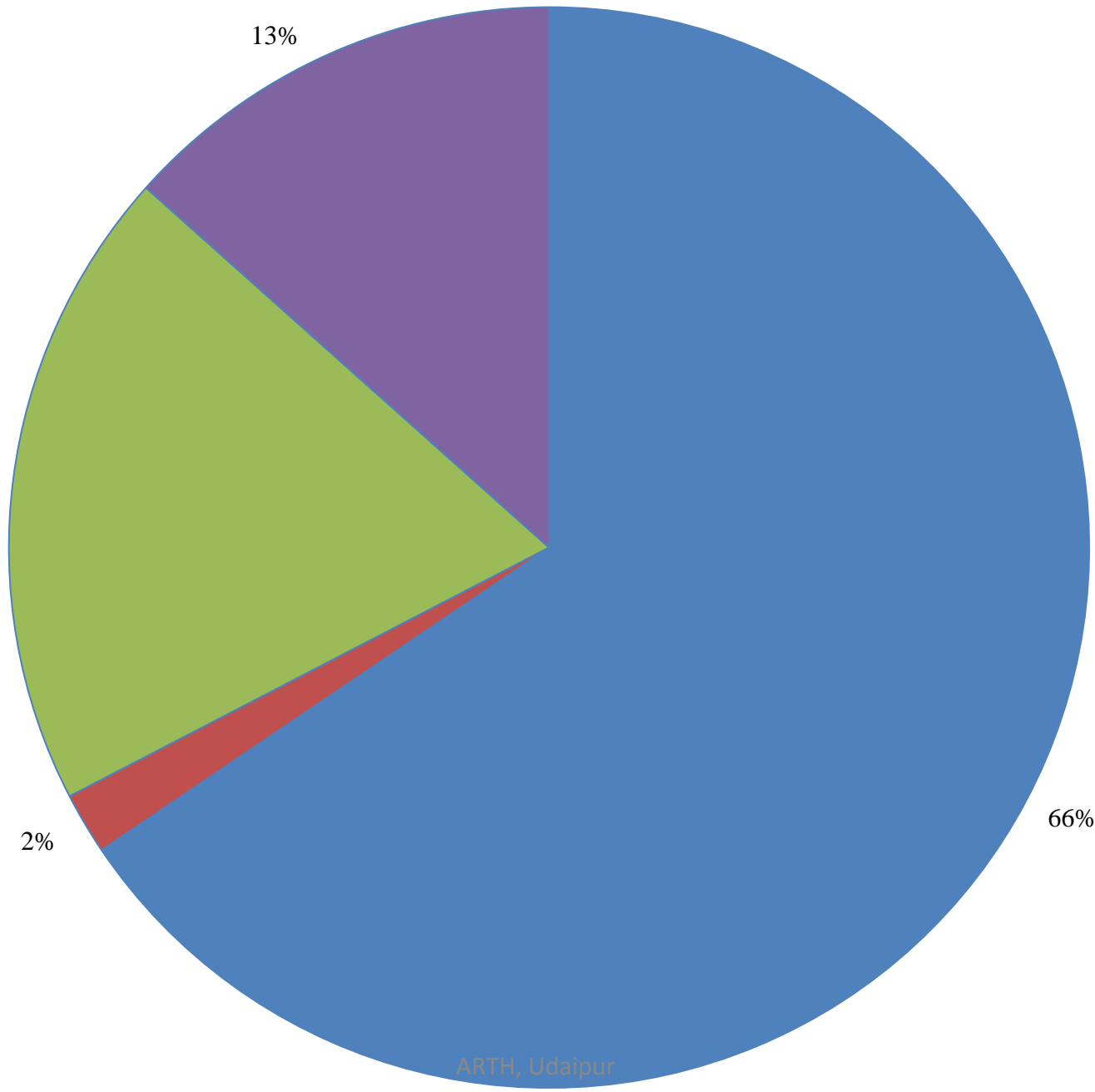


**Maternal-neonatal health continuum:
some highlights
SHARAD IYENGAR**



8 Apr2009

ARTH, Udaipur

Providers for delivery (n=1947 deliveries)

