the WB**

A midwifery team within the Palestine Council of Health in the early years of the Palestinian MOH established a human resource database containing background information on all categories of midwives in Palestine.<sup>62</sup> This effort to enumerate and map midwifery as a separate profession from nursing is essential for future planning and resource development in perinatal care. While some skills of nurses and midwives are over-lapping, the focus of their training is quite different. Although some nurses may have learned

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<sup>60</sup> Welfare Association and Palestinian National Authority. 2001. *National Plan for Human Resource Development and Education in Health Report #5:Professionals Sub-plans*. Jerusalem: Welfare Association, p. 48.

<sup>61</sup> Communication with Dr. Nihad Abu Asab, consultant obstetrician/gynecologist at Maqassed Hospital, December, 2003.

<sup>62</sup> Palestine Council of Health, Midwifery Team. 1998. *The Midwifery Human Resources and Scope of Practice in Palestine*. Jerusalem: Palestine Council of Health.

midwifery skills, midwives are the key providers in Palestine who have the most expertise in providing perinatal care to low-risk mothers and newborns during pregnancy, childbirth and the postpartum. In particular, the skills and confidence to become qualified birth attendants require considerable training and experience, particularly in the current context where the birth attendant does not have ensured back-up and easy referral. Therefore, mapping midwives is very important for maternal health planning in Palestine. The MOH recently began reporting on the number of midwives in different services, which should thus enable the WHO to include in their global report the ratio of Palestinian midwives to the population, partially filling the gap in this information for the Middle East region.<sup>63</sup>

The MOH reports a total number of 436 midwives in Palestine, with a ratio of 13 per 100,000 population<sup>64</sup>, indicating a scarcity of midwives compared to most European and some developing countries<sup>65</sup>; 260 midwives are working in the WB, with 156 employed in the governmental health sector.<sup>66</sup>

When the number of midwives and nurses is combined, the ratio still remains very low, indicating an overall shortage of both professions. In Palestine there are 120 nurses/midwives per 100,000 population compared to 250 in Jordan, 590 in Israel, and 669 in the European Union.<sup>67</sup>

### **Home birth attendants**

Palestinian traditional birth attendants, *dayat*, have existed since early times and trained midwives since the British Mandate period (see historical description p. 21). The current system of licensing home birth attendants was instituted when the WB was under Jordanian rule.

<sup>63</sup> See [www3.who.int/whosis/health\\_personnel](http://www3.who.int/whosis/health_personnel).

<sup>64</sup> Ministry of Health-HMIS, p. 125.

<sup>65</sup> Some examples of countries with effective maternal health care systems report the following ratio of midwives per 100,000 population: The United Kingdom 43.3; The Netherlands 9.1; Sweden 71.8; Russian Federation 62.5; Sri Lanka 41.9. [www3.who.int/whosis/health\\_personnel](http://www3.who.int/whosis/health_personnel). Accessed May 23, 2002.

<sup>66</sup> Ministry of Health-HMIS, pp. 454-455.

<sup>67</sup> Schoenbaum M, p. 61.

In 1999 there were 179 birth attendants in the WB licensed and supervised by the Palestinian MOH to assist home births. About one-third of them were midwives or nurses with formal training and two-thirds were *dayat*, women who had gained their skills and experience through apprenticeship and who lived and worked in their community.<sup>68</sup>

These figures show a decrease in the number of home birth attendants since the beginning of the decade, when a survey reported that 273 community midwives were practicing, particularly in the rural areas. Many of these midwives were working in the north and the south of the West Bank, with access highest in the Jenin district (84% of the population had access to midwives), the Tulkarem district (71%) and the Hebron district (61%). Bethlehem had the lowest percentage (19%), which probably reflects the number of modern medical facilities in this region.<sup>69</sup> The considerable decrease in the number of practicing community midwives in the 1999 assessment seems to indicate both a reduction in the actual numbers of birth attendants and the fact that, most likely, some were practicing without a license from the MOH.

Interviews with the licensed community midwives in 1999 revealed a very eclectic group of birth attendants, with a diversity of ages, training and practices, extending from those with no formal training to those who had updated midwifery school degrees with training in referral hospitals.<sup>70</sup> Certainly the unstable political situation with curfews and closures had motivated the more recently trained midwives to request licenses to assist home births, as their midwifery training was exclusively institution-based and the dominant medical ideology very oriented toward hospital birth. In 2000, based on the results of the assessment of the community midwives, Ibn Sina Nursing and Midwifery College planned and

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<sup>68</sup> Wick L. 1999. *Traditional Birth Attendants in the West Bank: An Assessment of System Building and Training Needs*. Birzeit: Institute of Community and Public Health and Women's Health and Development Directorate, p. 15.

<sup>69</sup> Barghouthi M and Daibes I. 1993. *Infrastructure and Health Services in the West Bank: Guidelines for Health Care Planning*. Ramallah: HDIP, pp. 95-96.

<sup>70</sup> For a description of their reported practices during childbirth, see the full report mentioned in the bibliography. Many of them reported combining basic midwifery practices with traditional healing methods during childbirth care. Forty-four percent reported using spiritual healing (*ilaaj bi al-Qur'an*), 29% massage (*tamlis*), 26% herbal preparations (*a'shaab*), and 13% cupping (*kassat hawa*). Wick L , p. 30.

organized training workshops to upgrade the skills of some of the licensed *dayat*, selected on the basis of their age and location. A few of them were then chosen to further their education by entering the midwifery program at the college.

### **Midwifery education**

The MOH has identified the need for strengthening midwifery through the upgrading of midwifery programs. Midwives are trained in three midwifery schools in the WB: Ibn Sina Midwifery College belonging to the Palestinian MOH in Ramallah, Al-Quds University in Jerusalem, and Bethlehem University in Bethlehem. The number of midwives graduating from these programs in the WB has doubled in the past few years, and from 1999 to 2003, there were expected to be 81 new graduates.<sup>71</sup> However, these schools face obstacles in finding funding and support for their students, which limits the number of women who can join the program. There are also very few qualified midwifery tutors and teachers, and the general perception that any doctor can teach midwifery students is an on-going threat to the quality of the midwifery schools. Finding appropriate maternity services that are suitable for the clinical practice of the midwifery students is another challenge in upgrading midwifery education. It was also reported that candidates often prefer to study nursing rather than midwifery. The student attrition rate in midwifery programs (7.8%) in 1998-1999 was reported to be twice or three times higher than most other paramedical programs.<sup>72</sup> Partial explanations for this may be that the families can no longer afford the cost of their daughters' education and/or midwifery has relatively low status in the society.

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<sup>71</sup> Welfare Association and Palestinian National Authority. 2001. *National Plan for Human Resource Development and Education in Health Report #2: Appraisal of Palestinian Educational Programs in Health*. Jerusalem: Welfare Association, p. 48.

<sup>72</sup> Ibid, p. 64.



## **V. METHODS OF THE STUDY**





## V. METHODS OF THE STUDY

### Study design

According to a list by the Palestinian MOH, thirty-seven maternity hospitals were operating in the WB during the period of fieldwork. (Due to the situation of frequent closures and curfews, a few institutions have been forced to close down and others have recently opened to accommodate birthing women.)

Data was collected from all of the thirty-seven maternity hospitals on the number of births and the staffing. Fieldworkers visited twenty-five of these maternity hospitals and interviewed the health providers concerning the policies and practices for normal childbirth. The interviews covered all of the governmental and most of the NGO/charitable hospitals, some of the private hospitals and the only UNRWA hospital.

The hospitals that the fieldworkers were not able to reach for interviews were primarily small private hospitals. Three of the twelve hospitals were located in the north and nine in the south. (The southern region of the WB was the most difficult to access during this period, where some of the hospitals located in towns were completely cut off from other areas.) However, information collected from these twelve hospitals was included in the analysis of the number of births and of the maternity staff, giving a complete picture of all the maternity facilities in the WB. **The analysis of the physical infrastructure and the routine childbirth practices, on the other hand, is based on face-to-face interviews in the twenty-five hospitals that were visited.**

Although the investigators would have liked to include the maternity facilities in Gaza, it was not possible to carry out the necessary fieldwork there at this time due to the strict and extensive closure of the GS. Thus this report will limit its scope to normal childbirth in maternity facilities in the WB.

Fifty-five interviews using a semi-structured questionnaire were carried out with twenty-six obstetricians and twenty-nine midwives from the twenty-five hospitals included in the fieldwork between April 2002 and June 2003.

The head obstetricians responsible for the obstetric units were interviewed in all of the hospitals except for two. In some instances additional information was collected from discussions with resident physicians. All of the head midwives were interviewed, and in most facilities meetings were also held with other midwives of the staff to gather additional information on certain questions. Hospital statistics of the year 2001, which were not standardized from one hospital to another, were collected when available. Observations related to childbirth care or the hospital setting were noted during the visit and written up at the end of the day (see description below). The fieldworkers spent a minimum of one full day at each hospital, but in some cases several return visits were made for additional information. The extended time period of the fieldwork was due to the frequent closures and curfews, when the field workers could not reach their destinations. The quantitative data from the questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS). Content analysis according to themes was used to analyze the open-ended questions. It provided information about providers' perceptions and the environment in which they work, which helps to better understand the context of care and how to implement change.

### **Conditions of the fieldwork and limitations of the study**

A short description of the process of the fieldwork might shed light on the context of maternity care in the WB. Barriers to movement and boundaries currently shape all aspects of the health care system as well as daily life in the OPT. Pregnant women cannot plan ahead when and if they can get to the hospital when they go into labor, which creates a constant state of anxiety. Health providers have difficulties in getting to their place of work, and hospitals must function without being able to plan on the number of staff they will have or the number of patients and emergency cases. It is difficult to define 'routine' health care because of the constant turbulence, the rapid unpredictable changes on the ground, and the shifting health priorities.

In spite of these conditions which are not ideal for research, the investigators deemed important, nevertheless, to assess childbirth practices with the aim of making care more effective and efficient within the current context of restraints.

While lack of mobility and unpredictable conditions made the field work arduous and time-consuming, the only way to get a broader picture beyond the recorded hospital obstetric statistics or the national health indicators was to visit the actual place. Systematic observation of intrapartum care practices was not part of the study design. However, the fieldworkers spent time in the delivery rooms and postpartum wards and noticed the interactions between midwives and physicians and between health providers, women and newborns. They observed the conditions in which women gave birth. As two to four health providers (including different types of caregivers-obstetricians, physicians, midwives, nurses) were interviewed in each hospital with the same questionnaire, it was possible to compare their responses. This in some instances gave indications of possible bias on the part of the interviewee who responded according to what was expected rather than describing the actual practices, which permitted the fieldworker to further investigate the practice in question.

The principal investigators, with the assistance of an additional fieldworker in each health district, were able to visit most of the hospitals, thereby acquiring a comparative view of the different regions and hospital sectors. While the research team at the outset questioned whether the stressed and overworked health providers would be willing to give of their time for the interviews, the response was for the most part positive and open. The health providers were very appreciative that the fieldworkers had gone to the trouble of reaching the facility, which frequently involved waiting at numerous checkpoints, being turned back, and trying again another day or another way. But when the contact was finally made, the experience was an intense one.

The study is limited by the fact that the results are based on reported practices by the health providers, which other research has frequently shown to be different from actual practices. However, in this situation of crisis management, it appeared that health providers talked openly about substandard care and the difficulties in applying best practices. The quantitative data from the interviews was complemented with open-ended questions, which left time and space for the physicians and midwives to tell the many stories of childbirth assistance under duress. The discourse of the health providers at the beginning of the interview tended to be a "public account" of what was considered to be the legitimate responses,

but as the interview went on they discussed openly their “private accounts”,<sup>73</sup> which included their personal experiences of how they and some birthing women dealt with the difficult and dangerous situations which they had experienced first hand, and the stressful working conditions which had become a daily routine. They did not hesitate to mention that sometimes they provided care that was not based on best practices, but due to the circumstances, they found it difficult to do otherwise.

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<sup>73</sup> Gesler W. 1991. *The Cultural Geography of Health Care*. Pittsburgh: University of Pittsburgh Press, pp. 199-201.

## **VI. MAIN FINDINGS**



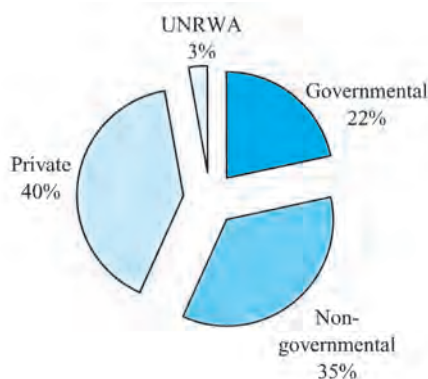
## VI. MAIN FINDINGS

Data was collected from maternity hospitals in order to assess the adequacy of service provision for normal birth in maternity facilities in the WB. Sections 1,2 and 3 (hospital sector, size and location; staffing) are based on data collected from the total number of maternity hospitals (37) in the WB during the period of fieldwork. Sections 4 and 5 (physical infrastructure; policies and practices) are based on data from the interviews in the twenty-five hospitals that were visited (see study design, p. 51).

### Section 1: Number, sector and location of the hospitals

Data was collected from the 37 WB maternity hospitals including Jerusalem. The list of these hospitals, which included all operating maternity hospitals during the period of fieldwork (from April 2002 to June 2003), was provided by the MOH. Out of the 37 hospitals, 8 (22%) belonged to the governmental sector, 13 (35%) were non-governmental/ charitable hospitals, 15 (40%) were private, and one (3%) was run by UNRWA.

