

## Supplement 2

**Table S1: Items assessing providers on nurturing care elements (provider survey)**

<b>A</b>	<b>Minimizing stress and pain</b>
<b>#</b>	<b>Recognize pain and stress in a baby</b> - How do you tell that a baby is stressed or in pain (interviewer do not prompt, tick all that applies)
1	Sad
2	Limp and weak
3	Needle and tubes put on
4	Intravenous feeding or tube insertion
5	Jerky and restless
6	Bruises/cuts/ incisions
7	Can't cry
	<b>Overall score for child stress (0-7) (SD)</b>
	<b>How would you minimize pain in sick/young infant</b>
1	Use oral of paracetamol
2	Use glucose/sucrose in premature babies
3	Use of opioids e.g., morphine
4	Use of local anesthetics (topical application or injection)
5	Breastfeeding
6	Distraction e.g., music, playing with the child, showing bright colors
7	Applying heat or ice (warm/cold compress) on injection site /bruise
8	Gentle massage
9	Other specify
	<b>Overall score for child stress (0-9) (SD)</b>
	<b>How can you tell that the parents are stressed by the baby's illness?</b>
1	Cannot feed the baby
2	Cannot provide care to baby
3	Looks disinterested in baby
4	Exhibits restlessness /confusion/ agitation
5	Looks agitated
	<b>Overall score for parental stress (0-5) (SD)</b>
	<b>What environmental factors (what they see and hear) overwhelm parents in wards/facility?</b>
1	Noise from respirators
2	Sudden alarms/noise
3	Sight of monitors
4	Seeing many sick babies
5	Seeing many providers
	<b>Overall environmental stress (0-5) (SD)</b>
<b>B</b>	<b>Optimizing nutrition (0-28 days)</b>
	<b>How would you support a child up to 28 days to ensure adequate feeds and good feeding practices?</b>
1	Facilitate early and frequent exclusive breastfeeding
2	Encourage prolonged skin to skin contact
3	Promote positive oral/olfactory (smell) stimulation by letting the baby lick and smell the nipple
4	Ensure mother is competent with exclusive breast feeding before discharge
5	Counsel mothers on correct breastfeeding position

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6	Provide space and chairs to ensure mothers comfort during breastfeeding
7	Encourage frequent breast feeding
8	Hold/ensure babies with NGT are well positioned
9	Support and encourage mothers to express milk for baby with NGT feeding
10	Ensure balanced diet for breastfeeding mothers
11	Ensure adequate feeding time for mother/baby at NBU
12	Use appropriate size NGT feeding
13	Coach and support mother on NGT feeding
14	Encourage a mother to have enough rest
	<b>Overall score optimism nutrition (0-14) (0-28 days)</b>
<b>C</b>	<b>Safeguarding sleep</b>
	<b>How would you support a newborn up to 28 days to safeguard sleep?</b>
1	Encourage prolonged skin-skin contact
2	Ensure and coach parent on nestled position for good sleep
3	Recognize and protect baby sleeping patterns
4	Provide flexible timing for care/procedures
5	Avoid interruptions/bright light
6	Arouse child using soft and gentle voice
7	Ensure adequate warm and right clothing
8	Encourage parents to observe child's sleep pattern and develop and sleeping routine
9	Coach, educate and mentor parents on the importance of sleep and rational for back -to -sleep and tummy- time
10	Protect baby's eyes from direct lighting
11	Avoid rough handling, noise or over stimulating the child
12	Ensure adequate feeds
	<b>Overall scores for safeguarding sleep (0-12) (SD) (0-28 days)</b>
	<b>How would you support a child between 29 days to 2 years to safeguard sleep?</b>
1	Ensure and coach parent on nestled position for good sleep
2	Recognize and protect baby/young child sleeping patterns
3	Provide flexible timing for care/procedures
4	Avoid interruptions/bright light
5	Arouse child using soft and gentle voice
6	Ensure adequate warm and right clothing
7	Encourage parents to observe child's sleep pattern and develop and sleeping routine
8	Coach, mentor parents on the importance of sleep and rational for back -to -sleep and different positioning
9	Protect baby's eyes from direct lighting
10	Avoid rough handling, noise or over stimulating the child
11	Ensure adequate feeds
	<b>Overall scores Safeguarding sleep (0-11) (SD) (29-2 yrs)</b>
<b>D</b>	<b>Positioning and handling</b>
	<b>How would you support correct positioning and handling for a newborn up to 28 days?</b>
1	Ensure skin- skin contact – where possible
2	Reposition child with care and minimally every four hours
3	Engage with child and let the behavior guide you (care for the infant and not to the infant)
4	Encourage, coach and mentor the parents on touching and cuddling the newborn
5	Encourage, coach and mentor the parents on developmentally appropriate stimulation and play as they mature
6	Collect/assemble all required items first

