



Mother's chest is
the best place for
the newborn

Mother's milk is
the best food for
the newborn

PROMOTION OF
HOME BASED KANGAROO MOTHER CARE
IN RESOURCE RESTRICTED COMMUNITIES OF INDIA
AN URGENT NEED OF THE HOUR

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HOME BASED KANGAROO MOTHER CARE IN DEPRIVED COMMUNITIES OF RURAL/TRIBAL VILLAGES OF GUJARAT, INDIA

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PARTICIPATING VOLUNTARY SERVICE ORGANIZATIONS

- Tribhuvan Foundation, Anand –Rural Block
 - SEWA Rural , Zagadia-Rural/Tribal Block
 - Jashoda Narottam Public Health Trust, Dharampur-Rural/Tribal Block
 - Bhansali Trust, ICDS Sami Block-Rural Block
 - Gram Arogya Trust, Kharel-Rural/Tribal Block
-
- **Serve very deprived section of population.**
 - **Enjoy good credibility and provide basic MCH services.**
 - **Advanced facilities of Newborn care not easily reachable, inadequate and unaffordable to majority.**

NEWBORN CARE CHALLENGES OF INDIA

India's share of estimated annual global burden:

- The highest number of births (>27 millions)-20%
- The highest number of neonatal deaths (>.76million)-27%
- The highest number of LBWI (7.5 million)->40%
- The highest number of preterm-25%
- The highest number of still births-40%
- The highest number of maternal deaths- 25%
- Wide diversities in terms of urban-rural, poor-rich, gender , regional and other factors.

BACKGROUND AND JUSTIFICATION OF THE STUDY

- India has the most difficult challenges for newborn health care.
- FBNC not yet reached all needy newborns.
- Simple interventions like BF and KMC have great potential for saving many more newborns.
- Most studies of KMC are hospital based.
- Reluctance to study HBKMC because of safety, ethical and socio cultural concerns and other challenges.
- Community based health care workers with proper training, motivation, guidance and support can help achieve many milestones in newborn health care in developing countries.

Households:
Where we are
working



From roads to hill trails to reach out families in the hills and valleys





OBJECTIVES OF STUDY OF HBKMC

- **In households of deprived sections of the community**
- Is it safe for the low birth weight babies ?
- Is it feasible and acceptable to mothers and families?
- What problems are faced by the newborns?
- What problems are faced by mothers?
- What benefits do newborns get?
- What benefits do mothers get?
- Till the ideal facility based care is available to all the needy newborns, should we continue to promote the practice of HBKMC ?

METHODOLOGY

- Prospective, observational, ongoing study.
- Study population : Deprived sections in rural/tribal villages served by voluntary service organizations working through public health system with a few additional inputs in training and manpower .
- CHWs with additional training in HBKMC along with other components of ENBC offered KMC to eligible LBWI as early as possible after birth and followed up through regular home visit schedule till 8weeks after birth.
- (CHWs in India- ASHA, AWW, ANM, Link worker and others)
- Data collected in pre structured, pre tested forms in local language and analyzed.

ELIGIBILITY CRITERIA FOR NEWBORNS FOR HBKMC

All the Newborns from the selected villages and small hamlets
(Irrespective of the place of birth)

- Less than 2500 grams of birth weight*
- Stable with good respirations, good color and no danger signals suspected
- No life threatening obvious congenital anomalies
- Mother cooperative
- Family willing to allow mother for KMC and even support her for giving KMC

BACKGROUND INFORMATION

- Preparatory phase: 4 months Study period Total 8 months
- Data presented for study period of 8 months
(1st May'14 till 30th April'15)
- Total number of villages : 146
- Total population covered: 208,633
- Total number of deliveries: 2030
- Home deliveries : Average 22%
- Hospital deliveries : (Govt., Pvt. And Trust hospitals) 78%
- Incidence of LBWI : Average 23%
- HBKMC given to about 40% of total LBWI

કાંગારૂ પદ્ધતિથી નવજાત શિશુની સંભાળ



ડો શશી વાણી
ડો નિખિલ ખારોડ
પ્રમુખસ્વામી મેડિકલ કોલેજ
કરમસદ







**KMC Homebased Mother Care
in Remote Rural Area**

**A tender loving hug
(body embrace)**

**Rather than
mere skin to skin touch**



The available scales are not accurate for weighing the low birth weight infants





Meeting with
women's
group...