**Figure 3 : The distribution of the WB maternity hospitals by sector**



The hospitals were relatively well-distributed in the three regions of the WB, as 13 (35%) were located in the north (Nablus, Jenin, Qalqilia, Tulkarem, Salfit), 11 (30%) in the middle (Ramallah, Jerusalem and Jericho), and 13 (35%) in the south (Hebron and

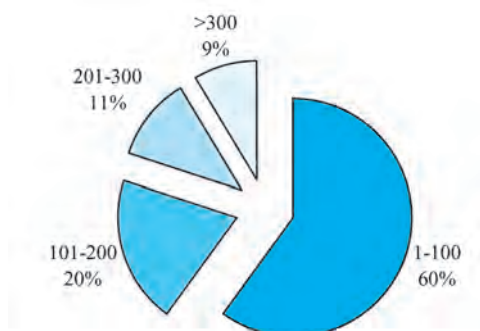
Bethlehem). One-half of the governmental hospitals (4), where maternity care is free of charge due to the introduction of the Al Aqsa Health Insurance, were in the north, one quarter (2) in the middle region and one quarter (2) in the south. Five of the NGO hospitals were in the north, three in the middle and five in the south. Private maternity hospitals were distributed with three in the north, six in the middle and six in the south. The only UNRWA hospital was in the north.

## Section 2: The classification of the hospitals by caseload in 2001

Data on the caseload was available for 35 hospitals. The median number of deliveries in WB maternity hospitals was 95 per month during the period of fieldwork.

The majority of maternity hospitals have a small caseload, with a range of 1-100 deliveries per month.

Figure 4: The distribution of maternity hospitals by caseload (average number of deliveries per month during 2001)



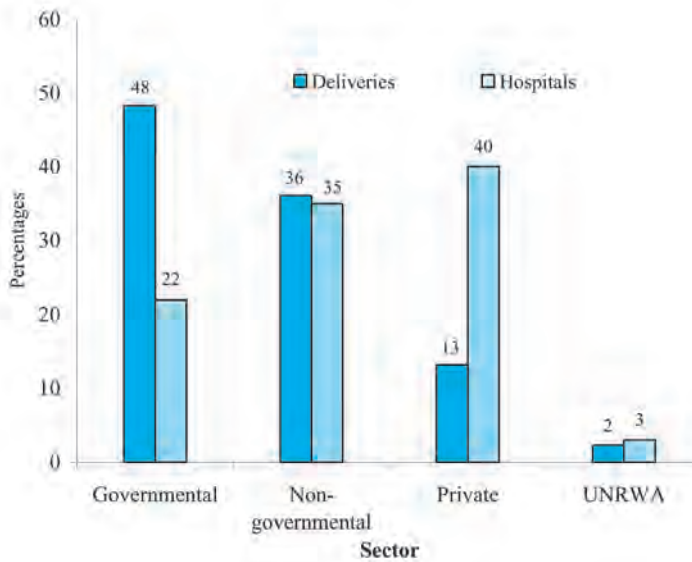
Most of the governmental hospitals had a high caseload, as five of the eight governmental hospitals had an average caseload of > 200 deliveries per month; all the private hospitals had an average caseload of < 100 deliveries per month. Six of the NGO hospitals had an average caseload of < 100 deliveries per month; five had between 101-200 deliveries per month and two had > 200 deliveries per month.



According to the reported average number of deliveries per month in this study in 2001, 48.3% (2,274) of them took place in governmental hospitals, 36.1% (1,698) in NGO hospitals, only 13.2% (623) in private hospitals and 2.3% (110) in the one UNRWA hospital.

When the percentage of deliveries was compared to the percentage of hospitals in each sector (not counting the one UNRWA hospital), it was found that the governmental sector had the fewest maternity hospitals and yet handled the largest share of deliveries in the WB. The private sector was the exact opposite with the largest proportion of hospitals handling the fewest deliveries.

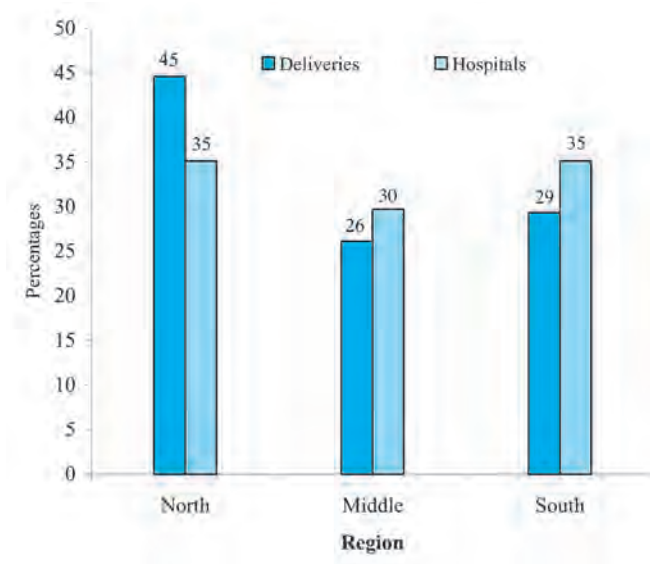
**Figure 5: The distribution of hospitals and reported deliveries by sector**



When the maternity hospital caseloads were compared in the different regions, it was found that the majority of maternity hospitals, regardless of the region, had small caseloads of 1-100 deliveries per month. More hospitals in the north had higher caseloads between 201-300 per month and >300 per month.

The regional distribution of the reported deliveries was 44.6% (2,100) in hospitals of the north, 26.1% (1,226) in hospitals of the middle and 29.3% (1,379) in hospitals of the south. The north had the highest proportion of deliveries in relation to the number of hospitals, as indicated by the figure below.

**Figure 6: The distribution of hospitals and reported deliveries by region**



### **Section 3: Staffing in maternity hospitals**

#### **Obstetricians**

A total of eighty-four obstetricians were working on the staff of the maternity hospitals. Some hospitals reported different systems in the utilization of private obstetricians. Six hospitals gave privileges to private obstetricians (not on the hospital staff) to deliver their patients on a private basis and three hospitals had only obstetricians who delivered on a private basis. The maternity hospitals reported that forty-nine obstetricians worked on a private basis; however, some may have had privileges in more than one hospital.

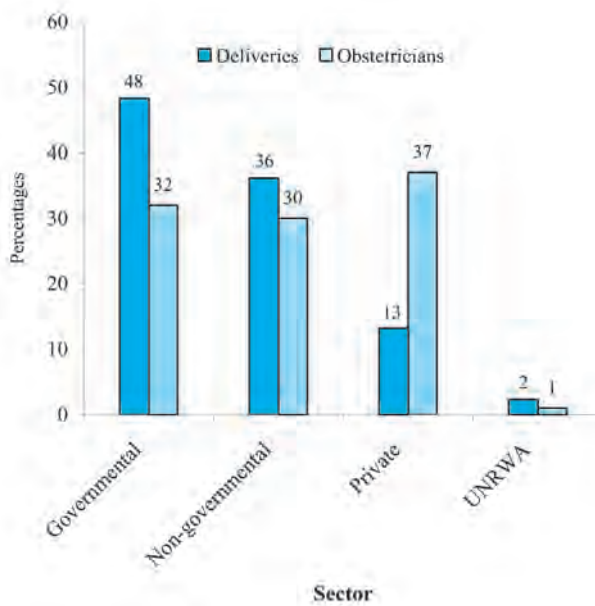
Out of the 84 hospital staff obstetricians, 6 (7%) were females and 78 (93%) were males. The female obstetricians were evenly distributed across the governmental, NGO and private facilities; 3 were in the north, 2 in the middle region and 1 in the south.

In addition to the 6 female obstetricians on the staff of maternity hospitals, 5 more were reported as working on a private basis, which gave a total of 11 female obstetricians working in WB maternity hospitals. Three hospitals reported having one to three female general practitioners who worked with them.

Out of the 84 hospital staff obstetricians, 32% were in the governmental sector, 30% in the NGO sector, 37% in the private sector and 1% in the UNRWA hospital.

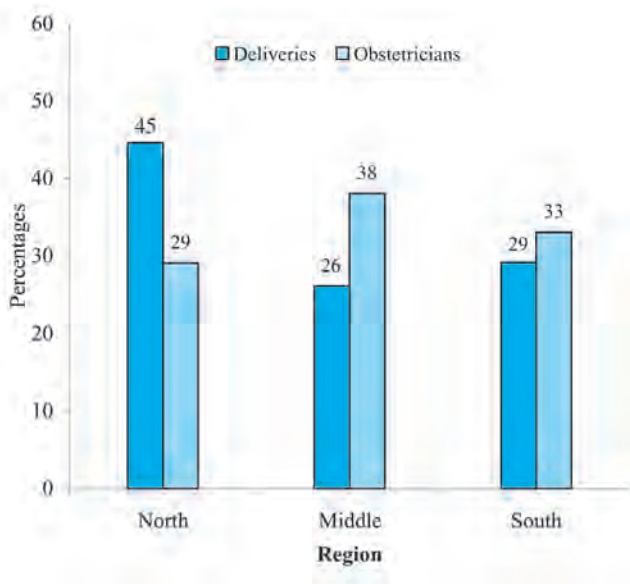
The private hospitals, which have the lowest number of births, have the highest number of obstetricians on their staff in relation to the governmental and NGO hospitals.

**Figure 7: The distribution of deliveries and hospital staff obstetricians by sector**



Out of the 84 hospital staff obstetricians, 29% are in the north, 38% are in the middle and 33% are in the south, indicating that the north has the fewest number of staff obstetricians in relation to the number of deliveries.

**Figure 8: The distribution of deliveries and hospital staff obstetricians by region**



### **Midwives (including both staff and practical midwives)**

A total of two hundred and twenty-one midwives were working in WB maternity hospitals. The range was 1-24 midwives per hospital, the mean was 6.14 and the standard deviation was 4.67. The hospitals reported two different categories of midwives working for them. One hundred and thirty-one (59%) were staff midwives, who had more extensive training (bachelor of science degree), and 90 (41%) were practical midwives.

**Table 3: The distribution of midwives by sector**

Hospital sector	Percentage and number of midwives
governmental	34% (76)
NGO	41% (90)
private	21% (46)
UNRWA	4% (9)

As shown by the table above, more midwives were in the NGO maternity hospital sector than in the other sectors.

**Table 4: The distribution of midwives by region**

Region	Percentage and number of midwives
North	40% (88)
Middle	28% (62)
South	32% (71)

As shown by the table above, more midwives worked in hospitals in the north than in the other regions.

***The number of births per midwife by hospital sector***

The monthly average number of births in each hospital was divided by the number of midwives working there. Results showed that the mean ratio of births to midwives was higher in the governmental sector (33) than the NGO sector (21) followed by the private sector (18) and the UNRWA hospital (12). Assuming that the case-mix was similar in the different types of hospitals, this finding might indicate that the midwives in the governmental hospitals had a high workload, raising questions about the adequacy of the number of staff in this sector to ensure safe and satisfying childbirth. Further research is needed.

***The number of births per midwife by region***

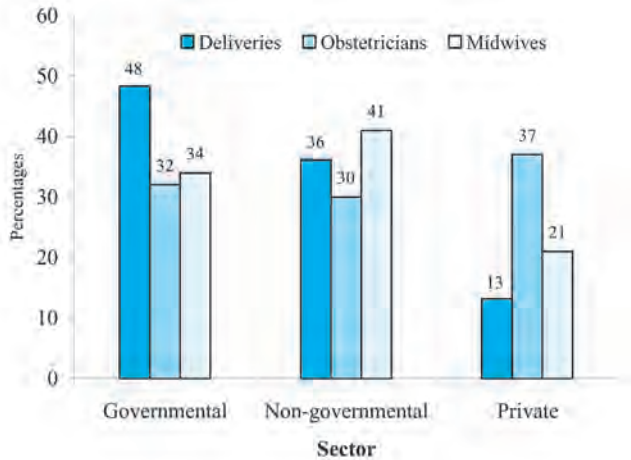
In order to get a rough estimation of the workload of the hospital midwives in the different regions, the monthly average number of births in each hospital was divided by the number of midwives working there. Results showed that the mean ratio of births to midwives was the same in the three regions (22). Assuming that the case-mix was similar in all the regions, this finding might indicate that midwives were evenly distributed in the different regions. Further research is needed.

In most hospitals, midwives had other tasks in addition to attending births. They also took care of hospitalized pregnant women with complications and in some cases gynecological patients.

***The distribution of deliveries, hospital staff obstetricians and midwives by sector***

The following figure shows that only one-third of the obstetricians and a similar proportion of midwives worked in governmental facilities, where almost one-half of deliveries occurred.

**Figure 9: The distribution of deliveries, hospital staff obstetricians and midwives by sector**



#### **Section 4: Physical infrastructure of the hospitals**

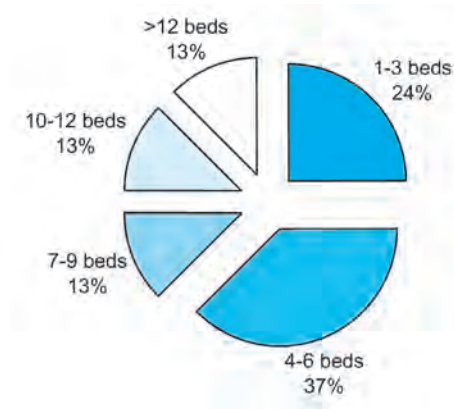
(The following data refer to the 25 hospitals that were visited and the data was collected by interviews.)

##### **Labor and delivery bed capacity**

The total number of labor and delivery beds in the maternity hospitals that were visited was 153, and the range was between 2-15 beds. Ten of the hospitals reported having one ward for both labor and delivery and fourteen hospitals reported having separate wards for labor and delivery.

Sixty percent of the hospitals had a labor and delivery bed capacity of between 1-6 beds, indicating a large number of relatively small maternity units.