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7	Involve the parent in procedures
8	Communication with child
	<b>Overall scores for positioning and handling (0-8) (SD)</b>
	<b>How would you support correct positioning and handling for a child between 29 days to 2 years?</b>
1	Ensure skin- skin contact – where possible
2	Reposition child with care and minimally every four hours
3	Engage with child and let the behavior guide you (care for the infant and not to the infant)
4	Encourage, coach and mentor the parents on touching and cuddling the newborn
5	Encourage, coach and mentor the parents on developmentally appropriate stimulation and play as they mature
6	Collect/assemble all required items first
7	Involve the parent in procedures
8	Communication with child
	<b>Overall scores for positioning and handling (0-8) (SD)</b>
<b>E</b>	<b>Protecting skin (0-28 days)</b>
	<b>How would you support protecting skin for a newborn?</b>
1	Drying and wrapping newborn immediately after birth
2	Early, frequent, and prolonged skin to skin contact
3	Keep the room/areas of care warm and humid (e.g. NBU, labor ward, Postal ward, Pediatric ward and OPD)
4	Ensure NBU is clean during mothers feeding time
5	Use only water for bathing the child
6	Avoid harsh soap, lotions and detergent for bathing and washing the baby/cloths
7	Frequent nappy change
8	Wrapping and clothing the baby (not too warm)
9	Minimize adhesives use and pricking to find IV site
10	Teach the mother on how to provide developmentally appropriate infant massage to promote relaxation, bonding, and attachment
	<b>Overall scores for protecting skin (0-10) (SD) (0-28 days)</b>
	<b>How would you support protecting skin for a day 29-2 years?</b>
1	Frequent prolonged skin to skin contact as necessary
2	Keep the room/areas of care warm and humid (e.g. NBU, labor ward, Postal ward, Pediatric ward and OPD)
3	Avoid harsh soap, lotions and detergent for bathing and washing the baby/cloths
4	Frequent nappy change
5	Wrapping and clothing the baby (not too warm)
6	Minimize adhesives use and pricking to find IV site
7	Teach the mother on how to provide developmentally appropriate infant massage to promote relaxation, bonding, and attachment
	<b>Overall scores for protecting skin (0-7) (SD) (29 days-2 years)</b>

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**Table S2: Items assessing parents experience of the interventions (parents' follow-up survey)**

#	Did you receive information on?
1	Exclusively breastfeed your newborn/infant or feed your young child
2	Keep your baby warm
3	Change diapers
4	Maintain personal hygiene
5	Bathe and keep your baby clean
6	Gently touching or soothing the baby
7	Talking to your baby/child
8	Allow pricking by providers when necessary
9	How to insert an NG tube (at hospital)
10	Nest (wrap/position) the baby
11	Skin to skin in the facility and at home
12	Maintaining a quiet environment when baby/child is sleeping
13	Mother baby breastfeeding positions
14	Changing a baby's position (not laying or sitting in one position for too long)
15	Stimulate/play with your baby/young child
	<b>Average score for information given (0-15)</b>

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**Table S3: Items assessing quality of interpersonal communication (parent’s follow-up survey)**

#	During hospital stay ...
1	Did the provider greet you in a friendly way?
2	Did the provider introduce her/himself?
3	Did the provider explain any care that was required for your newborn/young child?
4	Did the provider explain why tests were being carried out on your baby?
5	Did the provider demonstrate and give examples while communicating?
6	Did the provider give you a chance to ask questions?
7	Did you ask any questions?
8	Did you feel confident to ask questions about any aspect of your childcare?
9	Did the provider answer your questions clearly using simple (non-medical) language?
10	Did the provider explain to you all the, examinations/ procedures/ cares tasks that s/he or you performed for your baby?
11	Did the provider use a language you understand (local language)?
12	Did the provider speak gently to you and spouse/family?
13	Did providers listen carefully when you were talking/ raising concerns about your childcare
14	Did providers use non-verbal gestures to show you they cared? E.g. smile, eye contact, nodding,
15	Did the provider clearly explain to you about follow up instructions for your baby’s care? <i>By this I mean drugs, care task to be taken at home including the return date</i>
16	Did the provider tell you what to do in case you need to reach out to him/her for any concerns on care of your child?
	<b>Average score for information given (0-16)</b>

