

Home Neonatal Care Practices in Rural Egypt during the First Week of Life

Mohamed H. Hussein, MD;

Gary L. Darmstadt, MD;

Peter J. Winch, MD;

Lamiaa Mohsen, MD;

Reginald Gipson, MD;

Ayman El Mohandes, MD;

Esmat Mansour, MD;

Mathuram Santosham, MD

Collaborating Institutions and Support

- Department of International Health,
Johns Hopkins Bloomberg School of
Public Health
- John Snow, Inc., Cairo, Egypt
- Department of Pediatrics, George
Washington University
- Funded by USAID, Healthy Mother
Healthy Child Results Package, grant
to John Snow, Inc.

Presented By

Dr. Lamiaa Mohsen

Professor of Pediatrics/Neonatology

Cairo University

Introduction

- Neonatal mortality accounts for approximately two-thirds of all infant deaths worldwide.

Introduction

- 40-70% of neonatal deaths worldwide and in Egypt occur during the first week of life, and, moreover, the majority occur at home (Black, 1999).

Introduction

- Proper routine care of the neonate.
- Recognition of danger signs.
- Care-seeking when illness is suspected.

*Are all vital particularly during the first week of life.

- No comprehensive data is available on such practices for Egyptian neonates.

Objectives

- 1.** Identify providers of care to neonates at home during the first week of life.
- 2.** Identify routine care practices in the home during the first week of life, including feeding practices, hygiene, thermal control, umbilical cord care, bathing and skin care, and recognition of danger signs.
- 3.** Determine harmful practices and areas of sub-standard care to neonates at home in the first week of life.

Material and Methods

- **Cross-sectional descriptive study.**
- **217 women were interviewed during the year 2000.**

Material and Methods

Selection of the study areas was based on:

- **Availability of trained community workers (ra'idat) who were assigned to households in their neighborhood.**
- **Presence of a recently delivered mother in a household.**

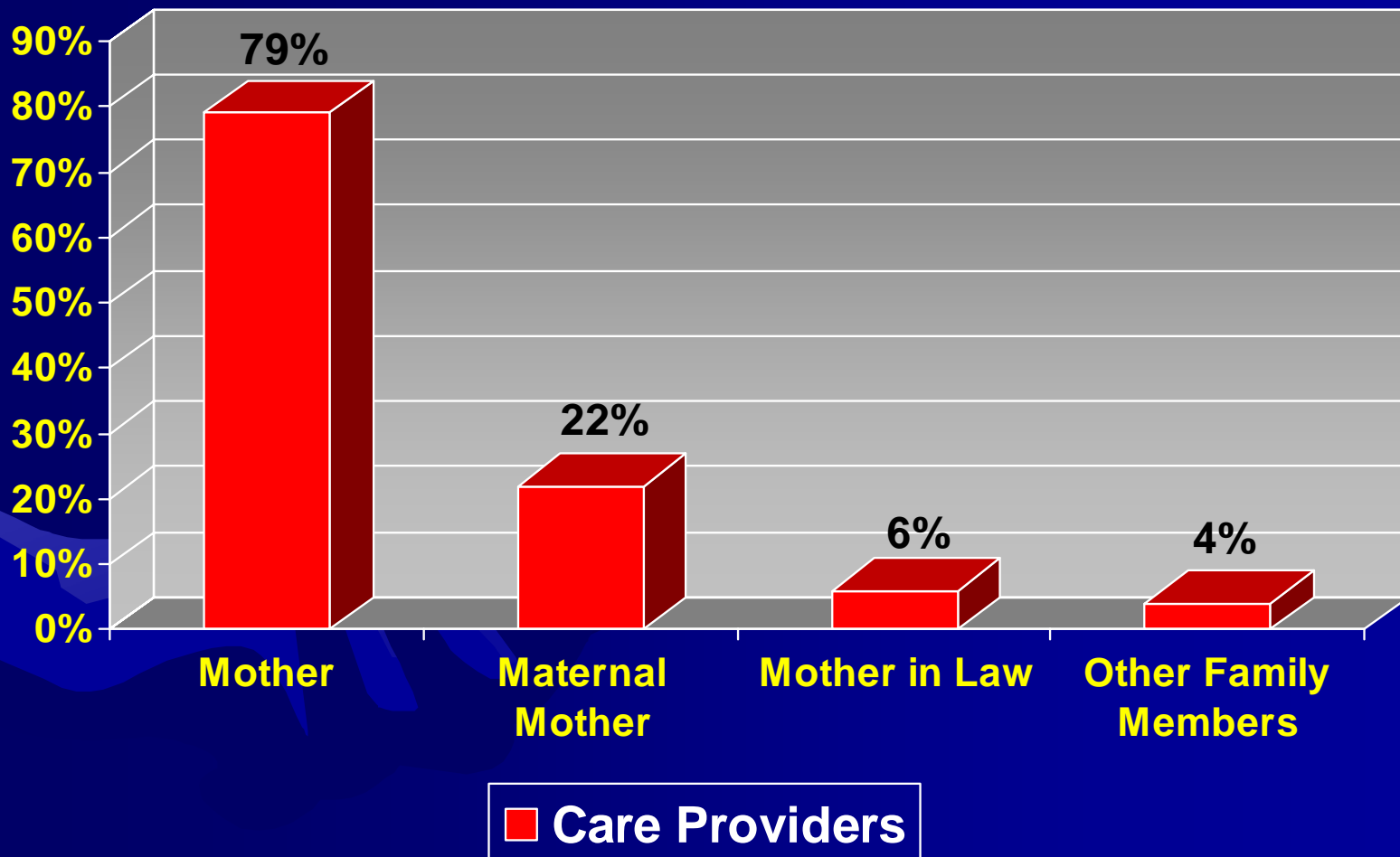
Study tools:

Interview was through a questionnaire that covered :