**Figure 10: The classification of maternity hospitals by labor and delivery bed capacity**



The total number of combined labor and delivery beds in the WB was 153, with 67 (44%) in governmental hospitals, 62 (41%) in NGO hospitals, 21 (14%) in private hospitals and 3 (2%) in the UNRWA hospital. Governmental hospitals had the highest bed capacity for births, as 50% of them had 10 beds or more, whereas 50% of the NGO hospitals had 4-6 beds or more and most of the private hospitals (67%) had 3 beds or less.

When distributed according to region, 56 (36%) of labor and delivery beds were in the north, 59 (39%) in the middle and 38 (25%) in the south. When the bed capacity was compared among regions, it was found that half of the hospitals in the north and the south and three-quarters of the hospitals in the middle of the WB had a small delivery bed capacity (1-6 beds).

### **The postpartum unit**

Eighteen (72%) hospitals reported that they had a separate postpartum unit while 7 (28%) reported that it was either part of the rest of the hospital or part of the antenatal and gynecological department. The range of the bed capacity was between 2-35. Thirty-six percent of the hospitals had 1-10 beds, and 40% had

11-20 beds. One governmental and one NGO hospital had more than 30 beds in the postpartum unit.

**The neonatal intensive care units (NICU)**

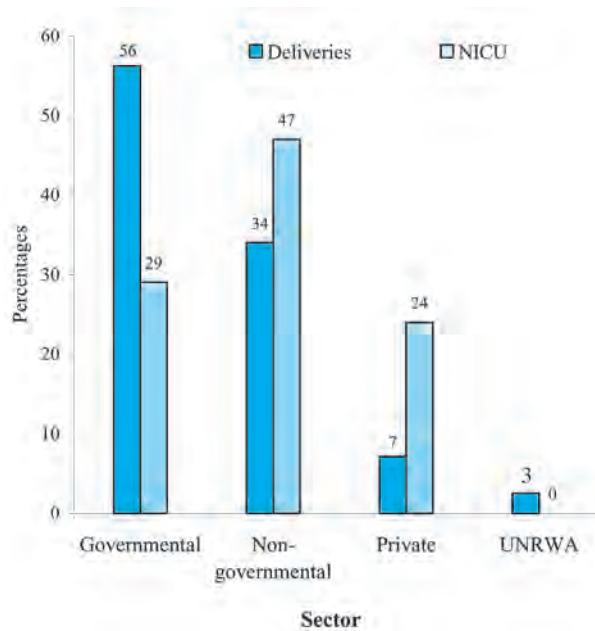
Seventeen (68%) hospitals reported having a NICU while eight (32%) reported not having one. About half of the NICUs were in the NGO sector.

**Table 5: The distribution of NICUs by sector**

Hospital sector	Percentage of NICUs according to sector
governmental	29%
NGO	47%
private	24%
UNRWA	0%

Sixty-three percent of the governmental hospitals, 80% of the NGO and 67% of the private hospitals reported having a NICU.

**Figure 11: The distribution of deliveries and NICUs by sector**





When the number of NICUs per sector was compared to the average number of deliveries per month in that sector, it was found that the governmental hospitals had the highest number of births per NICU while the private hospitals have the lowest number of births per NICU.

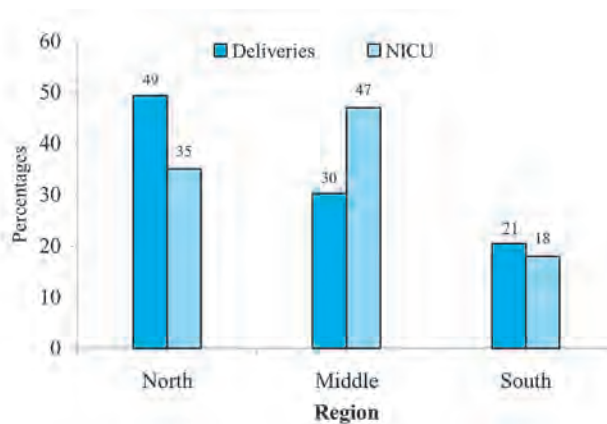
There were five NICUs in the governmental sector with approximately an average of 2, 274 deliveries per month, eight NICUs in the NGO sector with an average of 1, 377 deliveries per month, and four in the private sector with an average of 288 deliveries per month.

**Table 6: The distribution of the NICUs by region**

Region	Proportion of NICUs in this region
north	35%
middle	47%
south	18%

About one-half of the NICUs were located in the middle region. Sixty percent of the hospitals in the north, 73% of the hospitals in the middle and 75% of the hospitals in the south reported having a NICU.

**Figure 12: The distribution of deliveries and NICUs by region**



When the number of NICUs per region was compared to the average number of deliveries per month in that region, it was found that hospitals in the north have the highest number of births per NICU while those in the middle have the lowest number of births per NICU.

### ***The number of incubators and heated resuscitation tables***

**1. Incubators:** the number of incubators in the NICUs ranged between 1 and 20 , with a median of 3.

Eighteen (78%) hospitals reported having 1-4 incubators; three (13%) hospitals reported having 5-12 incubators, and two (9%) reported having 16-20 incubators.

Most incubators were in the NGO hospitals, while around half of the deliveries occurred in the governmental hospitals. In addition, most of them are located in the middle of the country, while over twice as many births take place in maternity facilities in the north and the south of the country.

Thirty-six (34%) incubators were in the governmental hospitals, fifty-four (51%) in the NGO hospitals, fifteen (14%) in private hospitals and one in the UNRWA hospital. Twenty-four (23%) incubators were in hospitals in the north, fifty-five (52%) in hospitals in the middle and twenty-seven (25%) in hospitals in the south.

**2. Heated resuscitation tables:** Twenty-four hospitals reported having heated resuscitation tables, while only one hospital reported not having any.

### ***The operating rooms***

Twenty-four hospitals reported having operating rooms within the hospital. Only one of the maternity facilities did not have the capacity to do operations and had to refer the cases.

## **Section 5: The Policies and Practices for Normal Childbirth**

### ***a) Routine care during normal childbirth in maternity facilities***

This section begins with a table of the childbirth practices reported in this study, which are classified according to the forms of care in

Enkin et al.<sup>74</sup> Following the table, each practice will be discussed separately, with a summary of the research evidence <sup>75</sup> and the results and analysis of the main findings of this report.

**Table 7: Practices reported by maternity hospitals in relation to evidence-based practices**

Practice	Number of hospitals reporting routine use
<b>Forms of care likely to be ineffective or harmful</b>	
enema	12
pubic shaving	8 routinely 4 in case of C/S or episiotomy.
lithotomy position during 2nd stage of labor	24
liberal or routine use of episiotomy	18 for primigravidae
<b>Forms of care unlikely to be beneficial</b>	
withholding food and drink	7
routine intravenous infusion	14
routine suctioning of the newborn	18
<b>Beneficial forms of care</b>	
prophylactic oxytocics in 3rd stage	24
active vs. expectant management of 3rd stage	24
<b>Forms of care likely to be beneficial, although not established by randomized trials</b>	
midwifery care for low-risk women	20
presence of a companion for labor and birth	15
freedom of movement and choice of position in labor	24
non-pharmacological methods of pain relief	20
keeping newborn babies warm	20 use heated resuscitation table 4 use towels 1 skin-to-skin contact
encouraging early mother-infant contact and breastfeeding	22
prophylactic vitamin K to baby	24
<b>Forms of care with a trade-off between beneficial and adverse effects</b>	
narcotics to relieve pain in labor	24 hospitals reported using pethidine
epidural analgesia to relieve pain in labor	14 hospitals use it for a small percentage of cases
oxytocin for augmentation of labor	16
continuous electronic monitoring versus intermittent auscultation during labor	All facilities reported using intermittent auscultation and having at least one electronic fetal monitor monitor. Only seven hospitals had a fetal stethoscope.

<sup>74</sup> Enkin M et al., pp. 485-509.

<sup>75</sup> The sources of the evidence have been cited primarily from:

Enkin M et al. 2000. *A Guide to Effective Care in Pregnancy and Childbirth*, 3rd ed. Oxford, UK: Oxford University Press..

World Health Organization. 1996. *Care in Normal Birth: A Practical Guide*. Geneva: WHO, 1996.

MAQ Exchange. 2002. *The Evidence Speaks Out: Normal Labor and Childbirth*. [www.maqweb.org/maqslides/powerpoint/Maternal/nlc/nlc.pdf](http://www.maqweb.org/maqslides/powerpoint/Maternal/nlc/nlc.pdf). Accessed on March 23, 2004.

## Care during the first stage of labor

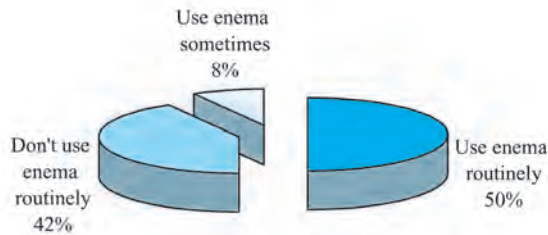
### Routine use of enemas

- The use of enema is no longer recommended.

Bowel preparation was routinely used in the past for normal labor. It was believed that this would facilitate the descent of the fetal head, shorten labor, and reduce contamination at delivery.<sup>76</sup> However, research evidence has shown that there is no benefit to doing routine enemas for normal labor. It causes discomfort and negative feelings for women, and it does not shorten labor or decrease infection or perinatal wound infection.

In this survey, twelve hospitals (50%) reported using routine enema.

**Figure 13: Routine use of enemas in maternity hospitals**



Six of the eight governmental hospitals and the only UNRWA hospital reported not using enema routinely, while seven of the ten NGO hospitals and four of the six private hospitals reported using enema routinely.

The routine use of enema was similar in the different regions, with half of the hospitals in each region using routine enema and one-third to one-half not using it. It was practiced more in hospitals with low caseloads than those with high caseloads, as two-thirds of hospitals with less than 100 deliveries per month use routine enema, while only one-third of the hospitals with more than 100 deliveries per month use it.

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<sup>76</sup> Enkins M et al., p. 258.

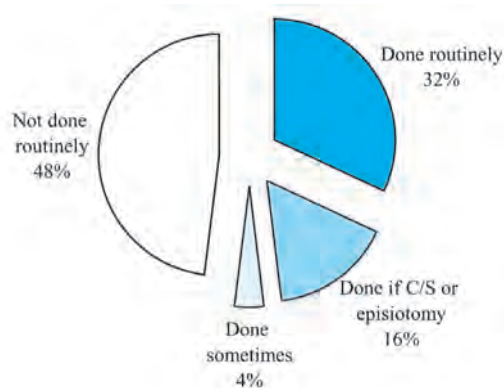
**Routine use of pubic shaving**

- The use of pubic shaving is no longer recommended.

Routine shaving was previously practiced before the woman gave birth on the assumption that it would reduce infection and facilitate suturing in case of an episiotomy.<sup>77</sup> On the contrary, the evidence shows that it may increase the risk of infection or transmission of HIV or hepatitis if the mother has open cuts on the perineum.<sup>78</sup>

Eight hospitals (32%) reported that routine pubic shaving is done, and 4 (16%) reported that it is practiced routinely only in case of Caesarean section or episiotomy.

**Figure 14: Routine use of pubic shaving in maternity hospitals**



Regardless of the hospital sector, one-half to one-third practiced routine pubic shaving for normal births. Hospitals in the north and the middle of the region had similar patterns of use, as half of them practiced routine pubic shaving, while the hospitals in the south, for the most part, did not. Pubic shaving was done more frequently in hospitals with a low caseload, as it was done in 40% of hospitals with a low caseload compared to 25% of hospitals with a high caseload.

<sup>77</sup> Enkins M et al., p. 259.

<sup>78</sup> MAQ Exchange, pp. 21-34.

### **Oral fluids during labor**

- Women should be supported to eat and drink as they desire in normal labor.

Drinking and eating during labor have been restricted due to the widespread concern that in case of intervention with general anesthesia, the woman might aspirate stomach contents, which could result in serious complications. However, further research shows that fasting does not guarantee an empty stomach. Because labor and birth require a great amount of energy, restricting food and drink in labor may cause dehydration and ketosis with consequences for the mother and the newborn. Furthermore, with improvement in the technique of anesthesia, the risk of aspiration has decreased.<sup>79</sup> Higher fluid intake during labor is associated with less incidence of prolonged labor, shorter labor duration, and reduced need for oxytocin infusion.<sup>80</sup>

Eighteen hospitals (72%) reported that they allowed the woman to drink fluids during normal labor while seven hospitals (28%) reported that they did not. NGO hospitals and the UNRWA hospital permitted the use of oral fluids more than governmental and private ones. More hospitals in the north and the middle of the country tended to restrict drinking than in the south. No difference was apparent when the results of hospitals with different caseloads were compared.

### **Routine intravenous (IV) fluids**

- It is recommended to allow women to eat and drink during normal labor rather than giving them an IV infusion. Routine IV infusion is not usually necessary if the woman is drinking freely. An IV infusion may cause fluid overload with negative consequences for the mother and newborn. In addition, it inhibits the woman's mobility during labor.<sup>81</sup>

Fourteen hospitals (56%) reported that they gave routine IV fluids. Only three hospitals (12%) reported that they did not routinely insert an IV cannula and eight (32%) reported routine insertion of an IV cannula in case it was needed, but not routine IV fluids.

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<sup>79</sup> Enkins M et al., p. 262.

<sup>80</sup> MAQ exchange, pp. 21-20.

<sup>81</sup> Goer H. 1999. *The Thinking Woman's Guide to a Better Birth*. New York: The Berkeley Publishing Group, pp. 239-242.