	Home delivery (1276)	Institutional delivery (671)	Total (1947)
At least one professionally qualified provider (doctor/nurse) attended the delivery	24%	100%	50%
Deliveries conducted by single provider	17%	41%	26%
Mean providers per delivery	2.4	1.7	2.2
Category of providers attending:			
Only traditional provider/s	75.9%	0.0%	49.6%
Traditional and modern providers	23.7%	19.7%	22.7%
Only modern providers	0.4%	80.2%	27.6%

Vaginal examinations

During home delivery (4)

By TBA, Bengali doctor, elder family members

- Frequency: 1, 2, 3 and 26 times
- One- 2 fingers of unwashed, ungloved hands are used, which were then wiped on woman's 'ghaghra'
- More frequent when birth attendants felt that progress of labor was 'slow'

During institutional delivery (4)

- By nurse, doctor, TBA
- Frequency: 1-28 times
- For 2 women - Unwashed, ungloved hands, for 2 others- gloves used

- Homes (1276)
- Small clinics (36)
- Health centres (374)
- Hospitals (222)

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Strong fundal pressure

IM inj before delivery

IV drip during labour

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Fundal pressure during home deliveries

The quantum of force is very strong

By TBA, Bengali doctor, family members

During one home delivery the baby shot out onto the floor, its head collided with the side of a sink about one foot away and rebounded towards the mother's introitus...

In a home delivery in which a "Bengali doctor" applied standing compression, the placenta delivered simultaneously along with the baby.

Pushing may continue even after baby is born – till the placenta delivers

Fundal pressure during facility deliveries

Everyone does it

- By doctor, nurse, wardboy, dai, sister in law

Done again and again -- difficult to count rapid pulses

- Woman 1. at least 50 pushes by nurse and 53 by TBA
- Woman 2. At least 85 times by hospital TBA & > 85 times by woman's sister in law (bhabhi)
- Woman 3. Doctor (> 10 times), TBA & mother in law

How forceful?

.. I am tired (of applying pressure)... (turning to mother-in-law).. not you do it (push) ...". A nurse in CHC

Encouraged by doctors

.. "Laloo, this much of force will not be enough, you need to eat almonds..", a doctor telling a wardboy while he had been pushing woman's abdomen climbing on the footsteps

Oxytocin injections

- Referred to as “**Garmi ri Hui**” (heat-injection) or “**dard badhava vali hui**” (labour pain increasing injection)
- In one instance the TBA overtly pressured the village practitioner to assess progress through repeated pelvic examinations, and to give repeated injections – this woman underwent 26 pelvic examinations and received 5 injections before being referred to the hospital where she eventually delivered a fresh stillborn

Oxytocin injections – number of injections

Facility deliveries

- In most cases, 2 –6 injections, mostly oxytocin (one ampoule each time) were given before delivery, IM or in IV drip
- Epidosin injections were also given 1-2 times