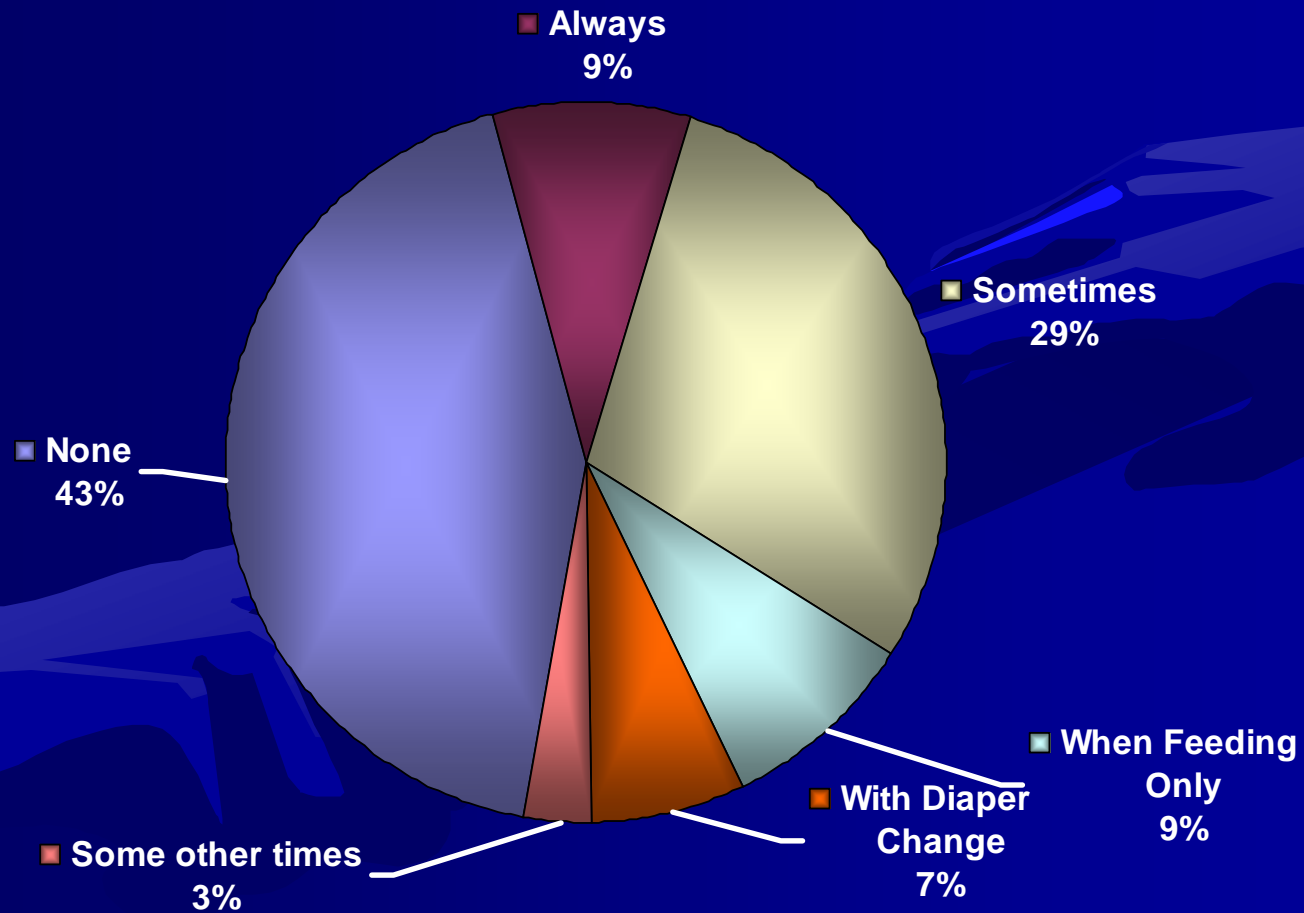
- Neonatal home care provided including the provider and type of care given.
- Neonatal care provided during the first seven days of life, including feeding practices, infection control practice, umbilical cord care, skin care and eye care.
- Ability of caregivers to recognize danger signs and illnesses.

RESULTS

Home Care Providers in Study Population



Hygienic Practices: Hand Washing



Feeding Practice

	Totals
When did the first breast suckling occur?	206
Immediately after birth	44.7
Hours after birth	37.4
Second day	7.8
Others	10.2