The private hospitals were more likely to give routine intravenous fluids during normal labor than the governmental and NGO hospitals. More hospitals in the north (8 out of 10) gave IV fluids routinely than in the middle (6 out of 11) and none of the hospitals in the south used it routinely. Slightly more hospitals with low caseloads (8 out of 12) used IV fluids routinely than hospitals with high case loads (6 out of 13).

***Maternal position and mobility during labor***

- Freedom of movement and position of choice (side-lying, squatting, hands and knees, semi-sitting, sitting) should be encouraged.

While the supine position (lying on the back) was often the routine position in hospitals during normal labor, research has shown that this position might reduce the uterine blood supply and affect the progress of labor.<sup>82</sup> For this reason, women are now encouraged to walk around during labor and adopt different positions, which facilitate the descent of the fetus.

In this survey, twenty-four hospitals (96%) reported that women were permitted to take different positions and to move around during the first stage of labor while one reported that women were not allowed to move.

***Fetal heart monitoring during labor***

- Monitoring the fetal heart to identify fetal hypoxia is recommended every 15 minutes during the first stage of labor and more often during the second stage. The current evidence suggests that for normal labor regular auscultation by a birth attendant with a fetal stethoscope or a hand-held Doppler ultrasound monitor is the policy of choice.<sup>83</sup>

All the hospitals reported regular monitoring of the fetal heart during labor and birth. While most hospitals reported having at least one electronic fetal monitor, they did not practice continuous fetal monitoring. Rather they did intermittent auscultation of the fetal heart, using primarily the hand-held Doppler ultrasound monitor. The hospitals also reported that they had difficulties in

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<sup>82</sup> Enkin M et al., p. 263.

<sup>83</sup> Enkin M et al., p. 268.

the maintenance of the electronic fetal monitors. Repairing equipment and the availability of electricity was sometimes a problem. In this situation, it is surprising that more maternity health providers did not have available the fetal stethoscope which can be used in all conditions.

All hospitals reported having at least one electronic fetal monitor. Twenty-four hospitals (92%) reported also using the Doppler ultrasound monitor. Seven hospitals (28%) reported using the fetal stethoscope (Pinard) to listen to the fetal heart beat, but eighteen hospitals (72%) did not have one available.

### **Monitoring the progress of labor**

#### **1) Vaginal exam during labor:**

- Vaginal exams help to measure the progress of labor by estimating the rate of cervical dilatation, for the purpose of identifying prolonged labor and preventing serious problems. The current recommendation for the frequency of vaginal examinations is that care should be individualized. The vaginal examination should be used to detect any problems, but not used more frequently than necessary.<sup>84</sup> Frequent vaginal exams, especially by more than one caregiver, can introduce infection.

Fifteen hospitals (60%) reported that a vaginal exam is done every two hours. Two hospitals (8%) reported that it is done every 2 hours for primiparae and every 4 hours for multiparae. Seven hospitals (28%) reported that it depends on the case. One hospital reported that it is done hourly.

Twenty-two hospitals (88%) reported that sterile gloves are usually used during vaginal exams, while two hospitals reported that they are not usually used. It is important to note that 11 hospitals (44%) reported that the vaginal exam was done by many different caregivers.

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<sup>84</sup> Enkin M et al., p. 285.



## 2) Use of the partograph:

- The partograph is a tool to monitor the progress of labor. The use of the partograph is recommended for the monitoring of all women in labor. When used effectively, the partograph guides decision-making in the management of labor and helps to avoid unnecessary interventions.<sup>85</sup>

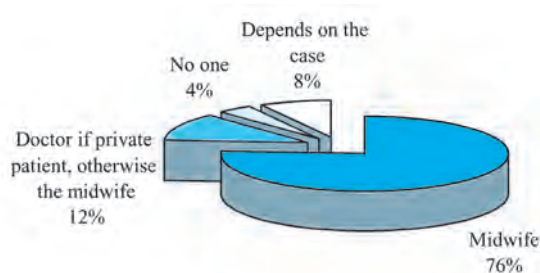
Only 9 hospitals (36%) in this study reported routine use of the partograph.

### **Caregiver support**

- Continuous support by the same caregiver should be provided during labor and childbirth. Continuous support by the same caregiver has been shown to reduce the need for medication for pain relief, to reduce operational and Caesarean deliveries, and to result in fewer 5-minute Apgar scores below 7.<sup>86</sup>

Nineteen hospitals (76%) reported that the midwife stayed with the mother during most of labor and delivery. Three hospitals (12%) reported that the doctor remained with the mother if she is a private patient and otherwise the midwife stayed with her. One large governmental hospital reported that no one stayed with the mother. Two hospitals reported that the presence of a caregiver depended on the case.

**Figure 15: Caregiver support**



<sup>85</sup> MAQ exchange, pp. 21-14.

<sup>86</sup> Hodnett ED. 2000. "Caregiver support for women during childbirth" (Cochrane Review), in *The Cochrane Library*. Issue 3. Update Software: Oxford.

### **Family member support**

- The presence of a birth companion, according to the mother's choice, should be encouraged during labor and childbirth. The presence of a birth companion has been associated with more normal births, fewer Caesarean sections, and less use of analgesia, amniotomy and oxytocin.

Fifteen hospitals (60%) reported that the presence of a family member was allowed during labor, either the husband or the mother or the sister. Ten hospitals (40%) reported that none of the family members were allowed to stay with the mother during labor. All of the eight governmental hospitals reported that women were not permitted to have a support person. More of the hospitals in the middle of the country allowed family member support than in the north or the south.

Seventy-five percent of the hospitals with low caseloads (less than 100 deliveries per month) allowed family member support in contrast to 46% of the hospitals with high caseloads (more than 100 deliveries per month). The reason for not allowing family member support may have been related to the high caseload and lack of space.

Out of the 15 hospitals who allowed a support person during labor and delivery, 9 hospitals reported that the family member could stay throughout normal labor and birth. Two hospitals reported that the family member could stay during labor but not during delivery. Two hospitals reported that this depended on the mother.

### **Non-pharmacological pain relief**

- Methods of childbirth support, such as words of encouragement, massage and gentle touch, deep-breathing etc. helps to reduce the need for medications. Drugs (such as narcotic analgesics) can have a detrimental effect on the newborn at birth and depress the baby's respiration.<sup>87</sup>

Twenty hospitals (80%) reported using non-pharmacological pain relief methods such as massage, verbal coaching, and taking a shower, while five hospitals (20%) reported not using these methods.

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<sup>87</sup> MAQ exchange, pp. 21-17.

**Pharmacological pain relief****pethidine**

- a narcotic drug similar to morphine frequently given intramuscularly to the mother during labor. It has been associated with maternal side effects such as nausea, vomiting, and sedation. It regularly crosses the placenta and is associated with respiratory difficulties of the newborn if it is administered 2-3 hours before birth. It has been shown to hinder early breastfeeding behavior and to cause more crying in the newborn.<sup>88</sup> Some research has pointed to the fact that fetal exposure to the drug may be associated with addictive behaviors later in life.<sup>89</sup>

Twenty-four hospitals (96%) reported using pethidine although the frequency of use was not specified. Only one hospital reported using it rarely.

**epidural analgesia**

- Epidurals slow down labor, increase the use of oxytocin, increase the likelihood of vaginal instrumental delivery and Caesarean section, and may cause complications in the mother and newborn.<sup>90</sup> It has been shown, as pethidine, to hinder early breastfeeding behavior and to cause more crying in the newborn.<sup>91</sup>

The routine use of epidural analgesia in WB maternity facilities was very low. Fourteen hospitals (56%) reported using it, but most of them for only a small number of cases. The rate of use was highest in private and NGO hospitals and lowest in governmental and the UNRWA hospitals.

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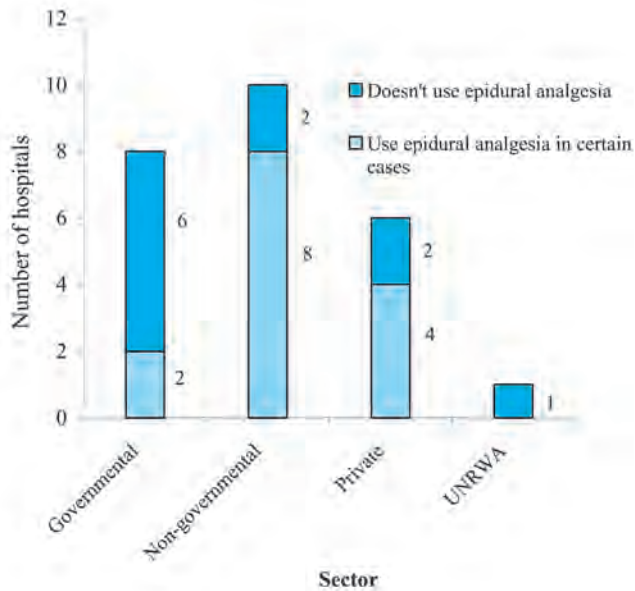
<sup>88</sup> Ransjo-Arvidson A et al. "Maternal analgesia during labor disturbs newborn behavior: effects on breastfeeding, temperature, and crying." *Birth* 2001; 28 (1): 11.

<sup>89</sup> Caton D et al. "The nature and management of labor pain." *American Journal of Obstetrics and Gynecology* 2002; 186 (5): S9

<sup>90</sup> Goer H, pp. 264-273.

<sup>91</sup> Ransjo-Arvidson et al., p. 11.

**Figure 16: Use of epidural analgesia by sector**



The use of epidural analgesia was highest in hospitals in the middle region and in hospitals with a low caseload. Other drugs were used less frequently for analgesia like thiopental sodium (Pentothal) and midazolam (Dormicum).

**Induction and augmentation of labor**

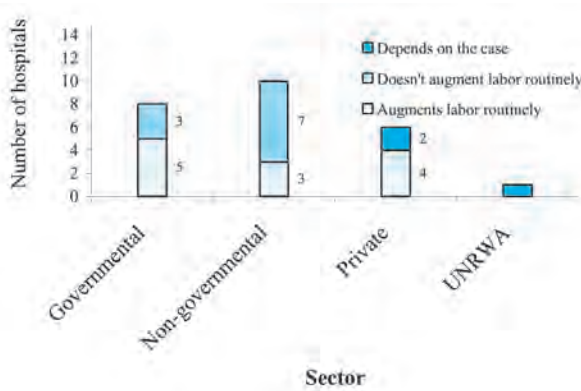
Twenty-two hospitals (88%) reported that they don't routinely induce labor.

Three hospitals (12%) reported that labor is routinely induced.

Approximately one-half of the hospitals reported routine augmentation of labor.

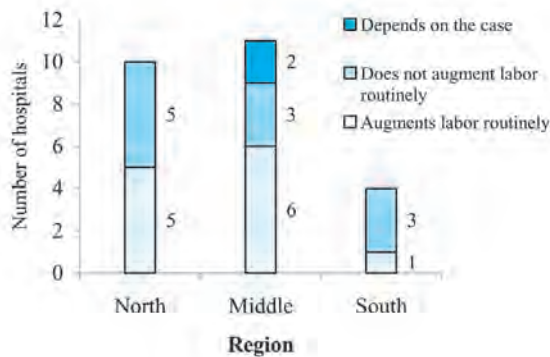
When the rate of augmentation was compared among hospitals in different sectors, it was found that this rate was lowest in NGO and UNRWA hospitals and highest in governmental and private hospitals.

**Figure 17: Augmentation of labor by sector**



The lowest rate of augmentation was in the south, whereas one-half of all hospitals in the middle and north augmented labor routinely.

**Figure 18: Augmentation of labor by region**



**The use of oxytocin during the first stage of labor:**

- Oxytocin during the first stage of labor may be used to accelerate labor. Its use may be associated with the hyperstimulation of the uterus and fetal distress, particularly in situations where continual monitoring cannot be guaranteed, and it may increase the risk of fetal death or morbidity.<sup>92</sup>

<sup>92</sup> Dujardin, B et al. "Oxytocics in developing countries." *Int J Gynecol Obstet.* 1995 (50) : 243-251.

Oxytocin was reported as the main method of augmentation in 12 hospitals (48%).

***Use of medications in labor and delivery***

The head obstetrician and/or the head midwife were asked about the use of certain drugs in their hospital. The results are shown in the following table.

**Table 8: Medications for labor and delivery**

<b>Name of the drug</b>	<b># and % of hospitals using it</b>
oxytocin	25(100%)
ergometrine	24(96%)
vaginal prostine	20(80%)
magnesium sulfate	16(64%)
nitrous oxide	1(4%)

***Bladder catheterization***

- During normal labor the woman should be regularly encouraged to empty her bladder, which makes the routine use of bladder catheterization unnecessary. Bladder catheterization may cause urinary tract infection for the mother in the postpartum.

Ten hospitals (40%) reported that bladder catheterization is done routinely, while fifteen hospitals (60%) reported that it is not.

Bladder catheterization was practiced more in governmental and private hospitals (50%) than in NGO hospitals (30%) and it was not used routinely in the UNRWA hospital.

It was used less in hospitals in the south than in the middle and the north, and there was no difference in practice according to caseload of the hospital.

**The timing of bladder catheterization:**

Among the ten hospitals who routinely used this practice:

- Two hospitals reported that it is done before and after delivery.
- Two hospitals reported that it is done during late first stage.
- One hospital reported that it is done before delivery.

One hospital reported that it is done during the second stage.  
Four hospitals reported that it is done routinely without mentioning when during labor.