Home deliveries

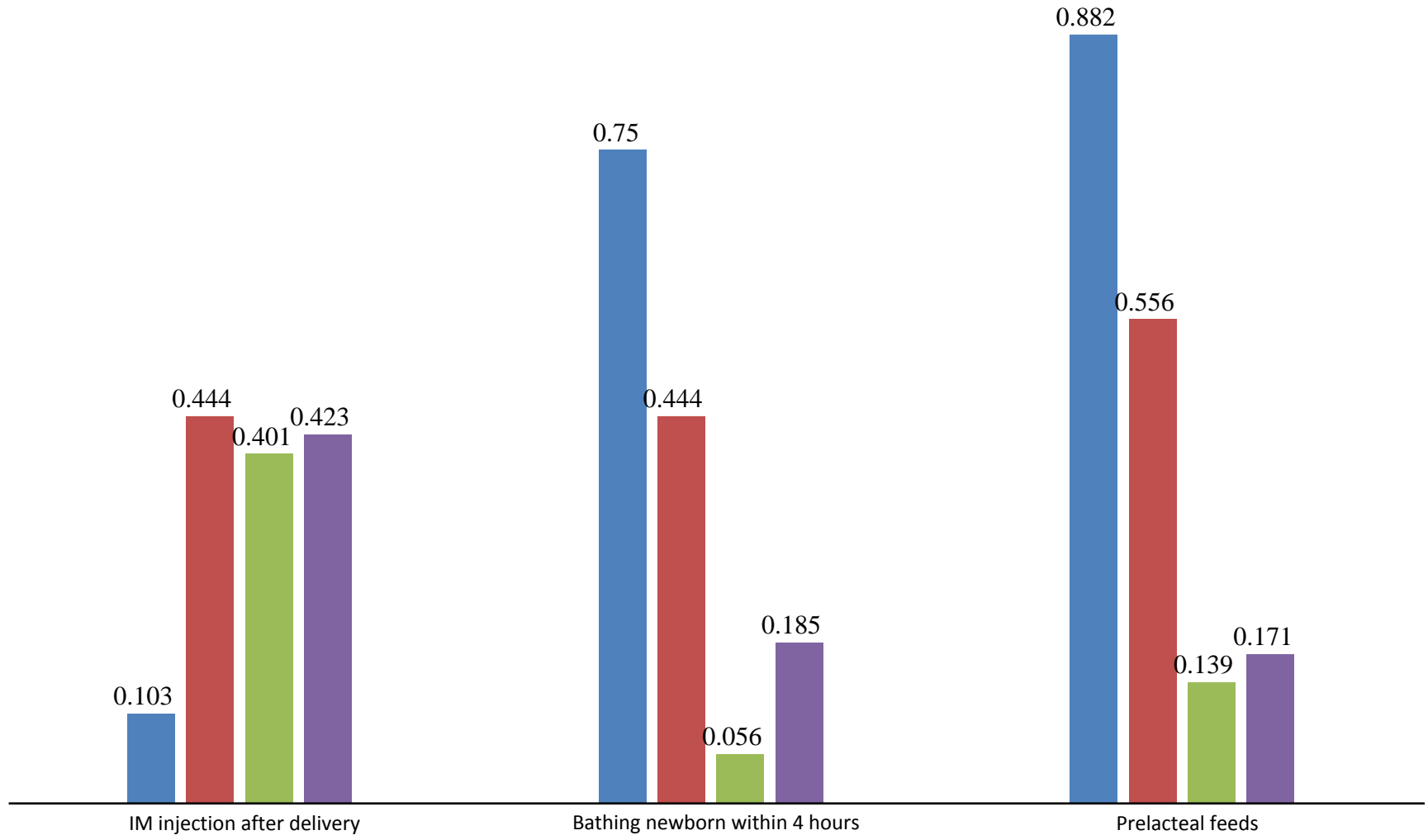
- In all five home situations, TBAs called for heat injection(s) to be given by the attending modern provider
- In most cases, providers gave 1-8 injections.