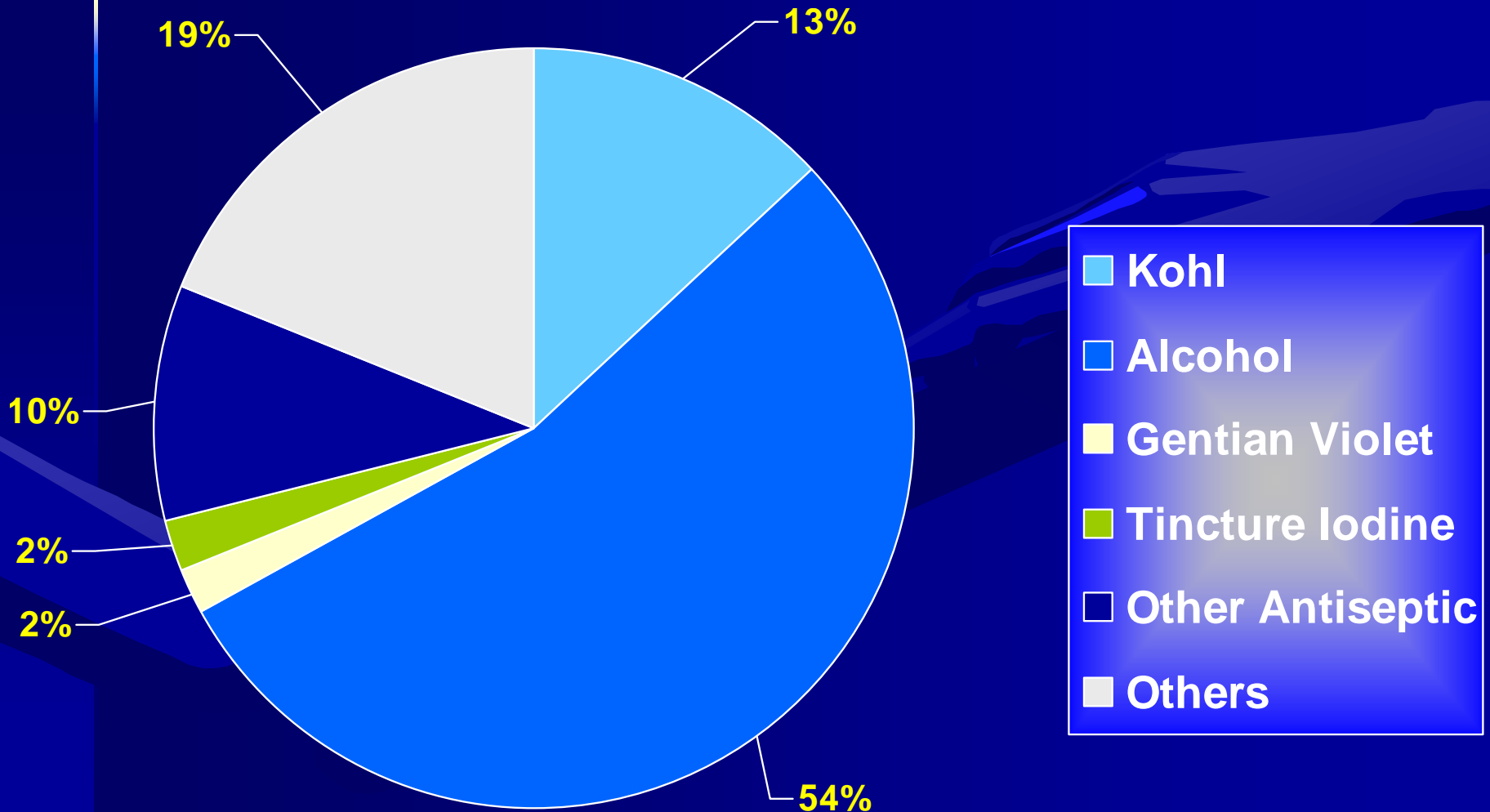
Feeding Practice

	Totals
What was given at the first feeding?	212
Breast milk	55.7
Sugar water	21.2
Anise & karawya	10.8
Formula	2.4
Others	9.9

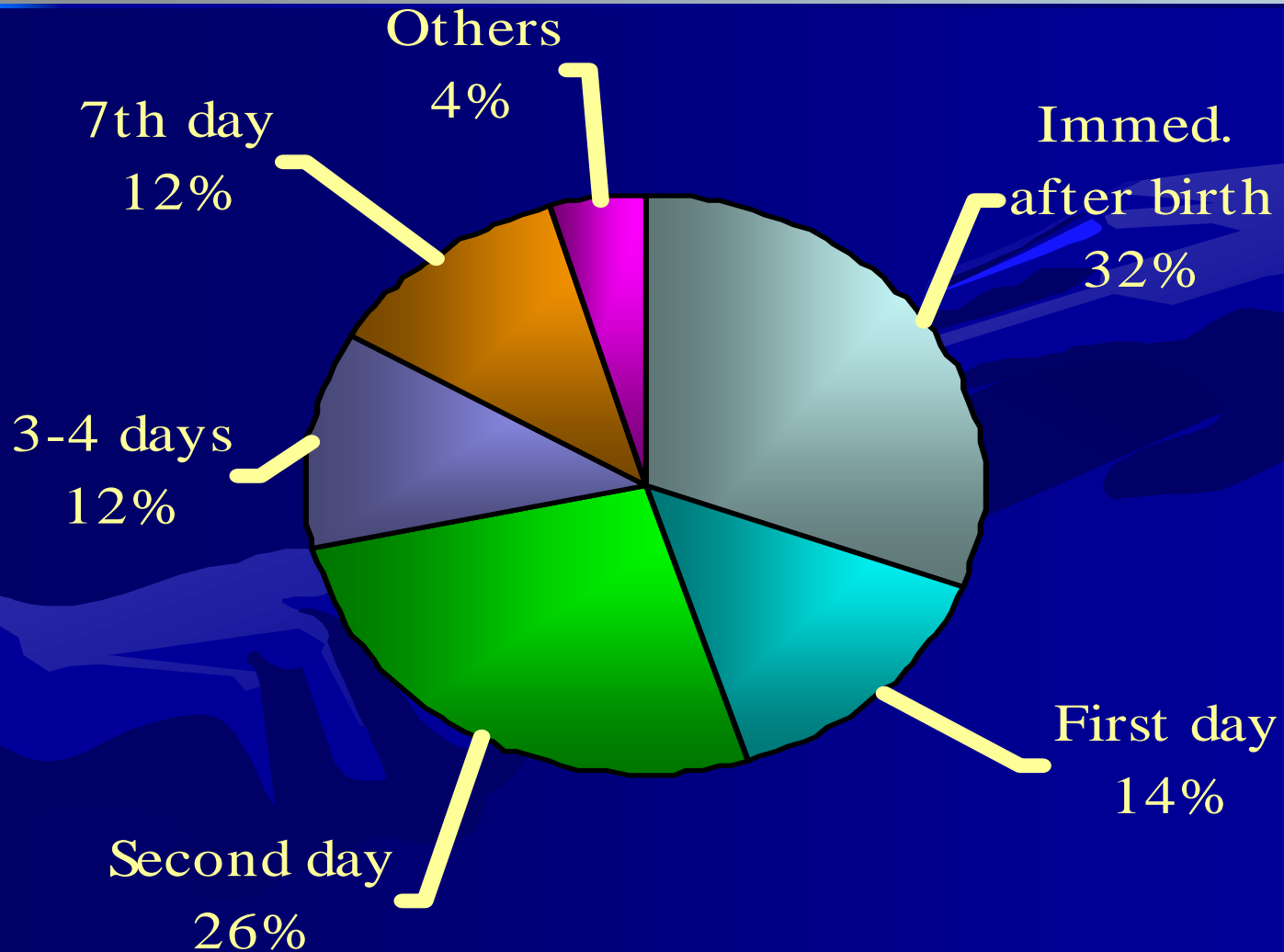
Feeding Practice

	Totals
Is the baby on breast milk now?	211
No	1.9
Exclusive breast milk	78.7
With others	19.4