### ***Care during the second stage of labor***

#### ***Position of the mother and mobility during the second stage of labor***

- The woman should be encouraged to choose the position that is most comfortable for her to give birth. Lying down on the back (supine position) or with legs in stirrups (dorsal lithotomy position), which is uncomfortable for women and does not promote the descent and the birth of the baby, is associated with more negative maternal and neonatal outcomes. On the other hand, use of the upright or lateral position is associated with a shorter second stage of labor, fewer assisted deliveries, fewer episiotomies, fewer reports of severe pain, and less abnormal fetal heart rate patterns.<sup>93</sup>

In 24 of the hospitals (96%) women were reported to give birth in the lithotomy position, either with or without stirrups. In ten hospitals (40%) the women were reported to give birth in the lithotomy position with their legs in the stirrups. Only one hospital reported that the semi-recumbent position was the usual position for delivery. Six hospitals reported that sometimes the semi-recumbent position is used.

#### ***Routine use of episiotomy***

- Routine or liberal use of episiotomy is a form of care for which there is clear evidence of ineffectiveness and the likelihood of harm.<sup>94</sup> Restricted episiotomy compared to routine episiotomy is associated with less perineal trauma, less suturing and fewer complications. It is associated with no increase in the incidence of 3rd degree tears, dyspareunia, or urinary incontinence.<sup>95</sup>

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<sup>93</sup> MAQ exchange, pp. 21-22.

<sup>94</sup> Enkin M et al., p. 295.

<sup>95</sup> MAQ exchange, pp. 21-23.

Fifteen hospitals (65%) reported that routine episiotomy was done for all primigravida, and three reported that it was done for 80% of primigravida. Five hospitals (23%) reported that it was used only if indicated. Two of these hospitals were private, two were governmental and one NGO.

### ***Care during the third stage of labor***

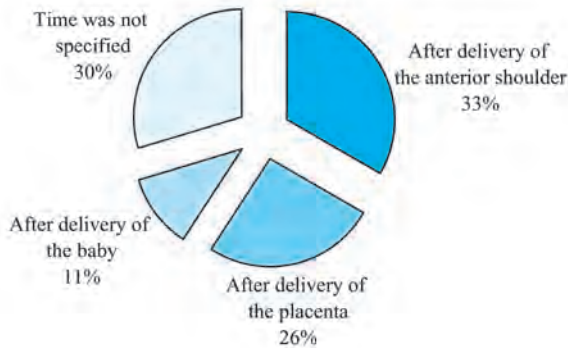
#### **Routine prophylactic use of oxytocic drugs**

- The routine use of oxytocic drugs in the third stage of labor will result in a reduced risk of postpartum hemorrhage.<sup>96</sup>

Twenty-three hospitals (92%) reported routine use of syntometrine (oxytocin and ergometrine) and one hospital of methergine (ergometrine).

The reported timing of use of oxytocics in the third stage of labor differed among the hospitals. Approximately one-third of the hospitals reported using the oxytocic drugs after delivery of the anterior shoulder, one-quarter reported use after delivery of the placenta and a few after delivery of the baby.

**Figure 19: The timing of administration of oxytocic drugs**



#### **Controlled cord traction**

- Controlled cord traction involves traction on the umbilical cord while maintaining counter-pressure upwards on the lower segment of the uterus. In two trials controlled cord traction resulted in less blood loss and shorter third stages,

<sup>96</sup> Enkin M et al., p. 308.



but the data is not sufficient to make a recommendation for routine use.<sup>97</sup>

Twenty-one hospitals (84%) reported using controlled cord traction, while four hospitals (16%) reported not using it.

### **The timing of cord clamping**

- The umbilical cord can be clamped immediately after birth or a few minutes later. Late clamping may prevent iron deficiency anemia in childhood, but there is insufficient evidence to make a recommendation.<sup>98</sup>

Sixteen hospitals (64%) reported the cord was clamped immediately after the birth of the baby. One hospital reported that clamping the cord was done one minute after delivery. Four hospitals (16%) reported that milking the cord was done first and then clamping after 30 seconds. Four hospitals (16%) reported that late clamping of the cord was practiced. In hospitals with high caseloads the cord was more likely to be clamped immediately, while in hospitals with low caseloads, birth attendants were more likely to wait before clamping the cord.

### **Estimation of blood loss and control of the uterus**

All of the maternity hospitals reported that the birth attendant estimated the blood loss and controlled the uterus for contraction to prevent hemorrhage.

### **Care of the newborn**

#### **Suction of the newborn**

- Healthy newborns require no suctioning, as they can clear their own airways. If suction is required, suction bulbs rather than catheters should be used, because suction bulbs are less likely to induce arrhythmias. There is no justification for routine gastric suctioning, which may cause bradycardia and disruption of prefeeding behavior.<sup>99</sup>

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<sup>97</sup> Enkin M et al., p. 304.

<sup>98</sup> WHO, p. 33.

<sup>99</sup> Enkin M et al., p. 419.

Eighteen hospitals (72%) reported that suction of the newborn was practiced routinely, while seven (28%) reported that it was not applied. Most hospitals reported routinely suctioning both the mouth and the nose of the newborn. Twenty hospitals (80%) reported using an electrical suction machine for this purpose.

**Maintaining the body temperature of the newborn**

- Preventing heat loss by drying the newborn (particularly the head), giving the baby to the mother, facilitating skin-to-skin contact, and covering the newborn with a dry warm blanket should be routine practice for all births. Newborns exposed to cold may develop metabolic acidosis during the first two hours of life.<sup>100</sup>

Twenty hospitals (80%) reported that the newborn was kept warm by using heated resuscitation tables. Four hospitals (16%) reported that the newborn was kept warm by drying and wrapping the baby with dry towels. Only one hospital reported that the baby was placed on the mother's abdomen.

**Early skin-to- skin contact between mother and baby**

- Early skin-to-skin contact between mother and baby helps to keep the baby warm. It encourages bonding between the two. It is also advantageous for the newborn to come in contact with their mother's skin bacteria, which helps the baby to resist hospital infections.<sup>101</sup>

Thirteen hospitals (52%) reported that they encouraged early skin-to-skin contact, while nine hospitals (36%) reported that they did not and three only sometimes. There was no significant difference in the use of skin-to-skin contact among the different hospital sectors.

**The timing of skin-to-skin contact**

Eleven hospitals (44%) reported that it was done immediately after the birth of the baby.

One hospital reported that it was done after checking and cleaning the baby in the delivery room. Two hospitals reported that it was done according to the mother's request.

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<sup>100</sup> Enkin M et al., p. 419.

<sup>101</sup> WHO, p. 33.

**Exclusive breastfeeding**

- Exclusive breastfeeding (without any supplemental liquids) until six months of age is the optimal form of nutrition for the healthy newborn. The short-term and long-term health benefits of breastfeeding include reduced infant morbidity from gastro-intestinal, respiratory, urinary tract and middle-ear infections and less atopic illness. Breastfeeding is associated with higher scores for cognitive development and has a long-term cardio-protective effect.<sup>102</sup>

All the hospitals reported that they follow the policy of exclusive breastfeeding after a normal birth.

**Early initiation of breastfeeding**

- Initiation of breastfeeding soon after birth enhances the mother's attachment to her baby. The newborn also benefits from the properties of colostrum by early sucking.

Seventeen hospitals (68%) reported that breastfeeding was initiated during the first 30 minutes after delivery. Five hospitals (20%) reported that it was practiced after 1-2 hours.

One hospital reported that it was practiced after 4-6 hours. Two hospitals reported that it was done after the mother had rested.

**Eye prophylaxis**

- Routine chemical prophylaxis after birth to prevent bacterial ophthalmia may be useful in regions where the incidence of conjunctivitis is high. However, this does not appear to be the case in the WB.<sup>103</sup> When used, it should be applied only one hour after birth when the mother and the newborn have been able to enjoy closeness, as it may inhibit visual responses. Tetracycline and erythromycine are more effective than silver nitrate.<sup>104</sup>

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<sup>102</sup> Sikorski et al. "Support for breastfeeding mothers" (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2002. Oxford: Updated Software.

<sup>103</sup> Information provided by specialists from St. John's Ophthalmic Hospital in Jerusalem, 2002.

<sup>104</sup> Enkin M et al., p. 421.

Ten hospitals (40%) reported that they routinely put medication in the eyes of the newborn; tetracycline ointment was used in all of these hospitals. Fifteen hospitals (60%) reported that they did not routinely use eye prophylaxis. None of the governmental and UNRWA hospitals used eye prophylaxis, but rather the private and NGO hospitals tended to use it.

### **Vitamin K injection**

- Intramuscular vitamin K is the most reliable and effective prophylaxis to prevent hemorrhagic disease of the newborn.

Twenty-four hospitals (96%) reported giving vitamin K intramuscularly to the newborn after birth, and only one hospital reported not giving it.

### **Rooming-in**

- 'Rooming-in' refers to a 'baby-friendly' hospital practice of keeping the mother and baby together in the postpartum, rather than separating them with the newborn in a centralized nursery. This practice promotes breastfeeding and protects newborns from infections. Rooming-in is better for the mother and baby, is much less expensive than maintaining a nursery, and avoids the risk of an epidemic of newborn infections arising in the nursery.<sup>105</sup>

Twenty-one hospitals (84%) reported that they follow the policy of rooming-in, while three private hospitals with a low caseload did not practice it and usually kept the baby in the normal nursery. One hospital reported that rooming-in depended on the mother.

### **Immediate postpartum care**

#### **The average length of hospital stay after normal delivery**

- Close monitoring of the mother for the first 6 hours postpartum is necessary to detect an atonic uterus and hemorrhage. In developing countries, one-half of maternal deaths are due to postpartum hemorrhage, for the most part during the

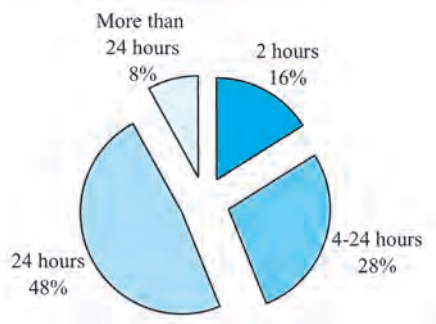
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<sup>105</sup> Rooks J. 1997. *Midwifery and Childbirth in America*. Philadelphia: Temple University Press, p. 339.

hours following the birth.<sup>106</sup> Hospital discharge 24 hours after birth is safe and cost-effective when accompanied by early follow-up of the mother and the infant.

The average length of stay in the hospital after normal birth ranged between 2-48 hours, with half of the hospitals reporting that they discharged women after 24 hours.

**Figure 20: The average length of hospital stay after normal delivery**



The shortest hospital stay was in governmental hospitals, where most of them discharged mothers and newborns within 2-12 hours after the birth. NGO hospitals discharged mothers usually after 24 hours but sometimes sooner. Primarily hospitals with high caseloads reported discharging mothers after a shorter hospital stay, while hospitals with low caseloads discharged them after a longer stay.

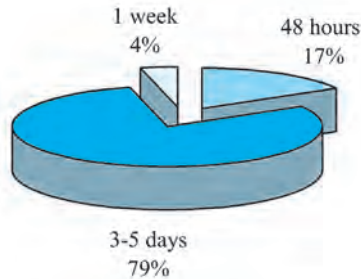
**The average length of hospital stay after a Caesarean section**

The average length of stay after a Caesarean section ranged between 48 hours to one week. Seventy-nine percent of the hospitals discharged the mothers and newborns after 3-5 days.

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<sup>106</sup> MAQ exchange, pp. 21-30.

**Figure 21: The average length of hospital stay after a Caesarean section**



**Counseling the mother after birth**

- Consistent advice to new mothers is considered to be a form of care that is likely to be beneficial. Encouraging early mother-infant contact, promoting breastfeeding as soon as the mother and infant are ready, providing skilled help with the first breastfeeding session including correct positioning of the baby at the breast are all beneficial forms of care. Having access to advice and information at home after the birth is also important.

**Breastfeeding:**

Twenty-two hospitals (88%) reported that they gave advice regarding breastfeeding, while two hospitals (8%) reported that they did not.

**General advice:**

Twenty hospitals (80%) reported that they gave general advice. Two reported distributing pamphlets, while four reported that they did not advise at all. However, further discussion indicated that the counseling is not systematic nor documented. The reported content of the advice concerned mainly the subjects of hygiene, episiotomy care, newborn colic and exercise.

**Contraception:**

Counseling regarding contraception was not very frequent, as only three hospitals reported that they offered this counseling routinely and three other hospitals gave it only if it was requested by the mother.

## **b) Type of care provider for professional support during normal childbirth**

When the health providers were asked who assisted women in normal birth, it was found that midwives usually assisted all of the stages of labor. The exceptions were primarily private patients, high risk cases and sometimes primiparous women.

### ***First stage assistance***

Midwives assisted the first stage of labor in the different hospital sectors and in the different regions.

Sixteen hospitals (64%) reported that midwives assisted birthing women during the first stage of labor. Four hospitals reported that doctors (specialists and/or residents) assisted during the first stage. Four hospitals reported that either midwives or doctors assisted during the first stage. Midwifery care during the first stage was reported also for the private maternity facilities, where often the obstetrician was called to the hospital primarily for the second stage. Doctors assisted during the first stage more often in hospitals with higher caseloads (more than 100 births per month).

### ***Second stage assistance***

Midwives assisted the second stage of labor in most cases. The exceptions were private cases, complicated cases and sometimes primiparous women.

Nine hospitals reported that midwives assisted during the 2nd stage, three reported that doctors did, and seven claimed that the doctor and midwife worked together. Two hospitals said that it was either one or the other. Two hospitals reported that doctors assisted during the 2nd stage if it is a private case where the woman pays the doctor for delivering her; midwives assisted the other cases. One hospital reported that doctors assisted 2nd stage in the case of primiparae while the midwife assisted the multiparae.

It was found that midwives assisted during the second stage more often in governmental, NGO and UNRWA hospitals, while doctors assisted more often in private hospitals. Doctors were more likely to deliver the baby in the middle of the country and in hospitals with low caseloads, as these tend to be private hospitals.