Helping the mother for KMC....

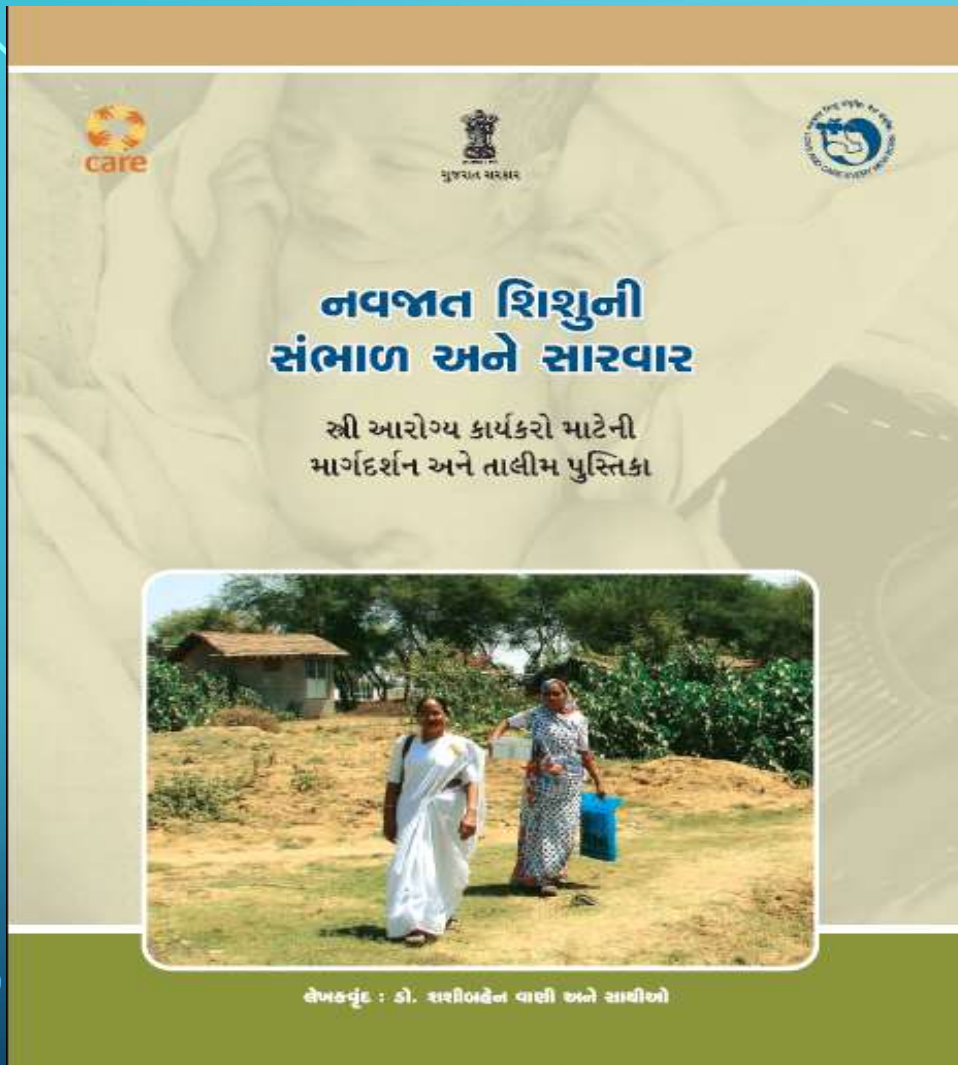
SEWA RURAL, JHAGADIA





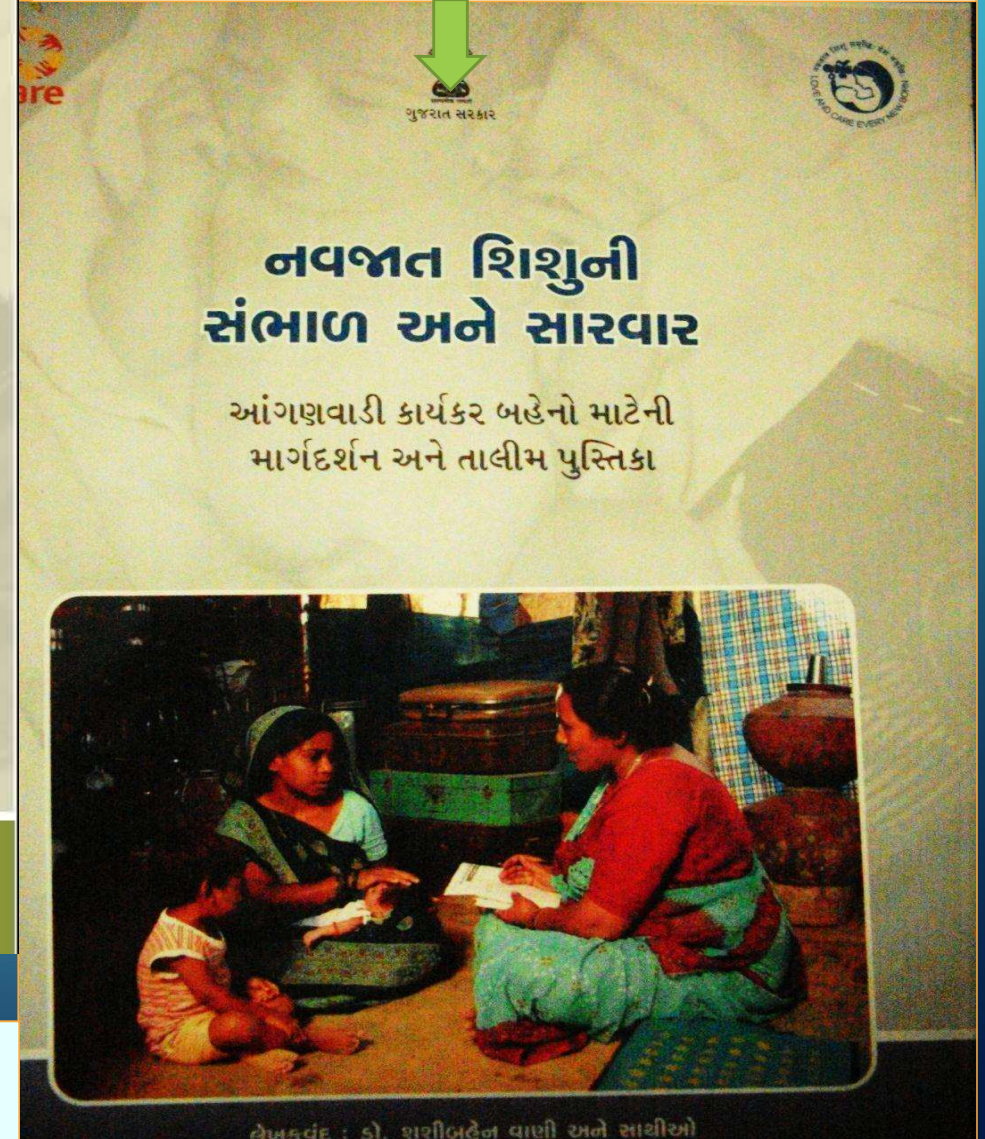


ENBC module for AWWs



INTKMCCON 2012

ENBC module for FHWs





KANGAROO MOTHER CARE

includes

- “Kangaroo Position” - Direct Skin to Skin Contact
- “Kangaroo Nutrition” - Exclusive Breast Milk Feeding
- “Kangaroo Discharge” - Regular Neurodevelopmental Follow up