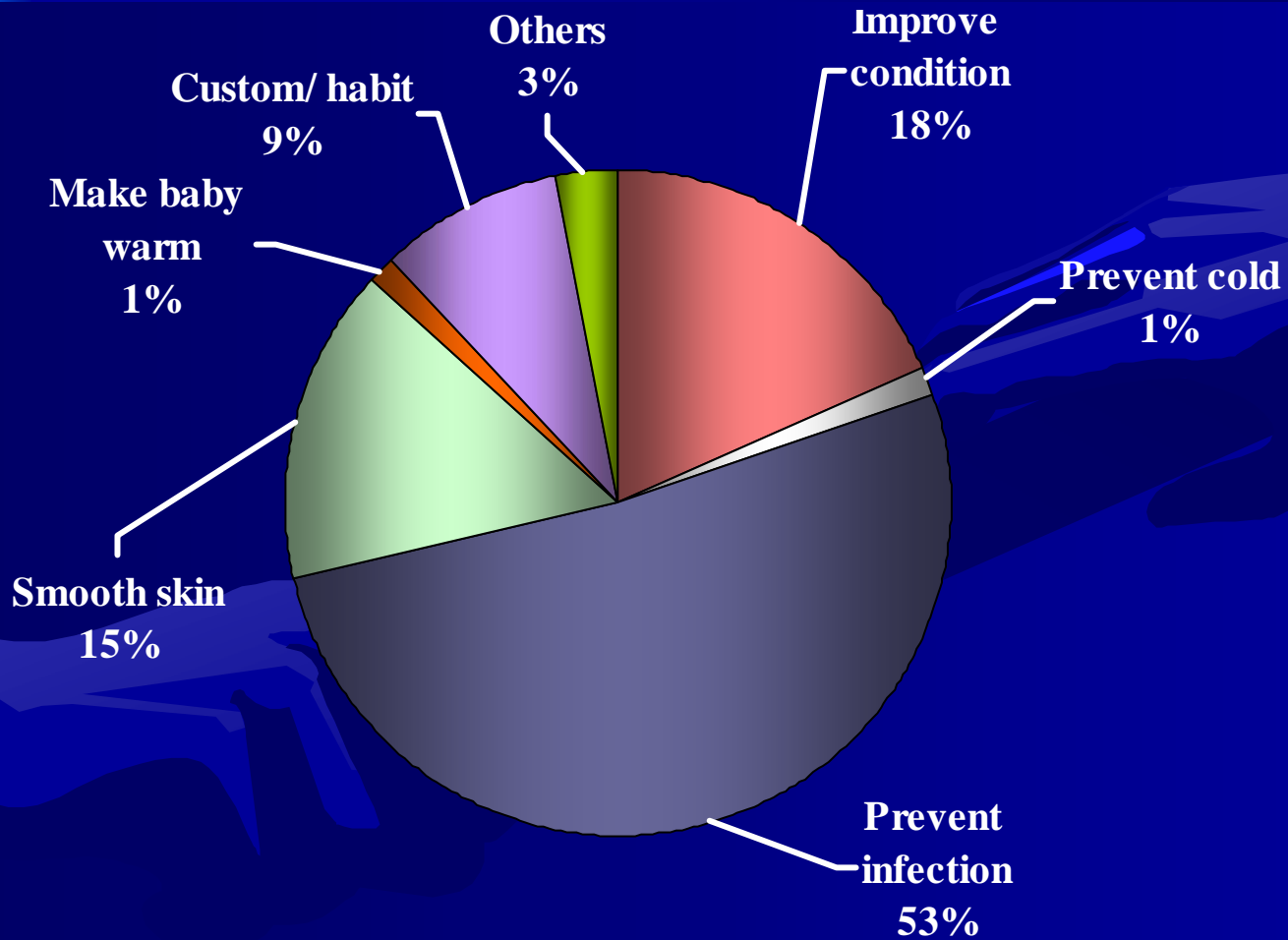
Umbilical Cord Care



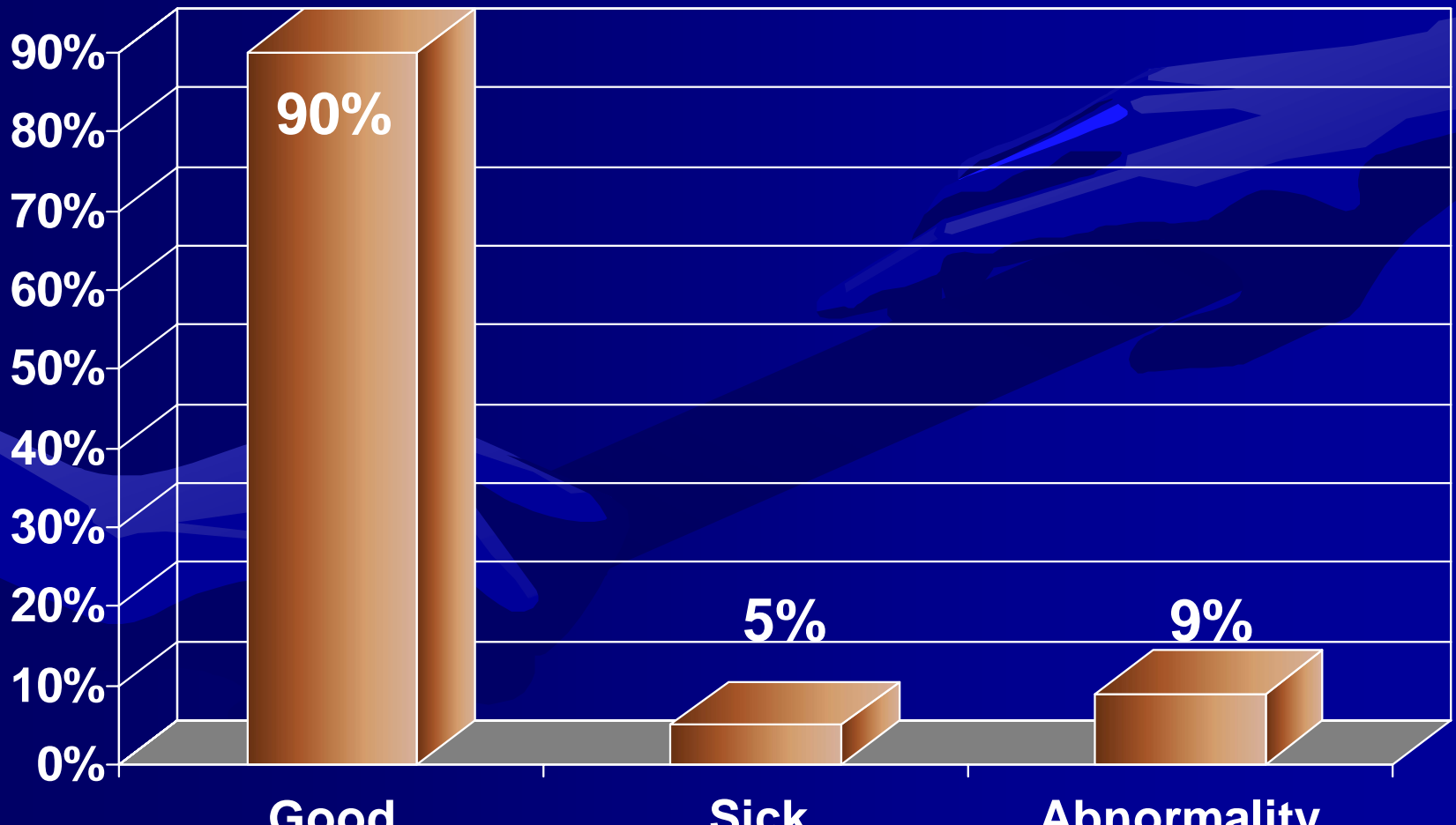
Bathing Practices



Skin Care



Mother's Assessment of Her Baby's Condition



Conditions Reported

Frequently

> 10%

- Vomiting
- Decreased Crying
- Difficult Breathing
- Oozing from Umbilicus

Less Frequently

> 5% and < 10%

- Low Body Temperature
- Diarrhea
- Eye Discharge and Redness
- Fever
- Skin Color Changes