### ***Third stage assistance***

Midwives assisted the third stage of labor in most hospitals; the exceptions were private and complicated cases.

Twelve of the hospitals reported that midwives assisted during the third stage of birth whereas three reported that doctors did. Seven reported that the doctor and the midwife worked together. Two of the hospitals said that doctors assisted the third stage for private cases or when indicated and the midwife assisted the rest. Doctors assisted the third stage more often in private hospitals, in hospitals in the middle of the country, and in hospitals with low caseloads, again because these are mainly private hospitals.

### **c) Reported capacity for monitoring and evaluation in the maternity facilities**

#### ***Reporting outcomes to the MOH***

All maternity hospitals reported maternal and neonatal statistics to the Palestinian MOH except for those in Jerusalem, who reported statistics to the Israeli MOH.

#### ***Use of registers***

Twenty-two hospitals (88%) reported using registers.

#### ***Use of records***

Twenty-four hospitals (96%) reported using records.

Twenty-one hospitals (84%) reported using consent forms before operations.

#### ***Evaluation***

Seventeen hospitals (68%) reported that they evaluate the outcome of deliveries and Caesarean sections.

#### ***Mechanisms for teamwork***

Twenty-one hospitals (84%) reported having some sort of mechanisms for teamwork in the form of morning reports and rounds.



***Women's satisfaction***

Sixteen hospitals (64%) reported that they measure women's satisfaction primarily by asking them informally about their experience. One hospital reported having a notebook where women wrote their comments and another hospital reported asking the mother to fill out a semi-structured questionnaire.

***Written protocols for normal birth***

Sixteen (64%) out of the 25 hospitals visited reported having written protocols, five in the governmental sector, seven NGOs, three private and one UNRWA. In other words, 63% of the governmental hospitals, 70% of the non-governmental hospitals and 50% of the private hospitals and the only UNRWA hospital reported having written protocols. In hospitals with caseloads more than 100 births per month, ten hospitals (77%) reported having written protocols while three (23%) did not. When these protocols were reviewed, most of them were either simple instructions or outdated protocols.

Nineteen hospitals reported that doctors and midwives used the same procedures for normal birth while two hospitals reported that different interventions were used by doctors and midwives. Three hospitals reported that only physicians assisted births.

***The hospitals' need for referral***

Fourteen hospitals (56%) reported that they referred some complicated maternity cases to other hospitals. Nine hospitals (36%), five governmental and four NGOs, reported that they did not have to refer cases most of the time. All the hospitals with low caseloads reported that they had to refer certain cases, while nine of the hospitals with higher caseloads (more than 100 births per month) reported not referring cases and three reported referring cases.

Prematurity was the main reason for referral of pregnant women to another hospital for giving birth. It was also reported that women in labor in private hospitals who needed an unplanned Caesarean section sometimes requested a referral during the course of labor to a governmental hospital, where the intervention was free of charge.

## **Section 6: Providers' perceptions and obstacles to adopting best practices**

Provider perceptions were informative and helped contextualize current practices. When midwives were asked how they supported normal birth, they expressed their belief in the physiological process of childbirth and awareness of their role in promoting it. However, this awareness also led them to express frustration with the conditions under which they worked. Working under chronic stress was described in every interview, as affecting both the needs and demands of the laboring women and the capacity of the health providers to ensure adequate care. Given the political conditions prevailing in the country during the time of fieldwork, many providers had to leave their families and live in the hospital for long periods. Obstetricians and midwives reported lower salaries in the governmental hospitals compared to the other sectors. Many of the obstetricians in the governmental and NGO sectors also had a private practice, which appeared sometimes to conflict with the needs of the hospital. Midwives in some of the hospitals, particularly the larger ones, reported very high workload levels and maintained that this affected the quality of care as well as staff motivation. Some reported resorting to interventions such as the use of pethidine and augmentation of labor with oxytocin to hasten the process in order to make room for the next case. Indeed, field observations support these findings pointing to very high caseloads particularly in the governmental hospitals, where laboring women often were crowded into the same room with only a curtain separating them and with little provider support, and sometimes with two women sharing the same bed in the postpartum ward.

Interviews also revealed that some health providers were generally not aware of which interventions were useful or harmful, and those who understood these considerations stressed the difficulty of changing engrained out-dated practices. Obstetricians understandably showed more interest in emergency cases than promoting normal childbirth. Some obstetricians in the larger referral hospitals raised the question of the need for alternative settings where low-risk women might give birth, so that they could improve the quality of care for high-risk patients. They remarked that obstetric complications seemed to have increased in recent times due to a number of factors: the high levels of anxiety frequently expressed by pregnant women due to difficult access to maternity services; the decrease in antenatal coverage for similar reasons; lack of sufficient staff to provide adequate intrapartum care; last minute arrivals at the hospital after delays at checkpoints; and late referrals from private hospitals when Caesarean operations were needed and women chose to transfer to the free governmental sector for the otherwise costly intervention.

## **VII. DISCUSSION OF MAIN FINDINGS**



## VII. DISCUSSION OF MAIN FINDINGS

This survey has investigated the reported patterns of care for normal birth in WB maternity facilities. It aims to provide information to guide efforts to improve childbirth care, both in the short-term emergency situation and the long-term perspective of building the health system. Although there are no simple solutions to the challenges of providing quality maternity care, particularly in a conflict situation, it is hoped that raising pertinent questions will stimulate a debate among health providers, planners and women themselves on which to base the development of effective and equitable policies and practices for childbirth care.

With the shift in hospital utilization patterns and the unpredictable limited access of staff and women in labor to maternity facilities, all hospitals have faced daunting challenges in providing safe and satisfying care. A critical assessment of routine intrapartum care within its particular context contributes to identifying which components might be most effective and which strategies for improvement most realistic. The discussion of the main findings includes the health providers' perceptions of their care, their working conditions and the emergency situation. Understanding the broader context within which childbirth is embedded is an essential framework for changing practices.

The main findings of this report emphasize the following points:

- 1) The on-going situation of conflict has disrupted in many ways the provision of maternal health care. **Limited access to services** of pregnant women and health providers has taken an incalculable toll on the quality of care provided and women and newborn's health and well-being.
- 2) In general, **the patterns of care for normal childbirth were frequently not consistent with the evidence of best practices.** Some harmful interventions, such as the lithotomy position for giving birth and the liberal use of episiotomy, are routinely practiced while other beneficial ones, such as continual caregiver support or the presence of a birth companion are not applied.

- 3) **Lack of knowledge, outdated habits, and understaffing and overcrowding** in certain hospitals were important factors explaining why beneficial practices that can be applied in this context were not implemented, and why harmful ones were practiced instead.
- 4) **Promoting normal birth and avoiding over-medicalization of the birth process with unnecessary interventions** is particularly important in a situation of conflict and scarce resources. Normal births without unnecessary technical interventions are relatively inexpensive<sup>107</sup> and are less likely to lead to iatrogenic complications, which is especially vital when access to higher levels of care is limited.
- 5) **A sufficient number of skilled birth attendants with appropriate attitudes, skills and time to support normal labor and birth are needed for safe childbirth.** Raising the issue of what models of care are most appropriate and sustainable for uncomplicated childbirth, including management structures and gender considerations that facilitate the process safely with a minimum of interventions, is essential for improving care.

The maternity hospitals in the WB reported considerable differences in their size, infrastructure, management style, content of care and human resources. These components of health services are all interrelated, and together, with women's preferences, influence the patterns of intrapartum care provision. In addition, the type of health provider assisting births is an important determinant of the content of care and the sustainability of the service. The caseload of the staff, the system of payment of medical acts, the decision-making processes and other organizational factors within the particular maternity facility also influence the quality and patterns of care. Although women's preferences in childbirth care were not a part of this survey, the utilization of services and the choice of maternity facility seemed to depend more on financial and geographical accessibility than on other factors. The findings of the study are discussed in further detail below, beginning with those components related to the organization of care and the human resources and followed by the content of care.

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<sup>107</sup> Nesbitt T. "Rural maternity care: new models of access." *Birth* 1996; 23 (3): 161-165.

## **Organization of care in normal birth**

### **Access to childbirth care**

The WB maternity facilities are relatively well-distributed among the north, center and south of the country; however, in the current context this distribution does not necessarily ensure access, as the hundreds of checkpoints frequently confine people to their village or neighborhood of residence (see p.29, importance of access). Out-of-hospital alternative settings for birth need to be planned, supervised and supported. Home birth and birthing centers can be made safer with standards and clinical guidelines and a supportive infrastructure including promotion of community midwives with back-up and referral, training, supervision and monitoring.

### **The distribution and size of maternity services**

The hospitals belonging to the governmental sector, where about one-half of the institutional births take place, tend to be large and urban, with the majority of them having more than 2,400 births per year, and two with over 5,000 per year. The governmental sector (with the exception of UNRWA) has the fewest maternity hospitals yet handles the largest share of deliveries in the WB. The governmental hospitals also have the fewest maternal health providers (obstetricians, residents, midwives and nurses) in relation to the number of deliveries. The private maternity hospitals constitute 40% of all WB maternity facilities, but only 13% of births took place in this sector. All private hospitals are relatively small with fewer than 1,200 births per year.

Small maternity units for normal childbirth have the potential advantage of being more flexible and thus better able to meet the individual needs of birthing women. But this depends on the standards of care that are maintained in each institution. These small facilities face the problem of sustainability, in spite of the fact that some just opened during the post-Oslo period, as both geographical and financial accessibility are currently barriers to their utilization. Many families can no longer afford to pay for health care, and thus have turned to the maternity services in the governmental sector, which are free of charge, since the MOH wavered fees for childbirth care (Al Aqsa insurance). Private and NGO hospitals charged different prices for a normal birth, ranging

between \$100-\$600. However, many of them in the past two years have had to lower their fees to attract clients. The shift in utilization from the NGO and private sector to the public sector has led to an imbalance between the demand for perinatal services and the supply of providers in the governmental hospitals, which inevitably affects the quality of care.

There is one governmental maternity facility, located in an area that became isolated from hospitals by frequent closures, that is quite small and different from the other hospitals in this sector. The head of the governmental health clinic and the midwives working there, with the support and involvement of the community, took the initiative to transform the clinic into a birthing center, where low-risk women from the area were able to give birth without taking the risk of a long and often dangerous journey to the nearest hospital. The facility is now in the process of being transformed into a small hospital, after the team raised funds for its expansion. Staff members were highly motivated and had a sense of ownership and accountability, in spite of the same low governmental sector salaries, because it was created by their initiative and resourcefulness and served a vital function in the community.

### **Physical infrastructure of maternity facilities**

Most of the large hospitals, particularly in the governmental sector, appeared to be very overcrowded. Laboring women were often crowded into the same room with only a curtain separating them and with little provider support, and sometimes with two sharing the same bed in the postpartum ward. Over half of the hospitals had separate labor and delivery wards, which tends to be less comfortable for the woman in labor who must change rooms at a critical moment in order to give birth. All of them had heated resuscitation tables, but not necessarily a sufficient number for all of the births. At the same time the practice of skin-to skin contact with the newborn on the mother's chest to maintain warmth after birth was rarely practiced. All but one of the maternity facilities reported having at least one operating room. The hospitals in the north were less well supplied with neonatal intensive care units (NICU). However, this survey did not assess the criteria for the NICU. As effective intensive care requires an elaborate system of care provision and referral with costly equipment and an adequate number of highly trained staff, it is doubtful whether many of the NICUs that do exist can provide this type of optimal intensive care.



**Standards of care, regulation and accountability**

Even though the emergency situation makes regulation very difficult, all maternity facilities need to be integrated into the larger health system, with a system of referral and of monitoring and regulation in order to ensure quality of care and accountability. Health providers did not report any type of external monitoring or regulation of the services, other than reporting maternal and neonatal statistics to the Palestinian MOH (or, in the case of the Jerusalem hospitals, to the Israeli MOH).

In many hospitals, standards of care have not been established for low-risk uncomplicated births. Just over one-half of the hospitals reported having written protocols, primarily in the NGO and governmental sectors, and rarely in the private sector. However when these protocols were reviewed, most were either simple instructions or outdated guidelines. The use of protocols did not appear to be an integral part of the management system as evidenced by the fact that even within the same sector, hospitals reported diverse practices. But the importance of training was evident in this respect, as midwives trained in the teaching hospital did tend to utilize the same protocols when they moved to other institutions.

Most of the hospitals kept patient records and a maternity ward register of all births. However, it would appear that the reporting of still births and early neonatal deaths is not always accurate. In spite of the availability of a perinatal health card, developed a decade ago as a home-based record to facilitate the transfer of information among the different health providers and levels of care during the perinatal period, it would seem that it is rarely used. Maternity facilities reported that many women arrive in labor without any information about their previous obstetric history or the current pregnancy. The card is available and its use would help to guide the management of labor and facilitate referral. Over one-half of the hospitals visited, including all of the hospitals with a small number of births, reported that they needed to refer cases some of the time, with prematurity being the main reason for referral.

The majority of maternity hospitals reported that they evaluate outcomes in some way; however, there appears to be no systematic means for auditing obstetric outcomes in most facilities. The

performance of staff is usually evaluated annually, but providers report that supportive supervision is frequently lacking and that there are few incentives for improvement. Mechanisms for teamwork usually consist of reports at the beginning of each shift and rounds in some of the hospitals. However, most of these mechanisms are informal and not necessarily systematized.

Women's satisfaction with care was rarely evaluated. How to put women at the center of the childbirth experience is an issue which needs to be brought to the attention of health providers. Communication, support, shared decision-making and informed choice should be a central part of childbirth care.