**Direct Skin to Skin Contact for All Newborns
Specially for Preterm and Low Birth Weight Infants**



**Mother's chest – best place for baby care
Mother's milk – best food for baby's growth**

Tiny Baby on KMC

- | | |
|----------------------------|----------------------------|
| Warm and Calm | Better Breast Feeding |
| Better Weight Gain | Less Infections |
| Better Bonding and Love | Feels Safe and Stress Free |
| Better Brain Growth | Plus many more benefits |
| Better Quality of Survival | |

Please make sure..... Every mother and baby are together as much as possible

Home Based Kangaroo Mother Care

in resource restricted areas



A module for training the Community based health care workers in India



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India

OBSERVATIONS

- The data for the current study

From 1st May 2014 to 30th April 2015

Total Mothers 97

Total LBWI 102 (Includes five sets of Twins)

- (Newborns with birth weight less than 2500 grams)
- (In community reports from the resource limited, remote and difficult regions, the earliest weight taken after birth within first seven days is considered the birth weight of the newborn)(The day on which it is recorded must be mentioned.)

CATEGORIES OF NEWBORNS UNDER HBKMC

* I) Home delivered and continued to be home cared 23

• II) Hospital delivered but further care continued at home 74

• III) Hospital delivered, KMC started at hospital and after planned early discharge, continued at home 05

MATERNAL FACTORS

- **Age of mothers in years:**

<18 -----	02
>18 to 20 --	30
>20 to 25---	48
> 25-----	17

- **Educational Status:**

- | | | |
|------------------------------|------|----|
| Illiterate | ---- | 39 |
| Primary education | ---- | 32 |
| Secondary education | ---- | 21 |
| College and Higher studies-- | | 05 |

- **Joint families--** ----- 77

- **Nuclear families** ----- 20



OBSERVATIONS

Deliveries conducted by

• Untrained traditional birth attendants	14
• Trained birth attendants	15
• Auxiliary Nurse Midwife / Nurse	20
• Doctors	47
• Others	01

NEONATAL FACTORS

Birth weight *

- 1000 grams and below 03
- >1000 to 1500 grams 14
- >1500 to 2000 grams 38
- >2000 to 2499 grams 40
- Not recorded in first week 07

- **In all 55 Neonates with birth weight < 2000 grams**

- **Total Of 102 Neonates with birth weight < 2500 grams**

- **(* Birth weights included earliest weight recorded within one week after birth, with the available accuracy of scales)**

OBSERVATIONS ON NEONATAL WEIGHT

Time of recording the first weight after birth:

- Within first 24 hours 76
- > 24 hours till 72 hours 14
- >3 days till 7 days 05
- After first week 07

Maturity Assessment*

- Preterm 36
- IUGR (FT/LBW) 66

(Roughly assessed from LMP, EDD, birth weight and comparison of sole creases, ear cartilage and genitalia as marked on photographic charts)

OBSERVATIONS ON KMC

Initiation of KMC after birth:

- Within one hour: 06
- Within 24hours : another 13
- > 24 hours till 72 hours 20
- > 3 days till 7 days 15
- **> 7 days 36**
- Not recorded 12

Average duration of KMC in 24 hours

- **Less than 3 hours 48**
- 4to 6 hours 26
- More than 6 hours 16
- Not recorded 12

PROBLEMS IN NEWBORN BABIES

Morbidities in Babies during KMC

* Umbilical discharge (watery)	04
• Cough	04
• Fever	01
• Difficulty in breathing	03
• Poor feeding	09
• Excessive crying	02
• Skin Infection	02

(All noticed in the early days of KMC and improved without any antibiotics)

MORTALITY

One case died on 27th day after KMC
Suspected massive aspiration following feeds

Another case died on 23rd day after KMC
Most probable cause: Septicemia

Detailed verbal autopsy did not provide any direct causal relation to KMC practice. However need to note with caution.