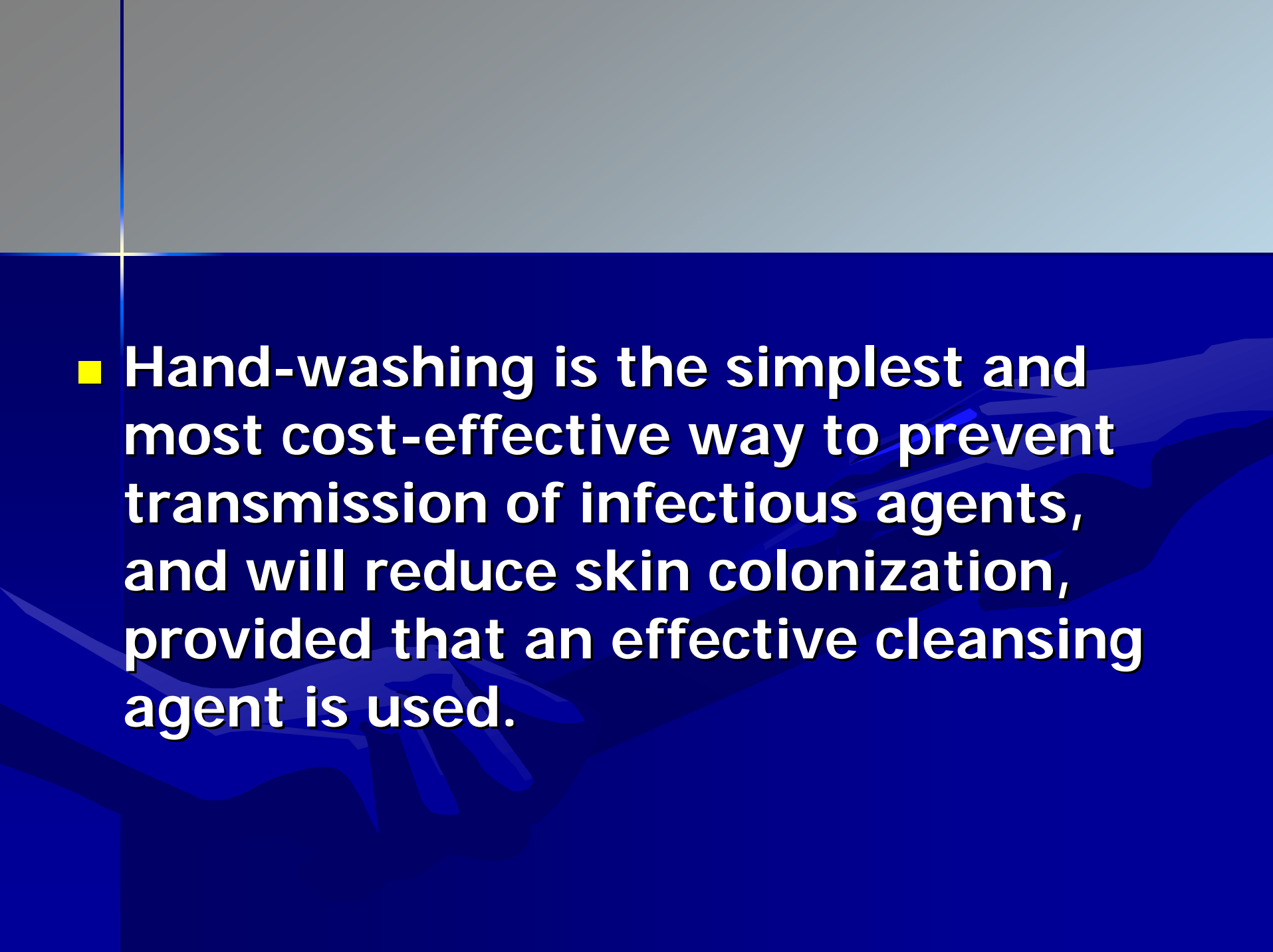
DISCUSSION

Care-providers

- Mother was clearly identified as the principal caregiver for most neonates in the home.
- The importance of the mother as the caregiver in neonatal outcome is crucial.
- Babies who survive the death of their mother seldom reach the first birthday (WHO, 1994).

Hand-Washing

- Lack of hand-washing was significant.
- Failure to wash the hands after diaper changes and before feeding the baby is a concern in the transmission of infectious agents.

- 
- The background of the slide features a close-up photograph of hands being washed with soap. The hands are covered in white, foamy suds, and the water is running over them. The lighting is bright, highlighting the texture of the soap and the skin. The overall color palette is dominated by the white of the suds and the natural tones of the skin, set against a slightly blurred background.