**Table S4: Items assessing parent’s empowerment to care for their child**

Section 4- Parent empowerment			
401.	I feel in control of my newborn/young child’s health.	Strongly disagree.....1 Disagree.....2 Agree.....3 Strongly Agree.....4	
402.	I know what to do when my newborn/young child has a health problem.	Strongly disagree.....1 Disagree.....2 Agree.....3 Strongly Agree.....4	
403.	I will be responsive to and care for my newborn/young child at home.	Strongly disagree.....1 Disagree.....2 Agree.....3 Strongly Agree.....4	
404.	I can find a solution to my newborn/young child’s health problem.	Strongly disagree.....1 Disagree.....2 Agree.....3 Strongly Agree.....4	
405.	When my newborn/young child is unwell, I advocate for them to get good care.	Strongly disagree.....1 Disagree.....2 Agree.....3 Strongly Agree.....4	
406.	I can share information about caring for my newborn/young child with my family/friends while in the hospital.	Strongly disagree.....1 Disagree.....2 Agree.....3 Strongly Agree.....4	
407.	I can share information about caring for my newborn/young child with my family/friends in the community.	Strongly disagree.....1 Disagree.....2 Agree.....3 Strongly Agree.....4	

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**Table S5: Items assessing parent’s knowledge and ability to provide nurturing and responsive care**

<b>A</b>	<b>Nurturing and responsive care for newborns</b>
1	I know how to wrap my newborn safely so he/she can sleep
2	I never wake a sleeping baby unless necessary
3	I talk in a “soft voice” when near bedsides
4	I make sure direct light doesn’t shine on my sleeping newborn
5	I know how to do skin to skin with my newborn at the hospital / home
6	A newborn needs a quiet environment to sleep
7	Newborns need to dress warmly at all times
8	My newborn is always kept in a warm room
9	Newborns diapers need to be changed regularly to keep them dry
10	I check my newborn’s mouth for oral thrush and diaper area for rash regularly
11	I know how to keep the cord clean and dry
12	I used chlorohexidine (CHX) for umbilical cord care on my newborn (0-28 days)
13	I wash my hands with soap and water before I hold or care for my newborn
14	I wash my hands with soap and water (or wipe my breast) every time I feed my newborn
15	I know how to position my newborn to breastfeed
16	I change my newborn’s position regularly
17	I know how to nest/wrap my newborn.
18	Pricking my newborn numerous times causes pain and stress
19	I know how to gently insert the naso-gastric tube for feeding
20	When holding a newborn, you need to use slow gentle movements
21	I know how to soothe my newborn
22	I talk to my newborn often.
23	A newborn need to be breastfed within one hour of birth
24	Newborns need to be fed the first breastmilk (colostrum) for a strong immune system and to prevent jaundice
25	Exclusive breastfeeding on demand is good for my newborn
26	Breast milk contain important anti-bodies and nutrients for my newborn
27	Mothers need a balanced diet to ensure they can provide adequate breast milk
<b>B</b>	<b>Nurturing and responsive care for older children 29 days – 2 years</b>
1	I never wake a sleeping child unless necessary.
2	I talk in a “soft voice” when near bedsides
3	I make sure direct light doesn’t shine on my sleeping child
4	I know how to do skin to skin with my child at the hospital / home
5	A child needs a quiet environment to sleep
6	A young child needs to be dressed warmly at all times
7	My child is always kept in a warm room
8	I change my child’s diapers regularly
9	I wash my hands with soap and water when I care for my child
10	I wash my hands with soap and water (or wipe my breast) every time I feed my child
11	My baby needs to be stimulated regularly for their health and development
12	Pricking my child numerous times causes pain and stress
13	When holding a child, you need to use slow gentle movements

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14	I know how to soothe my child when they are in distress
15	I talk to my child often.
16	I play with my child often.
17	If baby is $\leq 6$ months, I (or my spouse) am/is exclusively breastfeeding
18	If baby is $\leq 6$ months, I/my spouse are not giving any liquids, not even water.
19	If baby is $\geq 7$ months of age, I/my spouse have been giving complimentary food.
20	If baby is on complimentary feeds, are you able to provide a health balance diet during the feeds