Auditing obstetric outcomes and management structures and attitudes that promote teamwork among maternity care providers would improve the quality of care. Modalities for placing women with their diverse needs and preferences at the center of the childbirth event should be a central part of the debate on changing childbirth practices.

### **Human resources for childbirth**

Childbirth care was provided by a team of health providers in all of the maternity facilities, involving obstetricians, physicians, midwives, and nurses. However, the model of care and the specific role of each provider varied among the institutions.

According to the reported roles of each type of caregiver in maternity facilities, midwives and nurses were the key providers of hands-on care during normal childbirth. In most governmental hospitals, some NGO hospitals, and the one UNRWA hospital, midwives are responsible for care during the three stages of normal labor and birth under the supervision of the obstetrician. In the private hospitals, the obstetricians usually did the actual delivery; however, some private hospitals also reported that women can request to have a midwife assist her birth, if she prefers, a policy which was instituted in order to meet the demands of those who preferred to have a female birth attendant and/or who required less costly medical fees. In contrast to the three other sectors, the private hospitals tended to be staffed more by nurses than midwives, which reflected the tendency there for obstetricians or

physicians to take the key role, with nurses assisting them. More midwives are practicing in maternity facilities in the north of the country than in the middle or southern regions.

The NGO and private hospitals tended to have more staff in relation to the number of births than the governmental sector. It would appear that the midwives and nurses in the governmental hospitals have a workload that is at least twice as much as the other hospitals. The understaffing of some maternity hospitals, which inevitably affects the quality of care, raised questions concerning the minimum human resources required for safe childbirth. This problem has been accentuated with the changing pattern of hospital utilization since September 2000. The number of births has increased in the governmental facilities, without necessarily a corresponding increase in the number of staff. Midwives complained of burn-out and of no longer being able to provide midwifery care, as they only have time to 'catch' one baby after another. They did not feel like they were practicing their vocation, which they chose, for the most part, because they liked the work and wanted to support women during birth.

Obstetricians provide care for high-risk women in labor and for complications of normal labor and delivery. Most midwives and nurses are not specialized in such care. Obstetricians working in maternity facilities were unevenly distributed across the regions and the sectors. More obstetricians were practicing in the center of the WB, where the percentage of births was lower than in the north or the south. In addition, more obstetricians were working in the private sector than in the governmental or NGO sectors, where most of the births took place. There were very few female obstetricians in the WB. Out of the eighty-four hospital staff obstetricians, only six were females; five additional female obstetricians were reported to be working on a private basis. (There was a slight change among the young residents currently in maternity hospitals, where the proportion of male to female was 79% and 21% respectively.) However, the scarcity of female specialists raised questions about gender considerations in health management and about the acceptability of services in a country where many women prefer female birth attendants.

Many of the obstetricians working in maternity hospitals also had a private practice, and thus were not always present in the

hospitals. Some of the larger hospitals, however, adapting to the needs of the emergency situation and the lack of mobility, had ensured the twenty-four hour presence of specialists, who lived for a period of time at the hospital. If one can assume that many of the Caesarean operations and high-risk cases were ending up in the governmental hospitals because they were free of charge, it would appear that the obstetricians and the midwives/nurses in this sector assumed a large proportion of the complicated deliveries in conditions of understaffing. Some obstetricians in these hospitals spoke of the need for alternative settings for normal births, so that hospital staff would be able to give prompt treatment to complicated cases, as the obstetricians are primarily needed for surgery. They also explained that during this period complicated cases had increased and tended to be referred at the last moment or were delayed at checkpoints in reaching the hospital.

The skills of midwives and obstetricians are complementary and interdependent. Defining each of their roles in childbirth care according to their training and skills and promoting teamwork among the different types of providers is necessary for effective and sustainable childbirth care.

Midwives are often better trained in the physiological process of normal childbirth, in the prevention of complications and in the provision of social support and one-to-one care during birth and the post-partum period. The obstetricians and physicians, on the other hand, are specialized in detecting risks and in interventions during birth to treat complications. Both are needed in maternity facilities for safe and satisfying childbirth care.

### **Content of care for normal childbirth**

This survey investigated the reported practices during normal (uncomplicated) labor and birth in WB maternity facilities in order to assess whether or not the current practices are based on sound scientific evidence and whether they are practical in the local context. This study identified a large gap between reported practices and evidence-based care for normal childbirth, which has critical implications for practice and for policy-making.

## **Care during the first stage of labor**

### ***Technical interventions during labor***

While many interventions in labor and birth are effective when specifically indicated, their routine use for all births may be harmful and an inefficient use of resources. The study indicated that the routine procedures for normal birth were not standardized and that frequently they were a function of the style of practice of the head obstetrician or convenience rather than based on scientific evidence.

The harmful or ineffective practices should be discontinued, as they are likely to cause complications or discomfort, which particularly in a context of limited access to care and scarce resources could be critical for maternal and newborn health. About one-half of WB maternity facilities still routinely used enemas and pubic shaving, which are no longer recommended. Over one-half of the hospitals gave routine intravenous infusions, rather than permitting the woman in labor to eat and drink fluids, which shortens labor duration and reduces the need for oxytocin infusion. Most hospitals allowed the woman to take different positions and to move around during labor, which helped to facilitate the progress of labor. However, in some of the crowded hospitals, there would appear to be little space in the labor and delivery room to encourage mobility while, at the same time, monitoring regularly the fetal heart rate. While all hospitals reported the intermittent use of electronic fetal monitors or hand-held ultrasound monitors to assess fetal heartbeat, providers also claimed that this equipment was difficult to maintain and repair because of the frequent closures. Only one-fourth of the hospitals had a fetal stethoscope (Pinard), a cheap and appropriate tool in such a context. To monitor the progress of labor, all hospitals practiced routinely the vaginal exam, but its frequency and repetition by different caregivers was in some cases cause for concern due to the risk of infection and women's discomfort. Only a few hospitals used the partograph, which is also an inexpensive tool that can prevent complications and unnecessary interventions by more effective management of labor.

All but one of the hospitals used pethidine, a narcotic drug given as an injection during labor for pain relief. It was not possible to ascertain the frequency of its use or the outcome on the newborn.

However, pethidine is associated with respiratory difficulties of the newborn, hinders early breastfeeding behavior, and high doses during labor have been associated with addictive behaviors later in life with fetal exposure to opiates during labor.<sup>108</sup> Furthermore, a recent study showed that women reported that narcotics as pain relief during labor were less likely to be rated as very helpful than five drug-free methods, such as hot or cold objects, hands-on techniques, and position changes. Midwives reported that they used pethidine more frequently when the maternity ward was understaffed and they didn't have time to stay with the woman in labor to give her support. The frequent use of pethidine is a concern in this particular context, where the timely presence of a health provider skilled in resuscitation of the newborn cannot always be assured. Many of the smaller hospitals have a pediatrician on call. Epidural analgesia was not available for frequent use during normal childbirth, and most hospitals did not have enough sufficiently skilled staff to safely implement and monitor its use.

Oxytocin to speed up labor was used in many of the maternity facilities. The frequent use of oxytocin during the first stage of labor is also worrisome in this context. Close monitoring of the dose, the contractions and the fetal heart rate is not always possible in conditions of understaffing, thus increasing the risk of fetal death or morbidity.<sup>109</sup>

Bladder catheterization is another intervention practiced routinely in forty percent of the hospitals during normal labor, which may be harmful to the woman. If the midwife has the time to encourage the woman to empty her bladder regularly during labor, this procedure should not be routinely necessary.

### ***Social support during labor***

Caregiver support during labor and birth has been shown to reduce the need for pain relief and for Caesarean operations and to result in better outcomes for the newborn. Three-fourths of the maternity hospitals report that the midwife gives continual support, and eighty percent report using non-pharmacological methods of pain relief such as coaching, massage, deep-breathing etc. After further

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<sup>108</sup> Caton D et al., p. S9.

<sup>109</sup> Dujardin B et al., pp. 243-251.

discussion with the midwives, however, many affirm that they frequently do not have time to support the birthing woman. Observation in the delivery wards confirmed that women frequently labor alone without any support or companionship. Creating working conditions which facilitate one-to-one midwifery support during labor and birth may not be realizable in the short-term, but ultimately would be a cost effective measure for improving childbirth care.

Forty percent of the hospitals do not permit a family member of the woman's choice to remain with her during childbirth. All of the eight governmental hospitals, where almost one-half of the births take place and where midwives rarely have time to give one-to-one care, did not allow the mother to choose to have a family member stay with her. The reason usually given by the obstetricians and the midwives for this policy is lack of space, the need for privacy, and the perceived burden of additional lay people interfering with hospital routines. While observation indeed points to lack of space as issues to contend with, one would still question whether the negative effect of laboring alone with little provider support is not worse in this particular cultural and social context than the risk of lack of privacy, with more older women in the delivery room.

Female relative support in a developing country has been shown to be a low-cost intervention associated with a higher frequency of normal delivery and fewer interventions.<sup>110</sup> It is both culturally acceptable and a resourceful way to provide comfort and non-pharmacological pain relief. In light of this evidence and given the difficult Palestinian context for health provision, it would seem important to reconsider this cost-effective practice of social support.

### **Care during the second stage of labor**

Encouraging the woman during the second stage of labor to choose the upright, lateral or semi-sitting position leads to a shorter duration of this period, fewer interventions and better outcomes for the newborn. All but one of the maternity hospitals reported that the woman gave birth flat on her back, and frequently with her legs up in stirrups. Raising awareness of the benefit of different positions and training of birth attendants in their use might improve this practice.

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<sup>110</sup> Madi BC et al. "Effects of female relative support in labor: a randomized controlled trial." *Birth* 1999; 26: 4-8.

Only one-fifth of the hospitals reported that they do not use routine episiotomy, in spite of the evidence that routine use of episiotomy is harmful. The belief that an episiotomy is necessary for all primigravida is widespread. Training is needed to update providers on the selective use of this intervention.

### **Care during the third stage of labor**

The routine prophylactic use of oxytocic drugs in the third stage of labor reduces the risk of postpartum hemorrhage. All but one of the maternity hospitals followed this beneficial procedure. All hospitals reported that the birth attendant estimated the blood loss and controlled the contraction of the uterus, essential practices during this critical period of childbirth. Routine suctioning of the newborn was practiced by about three-fourths of the maternity facilities, even though this intervention is no longer recommended. The skills of midwives, nurses and physicians in neonatal resuscitation should be regularly updated, as this timely intervention is very important for the outcome of the newborn, and the specialists are not always available. Most hospitals reported maintaining the newborn's body temperature by using heated resuscitation tables.

Encouraging skin-to skin contact by putting the newborn at birth on the mother's abdomen was not a routine practice. Its application should be promoted given the difficulty of some hospitals in acquiring and maintaining a sufficient number of heated resuscitation tables and given the additional advantages of bonding and increasing the newborn's resistance to infection.

About two-thirds of maternity facilities practiced early initiation of breastfeeding. All but one of the hospitals gave routine Vitamin K injection to the newborn and about forty percent of them used routine eye prophylaxis after the birth.

### **Immediate postpartum care**

Most of the hospitals had a policy of discharging the mother and newborn twenty-four hours after a normal birth. However, it was reported that many women and newborns left earlier, either due to overcrowding in the hospitals or to anxiety about getting back to their families as quickly as possible in the unpredictable and



often dangerous conditions of their every day life. Governmental hospitals discharged mothers and newborns within two to twelve hours after the birth. Most hospitals claimed to give some advice to the mother, primarily on breastfeeding, but the short hospital confinement did not facilitate very much counseling in the postpartum. All facilities reported that they followed a policy of exclusive breastfeeding after a normal birth and most of them practiced rooming-in.

Lack of follow-up of the mother and newborn in the first week of the postpartum after early discharge from the hospital is a real gap in health care provision. Home-based maternal and neonatal care by community midwives, *dayat*, and health workers, who seem to be underutilized in the health system, would be a feasible way to provide this necessary care, prevention and social support.

## Conclusion

Health providers and birthing women have done a remarkable job during this on-going period of crisis to ensure services and to give birth under difficult circumstances. Their courage and determination are a real affirmation of the life-giving process of childbirth.

The reported practices of the maternity facilities in the WB indicate that some care during normal childbirth is not consistent with recommendations for effective care. Unnecessary routine interventions are particularly critical in the Palestinian context, where access to higher levels of care cannot be ensured and where human and financial resources are scarce. Other practices, such as one-to-one support during labor and birth, that has been shown to be beneficial, are not frequently part of institutionalized childbirth care. Implementing change in institutions is not an easy matter. However, the stakes are so high, that perhaps the current situation of emergency opens a window of opportunity, where the efforts and motivations of policy-makers, providers, and women can reinforce each other in working toward safe and satisfying childbirth practices. It is hoped that this survey will point to areas of improvement, so that women and their families, communities, health providers and policy-makers can work together to make childbirth care more effective and more satisfying for providers, women and newborns.