- **Hand-washing is the simplest and most cost-effective way to prevent transmission of infectious agents, and will reduce skin colonization, provided that an effective cleansing agent is used.**

- **The most rational, optimal approach to hand-washing in developed countries appears to be routine use of mild, non-antimicrobial skin-cleansing products for cleansing soiled hands.**

Feeding

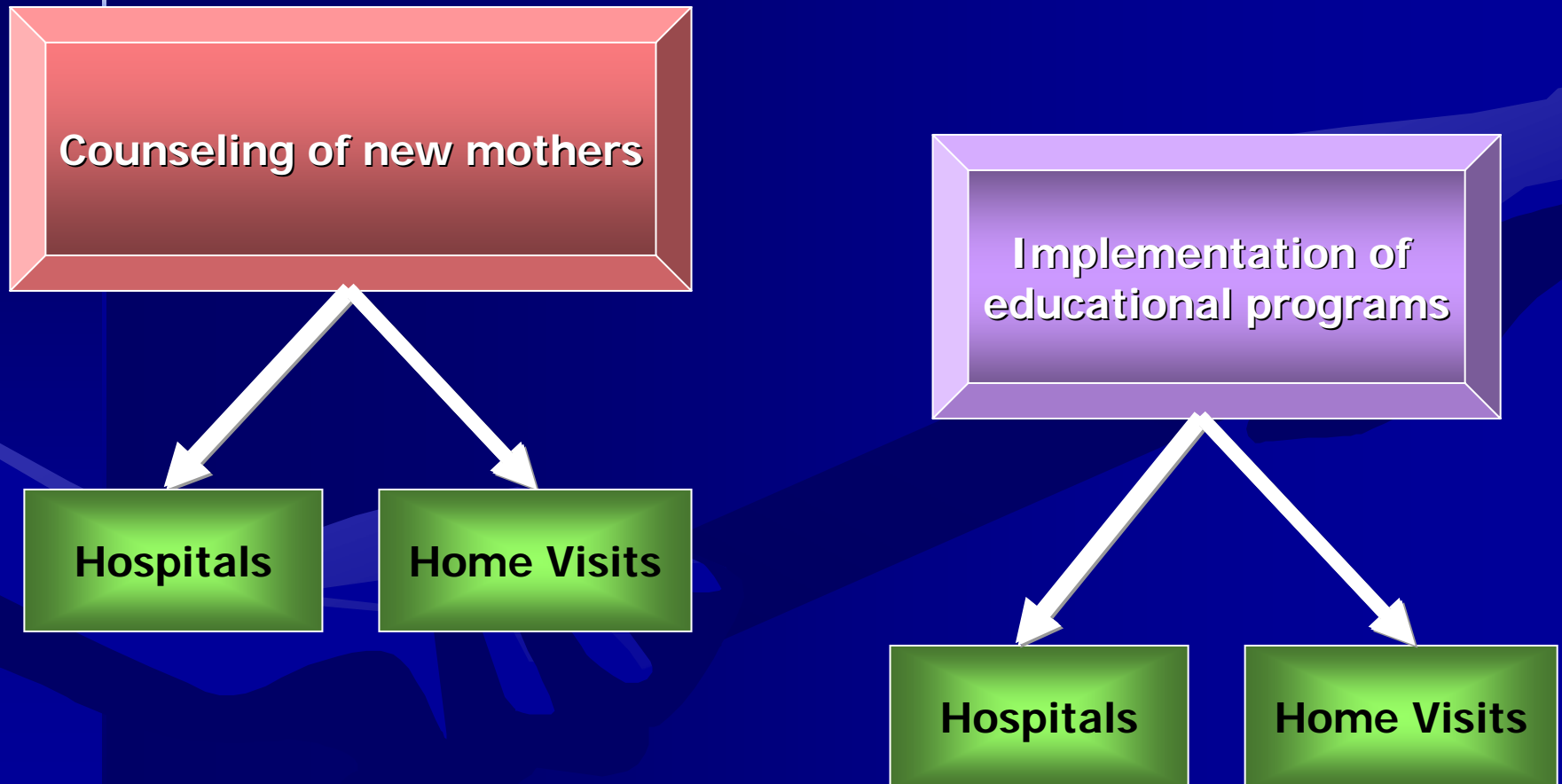
- The initial feeding was given within the first hour in approximately 80% of neonates.
- First feeding consisted of breast milk in only half of cases.
- Overall, less than half of neonates were breastfed within the first hour, as recommended by the World Health Organization.