One baby was referred on 15th day after KMC for suspected CHD

WHO ADVISED KMC?

In home delivered cases: (Total) 21

- Community health workers 19

(AWW/ASHA/Link worker from VHO)

- Doctor 01
- Self 01

In hospital delivered cases: (Total) 81

- Community Health Workers: 72
- Doctors 07
- Not recorded 02

TRAINING FOR GIVING KMC

- **Mothers given proper training and instructions:**

- * Yes 79 cases

- * Not recorded 18 cases

- **Family Members trained to help for KMC**

- Yes 73 cases

- Not recorded 24cases

(Special emphasis was for KMC position, technique of breast feeding including expressed breast milk collection and feeding ,hand washing, detection of early signs of danger and immediate reporting/ referral)

BENEFITS TO THE NEWBORN (AS REPORTED BY MOTHERS AND FAMILY MEMBERS)

- Good health 14
- Feeding well 31
- Child is alert and quiet 44
- Fast improvement 24
- Good weight gain 33
- ? Less chances of infection 15

PROBLEMS IN MOTHERS

- **Personal**
- Back pain 20
- Stitch pain 05
- Mood changes and anger 01
- Boredom during KMC 07
- Difficulty holding tiny baby 07

Other problems mentioned in discussion

- No domestic help
- No privacy/proper place at home
- No support from family members for surrogate KMC
- Hot and humid weather , excessive perspiration
- Did not like baby soiling with excreta



BENEFITS TO MOTHERS

- Easy to feed the baby 45
- Getting more breast milk 39
- ?Satisfaction 42
- Mentally peaceful 39



CAN YOU BELIEVE?

- Through HBKMC
- A newborn with birth weight of 600 grams has been saved and to day thriving well with the weight of 3800 grams after 72 days.
- * A newborn with 920 grams birth weight doing well after KMC
- A set of twins with birth weight of 1600 and 1700 grams are thriving well.

(We brought several such babies to 9th International conference of KMC at Ahmedabad and at International KMC awareness day 2016 and many programs)

- **When no other alternatives are available, HBKMC is worth trying.**





SUPPORTIVE EVIDENCES FROM OTHER STUDIES AND EXPERIENCES FROM INDIA

- Indian Council of Medical Research study on Feasibility and acceptability of HBKMC in deprived sections of society in India- A multi centric study
(Gujarat, Maharashtra and Odisha)2014-15
- A study of HBKMC in Urban slums of Ahmedabad by PSM dept. of NHL Municipal Medical College, India2012
- Experiences of VHOs like Rajiv Gandhi Mahila Swasthya Parivartan Pariyojana UP(2014-16)
- Sewa Rural Zagadia(2005 onwards), TF(2006 onwards) and others.

CONCLUSIONS

- Under the guidance and supervision through regular multiple home visits of community health workers with additional training for HB KMC*, **it is safe to introduce HBKMC** along with FBKMC for the care of LBWI in deprived sections of the society till the ideal conditions are available to all the needy newborns.
- *(as part of ENBC including breast feeding, infection prevention measures, identification of early signals of danger and referral, communication skills and other simple interventions)
- Anecdotes do indicate ELBWI are also surviving even in these situations
- Large scale studies are required in different population groups to support these conclusions.

ADDITIONAL SUGGESTIONS

- For the better monitoring of LBWI at community level, it is desired to have better portable, easily readable weighing scales with accurate weighing of minimum of 10 grams.
- Supply of KMC bags combined with training will be useful
- Use of mobile technology for prompt timely health care interventions
- The good work of CHW should be suitably appreciated, encouraged and rewarded in community functions.
- Frequent guidance and supervision must be provided to CHWs through higher level functionaries.
- Community participation encouraged through focused group discussions from time to time and other methods.



Thank You