## ANNEX 1:

### Hospital List

#### Hospitals that were not visited but data on births and staffing were obtained:

<b>Name of hospital</b>	<b>Type</b>	<b>Location</b>
Nasser hospital	Private	Yatta/Hebron
Shahirah	Private	Hebron
Za'tari	Private	Hebron
Hamdan	Private	Hebron
Al-Dibs	Private	Bethlehem
Arab Specialized hospital	Private	Nablus
Nablus Specialized hospital	Private	Nablus
Al-Shifa'	Private	Jenin
Saint Mary	NGO	Bethlehem
Al-Ahli	NGO	Hebron
Al-Mohtaseb/Red Crescent	NGO	Hebron
Al-I'timad	Private	Hebron

#### Hospitals that were visited and surveyed:

<b>Name of hospital</b>	<b>Type</b>	<b>Location</b>
Arab Care hospital	Private	Ramallah
Red Crescent Hospital/Ramallah	NGO	Ramallah
Ramallah Governmental Hospital	Government	Ramallah
Al-Mustaqbal hospital	Private	Ramallah
Al-Nathir	Private	Ramallah
Khalid	Private	Ramallah
Makassed	NGO	Jerusalem
Red Crescent/Jerusalem	NGO	Jerusalem
Jerusalem Hospital (al-Muhtadi)	Private	Jerusalem
Al-Dajani	Private	Jerusalem
Jericho governmental Hospital	Government	Jericho
Hebron governmental hospital	Government	Hebron
Jenin Governmental Hospital (Khalil Suleiman)	Government	Jenin
Al-Amal hospital (PFS) Jenin	NGO	Jenin
Al-Razi Zakat hospital	NGO	Jenin
Holy Family hospital	NGO	Bethlehem
Qalqilia hospital	UNRWA	Qalqilia
Rafidia hospital	Governmental	Nablus

<b>Name of hospital</b>	<b>Type</b>	<b>Location</b>
Beit Jala hospital	Governmental	Beit Jala
Salfit	Governmental	Salfit
Saint Lukes hospital	NGO	Nablus
Shepherd's Field	NGO	Beit Sahour
Thabet Thabet	Governmental	Tulkarem
Red Crescent/Tulkarem	NGO	Tulkarem
Al-Ittihad	NGO	Nablus

## ANNEX 2:

### Interview questionnaire

**Name of hospital:** \_\_\_\_\_

Name of Interviewer: \_\_\_\_\_

Name of Interviewee: \_\_\_\_\_ Position/ Title \_\_\_\_\_

**Date of Interview:** \_\_\_\_\_

**Time interview started:** \_\_\_\_\_

Time interview ends: \_\_\_\_\_

1. What are the health services provided by your institution?

Prenatal care: yes \_\_\_ no \_\_\_

Prenatal classes: yes \_\_\_ no \_\_\_  
(specify)

Labor and delivery: yes \_\_\_ no \_\_\_ # of beds: labor \_\_\_ delivery \_\_\_

Average # deliveries/month \_\_\_\_\_;  
per year: 2001 \_\_\_\_\_ 2000 \_\_\_\_\_ 1999 \_\_\_\_\_

Postpartum unit: yes \_\_\_ no \_\_\_ # of beds: \_\_\_\_\_

Normal nursery: yes \_\_\_ no \_\_\_ # of cots: \_\_\_\_\_

NICU: yes \_\_\_ no \_\_\_ # of incubators \_\_\_\_\_

Postpartum care after discharge (follow-up visit): yes \_\_\_ no \_\_\_

2. Staffing: What are the total number of staff for labor and delivery:

a. specialists \_\_\_\_\_ residents \_\_\_\_\_  
RMW \_\_\_\_\_ RN \_\_\_\_\_ PMW \_\_\_\_\_ PN \_\_\_\_\_

b. what are the roles of each one?

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c. do you have any mechanisms for team work? (meetings etc.)

yes \_\_\_ no \_\_\_

if yes, what? \_\_\_\_\_

3. What processes do you use for reporting? \_\_\_\_\_

records? Yes \_\_\_ no \_\_\_  
log? Yes \_\_\_ no \_\_\_  
registers? Yes no \_\_\_  
other? \_\_\_\_\_

consent forms for specific procedures? Yes \_\_\_ no \_\_\_  
(May we see your statistics?)

4. What data do you report to the Ministry of Health?  
\_\_\_\_\_  
\_\_\_\_\_

5. What are the processes of evaluation? Do you evaluate...

*Staff*: yes \_\_\_ no \_\_\_  
if yes, how? \_\_\_\_\_  
\_\_\_\_\_

*Outcomes*: yes \_\_\_ no \_\_\_  
if yes, how? \_\_\_\_\_  
\_\_\_\_\_

*Women's satisfaction*: yes \_\_\_ no \_\_\_  
if yes, how \_\_\_\_\_  
\_\_\_\_\_

6. What is the cost of a normal birth? \_\_\_\_\_

- a. hospital delivery \_\_\_\_\_
- b. private delivery (range) \_\_\_\_\_
- c. special cases (UNRWA referrals) \_\_\_\_\_
- d. CS \_\_\_\_\_

7. What equipment/supplies do you have for normal births (specify #)

BP \_\_\_\_\_ O2 for mother \_\_\_\_\_ O2 for baby \_\_\_\_\_ mask for baby \_\_\_\_\_

Pinard \_\_\_ Doppler \_\_\_ EFM \_\_\_

heated resus. table \_\_\_\_\_ Operating room \_\_\_\_\_  
essential drugs: oxytocin \_\_\_\_\_ ergometrine \_\_\_\_\_  
magnesium sulfate \_\_\_\_\_ blood for transfusion \_\_\_\_\_  
vaginal prostine \_\_\_\_\_ other \_\_\_\_\_

**POLICIES AND PRACTICES CONCERNING NORMAL BIRTHS:**

8. Are *normal births* attended by obstetricians/physicians/midwives/ nurses ?

assistance during 1<sup>st</sup> stage: \_\_\_\_\_

assistance during 2<sup>nd</sup> stage: \_\_\_\_\_

assistance during 3<sup>rd</sup> stage: \_\_\_\_\_

9. Do you have written policies concerning normal births? yes \_\_\_ no \_\_\_

(if yes, please provide a copy).

If yes, by whom were they written? \_\_\_\_\_

-if yes, when were they written?

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10. Do doctors and midwives use the same procedures for normal births?

Yes \_\_\_ no \_\_\_ Explain: \_\_\_\_\_

\_\_\_\_\_

11. Do you accept all women in labor who come to deliver in your hospital?

Yes \_\_\_ no \_\_\_ .

12. If no, what cases do you refer elsewhere? Financial \_\_\_ unbooked \_\_\_  
complicated \_\_\_ fully occupied \_\_\_ other \_\_\_\_\_

13. What is your policy on rooming-in (baby stays with mother)?

\_\_\_\_\_

\_\_\_\_\_

14. What is your policy on breastfeeding? (exclusive or additional liquids given)

\_\_\_\_\_

\_\_\_\_\_

Do you routinely use the following practices for normal childbirth?

15. Temperature- yes \_\_\_ no \_\_\_ ; pulse\_ yes \_\_\_ no \_\_\_ BP: yes \_\_\_  
no \_\_\_

16. Do you do routine pubic shaving? yes \_\_\_ no \_\_\_

17. Do you do a routine enema? yes \_\_\_ no \_\_\_

18. Do you routinely put in an iv line? yes \_\_\_ no \_\_\_

specify: \_\_\_\_\_

19. Do you permit oral fluids during labor? yes \_\_\_ no \_\_\_  
specify: \_\_\_\_\_

20. Do you monitor the fetal heart rate? yes \_\_\_ no \_\_\_  
If yes, how?

-intermittent auscultation: yes \_\_\_ no \_\_\_

if yes, do you use: Pinard \_\_\_ Doppler \_\_\_

if yes, what is the frequency during 1<sup>st</sup> stage: \_\_\_\_\_ 2<sup>nd</sup> stage \_\_\_\_\_

-routine electronic fetal monitoring: yes \_\_\_ no \_\_\_

if yes, do you use continuous electronic surveillance? yes \_\_\_ no \_\_\_  
or periodic surveillance? yes \_\_\_ no \_\_\_

21. Do you give routine information and explanations to the mother: (specify)

-always: yes \_\_\_ no \_\_\_

-only when asked by the mother: yes \_\_\_ no \_\_\_

if yes, about what? \_\_\_\_\_

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22. Is the mother encouraged to adopt different positions and movement (ex. walking) during the 1<sup>st</sup> stage?  
(specify): \_\_\_\_\_

23. Does a health provider (midwife, nurse) remain with the mother during most of labor and delivery? yes \_\_\_ no \_\_\_

Specify \_\_\_\_\_

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24. Is the mother permitted to have a support person during labor and delivery?

husband: yes \_\_\_ no \_\_\_

other family member: yes \_\_\_ no \_\_\_ (whom? \_\_\_\_\_)

if yes, specify if the support person constantly remains with the mother during labor and delivery?

\_\_\_\_\_

25. Do you do vaginal exams during labor and delivery? yes \_\_\_ no \_\_\_

-if yes, how frequently? \_\_\_\_\_

-if yes, by different caregivers? Specify whom \_\_\_\_\_

-if yes, do you always use sterile disposable gloves? yes \_\_\_ no \_\_\_

specify: \_\_\_\_\_

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26. Do you routinely use a partogram? yes \_\_\_ no \_\_\_ (please provide a copy)

27. Do you routinely practice early amniotomy? yes \_\_\_ no \_\_\_  
if yes, specify dilatation: \_\_\_\_\_

28. Do you routinely induce labor?  
yes \_\_\_ no \_\_\_ if yes, with what? \_\_\_\_\_  
if yes, at what dilatation? \_\_\_\_\_  
if yes, the frequency of use: (% of low risk births) \_\_\_\_\_

29. Do you routinely augment labor?  
yes \_\_\_ no \_\_\_ if yes, with what? \_\_\_\_\_  
if yes, at what dilatation? \_\_\_\_\_  
if yes, the frequency of use: (% of low risk births) \_\_\_\_\_

30. What methods of pain relief do you use?

a. non-pharmacological (massage, relaxation, patterned breathing,  
shower, verbal coaching): yes \_\_\_ no \_\_\_ if yes, specify:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. pharmacological: yes \_\_\_ no \_\_\_

If yes, can you please brief us on the protocols/guidelines for use of  
sedatives/analgesics and/or anesthetics during labor and delivery? (indications;  
frequency)

-pethidine \_\_\_\_\_

-promethazine \_\_\_\_\_

-diazepam \_\_\_\_\_

-nitrous oxide \_\_\_\_\_

-epidural \_\_\_\_\_

-other \_\_\_\_\_

31. Do you use other medications routinely during normal labor?  
yes \_\_\_ no \_\_\_ if yes, what? \_\_\_\_\_

32. Do you routinely do bladder catheterization: yes \_\_\_ no \_\_\_

33. What position does the mother usually deliver in?

-lithotomy: yes \_\_\_ no \_\_\_ ; stirrups: yes \_\_\_ no \_\_\_

-semi-sitting: yes \_\_\_ no \_\_\_

-lateral: yes \_\_\_ no \_\_\_

-upright: yes \_\_\_ no \_\_\_

Explain: \_\_\_\_\_

34. Do you routinely do an episiotomy for normal births? yes \_\_\_ no \_\_\_

If no, what are the indications for its use?

\_\_\_\_\_

35. What percentage of women have an episiotomy? \_\_\_\_\_

primipara \_\_\_\_\_

multipara \_\_\_\_\_

35. Do you use routine prophylactic use of oxytocin or methergine (3<sup>rd</sup> stage)?

yes \_\_\_ no \_\_\_ if yes, what? \_\_\_\_\_

if yes, at what moment of delivery? \_\_\_\_\_

36. Do you routinely practice controlled cord traction? yes \_\_\_ no \_\_\_

37. When do you clamp the cord? (specify)

-immediately: yes \_\_\_ no \_\_\_

-late clamping: yes \_\_\_ no \_\_\_

38. Do you routinely examine the placenta? yes \_\_\_ no \_\_\_

39. Do you routinely measure the blood loss? yes \_\_\_ no \_\_\_

If yes, specify how: \_\_\_\_\_

40. Do you routinely suction the newborn? yes \_\_\_ no \_\_\_

\_\_\_\_\_

If yes, with what? \_\_\_\_\_

If yes, where do you suction? \_\_\_\_\_

\_\_\_\_\_

41. How do you keep the newborn warm immediately after birth?

\_\_\_\_\_

\_\_\_\_\_

42. Do you encourage skin-to-skin contact between mother and baby?

yes \_\_\_ no \_\_\_

if yes, when? \_\_\_\_\_ for how long? \_\_\_\_\_

43. Do you routinely use eye prophylaxis? yes \_\_\_ no \_\_\_

If yes, with tetracycline? yes \_\_\_ no \_\_\_ other medication? \_\_\_\_\_

44. Do you routinely give Vit. K? i.m.: yes \_\_\_ no \_\_\_ oral: yes \_\_\_ no \_\_\_

45. Do you routinely practice early initiation of breastfeeding? Yes \_\_\_ no \_\_\_

If yes, when? \_\_\_\_\_; for how long? \_\_\_\_\_

46. Do you give any supplementary feedings? Yes \_\_\_ no \_\_\_

If yes, what do you give? \_\_\_\_\_

If yes, when do you give it? \_\_\_\_\_

47. What is the average length of stay after normal delivery?

\_\_\_\_\_

after CS? \_\_\_\_\_

48. Do you give any instruction in breastfeeding after birth? Yes \_\_\_ no \_\_\_

If yes, specify what: \_\_\_\_\_

49. Do you give any advice to the mother after delivery?

If yes, specify what? \_\_\_\_\_

50. Do you give any contraceptive information after delivery?

yes \_\_\_ no \_\_\_ if yes, what? \_\_\_\_\_

51. How does the emergency situation affect the work in the maternity facilities?  
(describe- staffing, access of women, caseload, equipment and supplies, stress,  
length of stay, cost and reimbursement etc.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

52. Are the doctors satisfied with their work? Yes \_\_\_ no \_\_\_ Explain:

\_\_\_\_\_  
\_\_\_\_\_  
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**53. Are the midwives/nurses satisfied with their work? Yes \_\_\_ no \_\_\_ Explain:  
(turn-over etc.)**

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**54. What changes do you think might create greater satisfaction for the health providers?**

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**55. What changes do you think might create greater satisfaction for birthing women?**

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**56. Is there anything else that you would like to add?**

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