- **Breast feeding was delayed beyond the first 24 hours of life in less than 20% of neonates, a remarkably low rate compared to many developing countries where more than half of neonates do not receive breast milk for more than 24 hours postpartum.**

- While nearly all neonates were fed Colostrum and were breast fed throughout the first week of life, the feeding of supplemental substances remained commonplace.
- The reported rate of exclusive breastfeeding among our study population (79%) was higher than that reported by the 1998 EDHS (67%) and 2005 EDHS (65.5%).

- **Breastfeeding is especially protective against late neonatal deaths due to infections such as sepsis, pneumonia, meningitis, omphalitis, and diarrhea.**
- **The protective effect is partially abolished by the addition of supplements.**

Improved rates of initiation and exclusive breastfeeding could be accomplished by:



Umbilical Cord Care

- An antiseptic, was used to cleanse the umbilical cord in only half of newborns. Most frequently alcohol.
- Use of chlorhexidine, was not reported.
- Of all products applied, 30% were other than an antiseptic. Kohl was applied to the umbilical stump of approximately one eighth of neonates.

- Alcohol alone may not provide complete protection as recurrent epidemics of streptococcal infection have been reported with its use.
- Nevertheless, this agent is felt to be the most cost effective and safe of the routinely available antiseptics, and is recommended for cord antisepsis by the Egyptian Ministry of Health and Population.



Bathing

- **Bathing practices appeared to be appropriate, since bathing newborns after birth is not a necessary practice and, if not performed properly, can cause more harm than good .**

Bathing

■ Bathing may lead to:

- Hypothermia.
- Increased crying.
- Increased oxygen consumption.
- Destabilization of vital signs.
- Changes in barriers properties of the skin.

Bathing Recommendations

■ Initial Bath:

- Shortly after birth.
- Without soap.

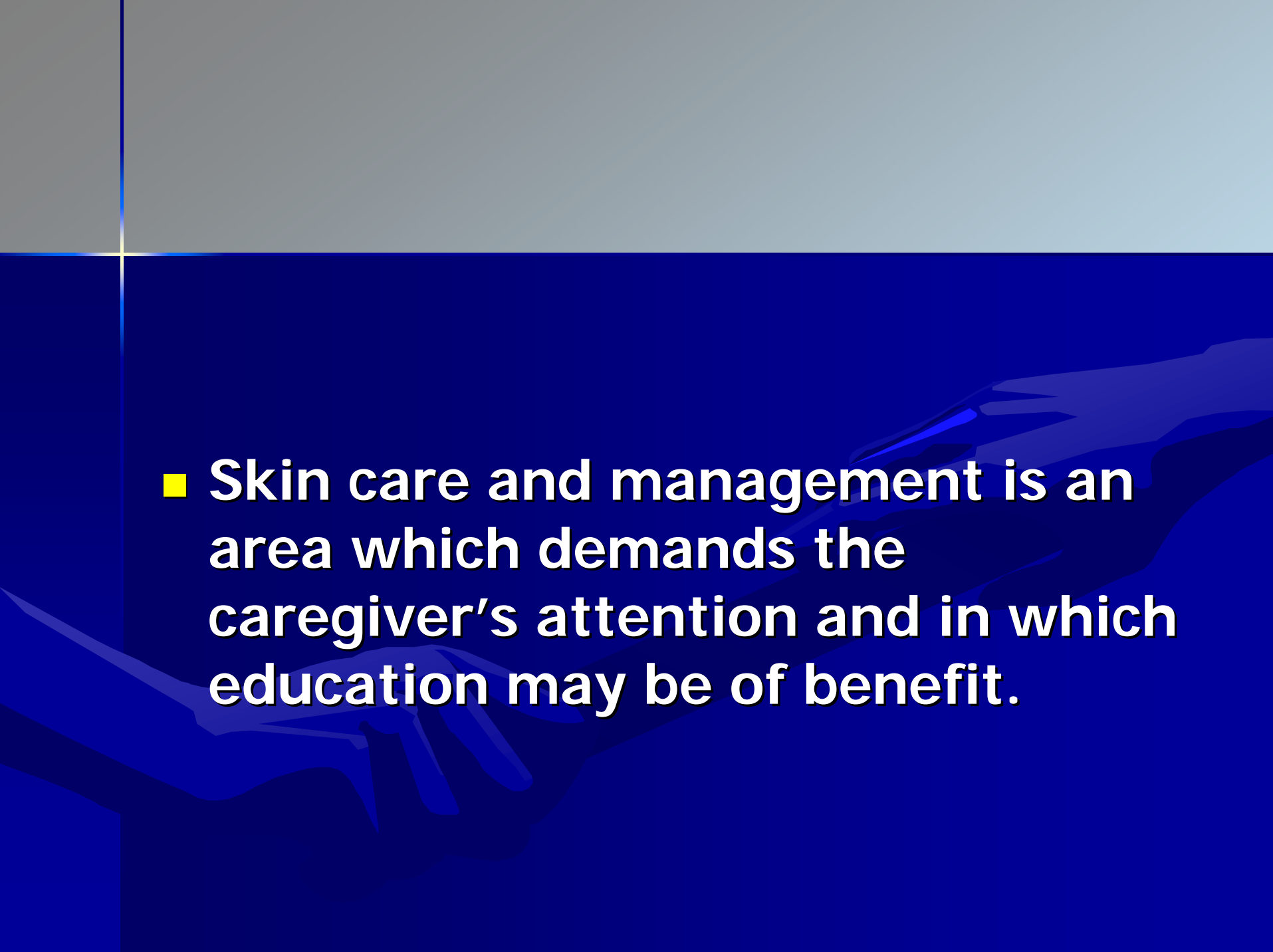
■ If excessive soiling:

- Mild, PH balanced
- Non fragrance containing soap.

Skin Care

- 69% were given applications to the skin with the aim of improving skin health and Preventing skin infections.
- The precise identity of many of these products, however, is unknown.

- **A more in-depth investigation of the products applied in Egyptian homes and their potential toxicities may be warranted, as most mothers expressed a willingness to apply a prescribed emollient to the skin.**

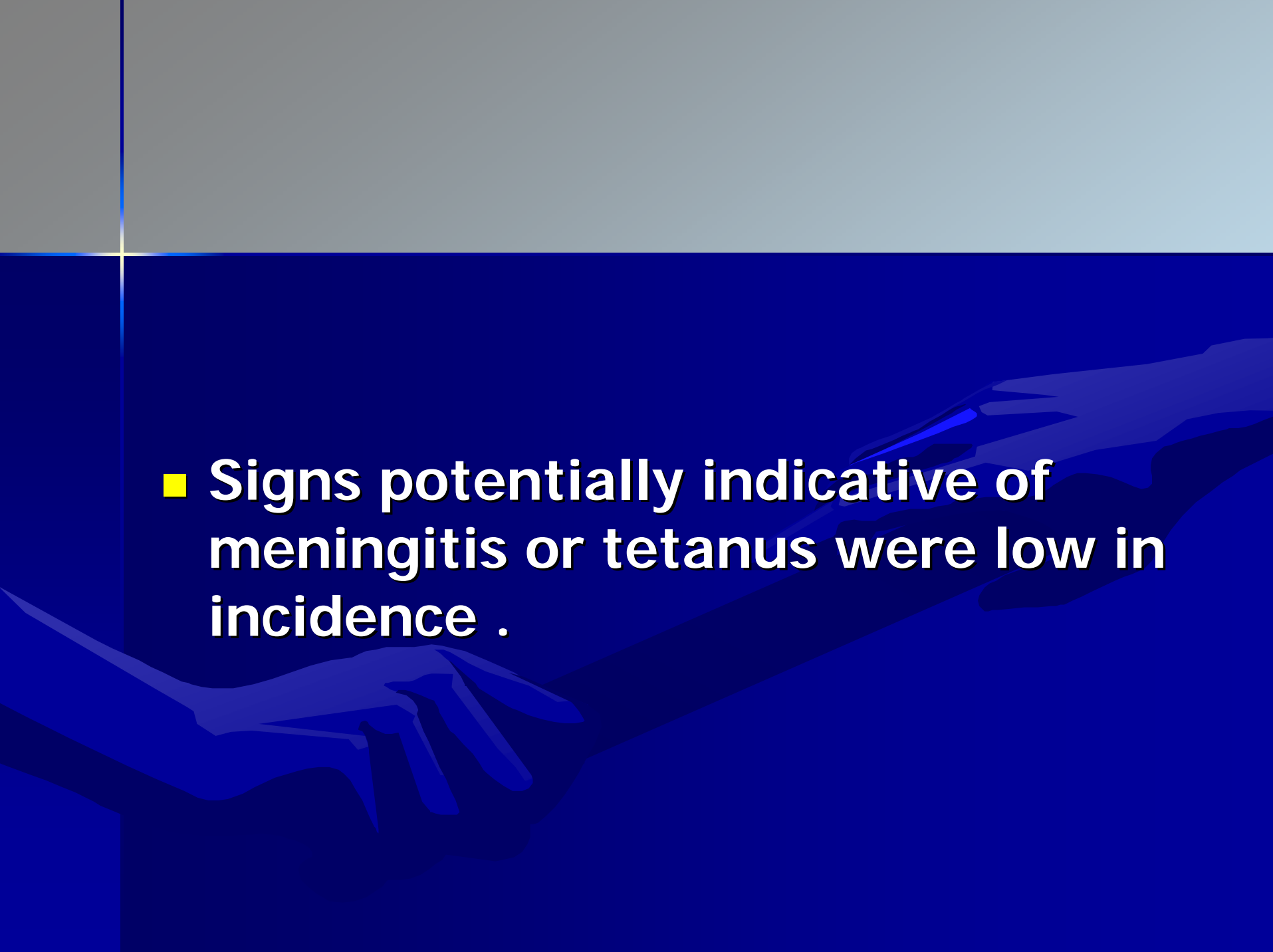
- 
- **Skin care and management is an area which demands the caregiver's attention and in which education may be of benefit.**

Recognition of Neonatal Danger Signs

- 5% of neonates were characterized by their mothers as becoming ill during the first week of life.

- **Gastrointestinal illness was relatively important, as vomiting, dehydration, and “abnormal urination” were reported by 10% or more of mothers, and diarrhea was reported by 9%.**

- Signs associated with septicemia and/or pneumonia as Fever or hypothermia, Decreased crying, Distended abdomen, Difficulty of breathing, Cough, Tachypnea, Umbilical tenderness or Redness, or low vitality.
- were described in approximately 4 to 10% of newborns.

- 
- The background of the slide features a dark blue gradient. In the lower half, there is a stylized illustration of two hands shaking, rendered in a lighter blue color. The hands are positioned as if in a firm grip, symbolizing agreement or partnership. The overall aesthetic is professional and clean.
- **Signs potentially indicative of meningitis or tetanus were low in incidence .**

- **The guidance about danger signs in the newborn that most mothers in the study areas reportedly received through the birth attendant was of benefit in enabling them to recognize a potentially ill neonate.**

- **Caregivers in the home can be taught to utilize simple signs to identify potentially ill neonates.**
- **Further studies to verify the accuracy of caregivers in Egyptian homes to correctly identify seriously ill neonates will be foundational.**

Conclusions

- Based on these findings, recommending training of home care providers, whether mothers or others, on proper neonatal care is needed.
- Health education during antenatal care visits and enforcement of timely postpartum home visits can be a venue for such an achievement.
- This would ultimately lead to improvements in routine neonatal care and in the outcome of Egyptian neonates.



Thank You