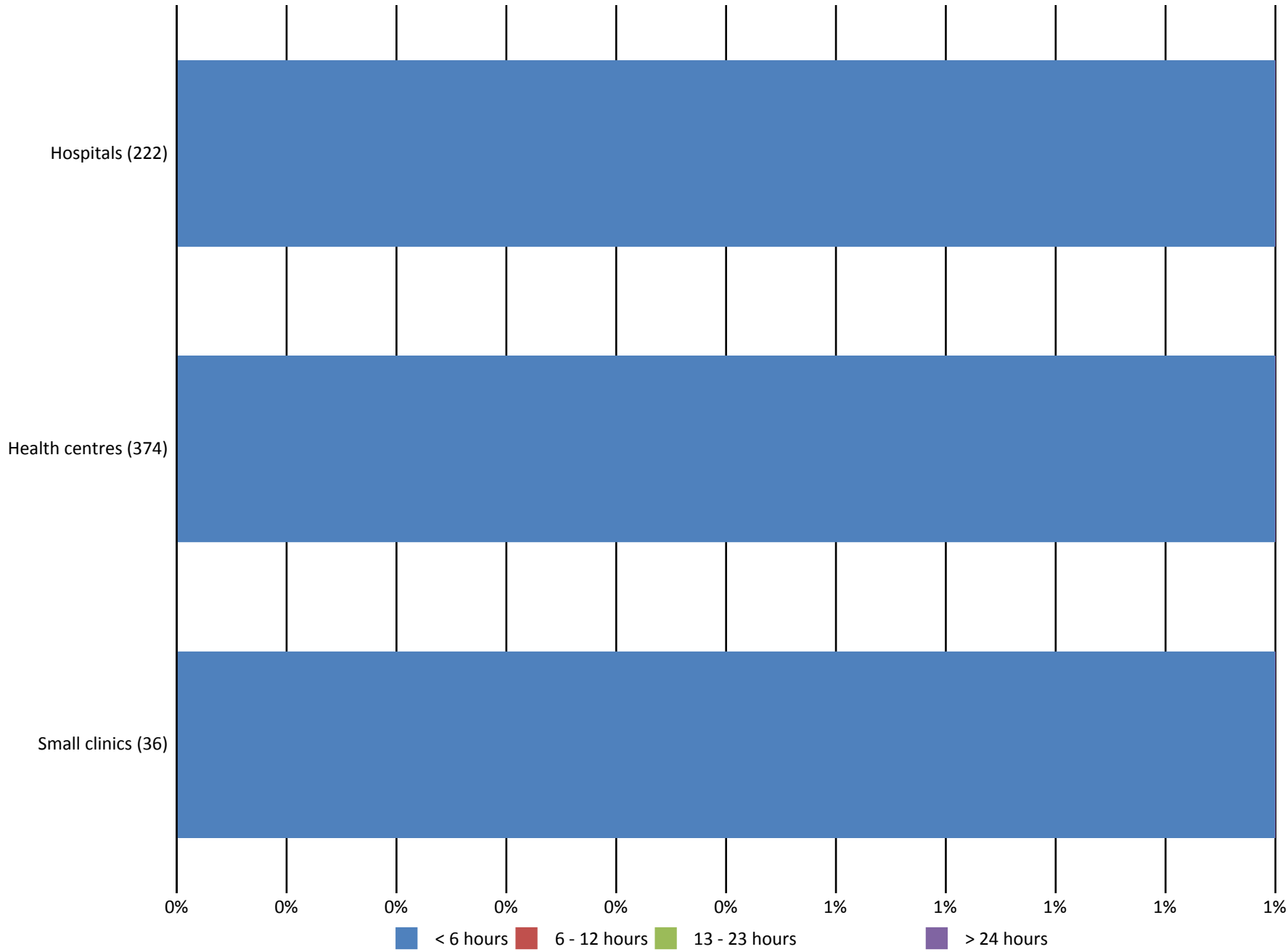
Why are fundal pressure and oxytocin injections applied?

1. The overriding concern among birth attendants has to do with failure of the woman to deliver
2. A healthy and strong woman is able to generate sufficient “taakat” (strength or force) to deliver the baby by herself. Nowadays younger women lack strength, and this has to be compensated by using injections to generate heat in her body and by applying external force (“taakat”) to help expel the baby (and placenta).

Effects on fetus & newborn do not appear not a concern

- Home (1276)
- Small clinics (36)
- Health centres (374)
- Hospitals (222)





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Who prefers early discharge?

- **Family members, especially men:** early return to work once the woman and baby come home
- **Jeep drivers:** by dropping the patient home, they can earn almost double the money in one trip
- **ASHA** can go home early
- **Nurses, compounders, doctors and other staff:**
 - No need monitor the mother and newborn, no night calls
 - Maternity bed is freed up
 - “Up-down” staff can go home in peace, health centre can be closed at night
 - “Cash on delivery” system operates,

***BUT the woman and newborn face the greatest risk of complications or death,
even after normal delivery***

Figure 2. Pathways of women managed by nurse-midwives at the two health centres, from presentation through treatment, with or without referral

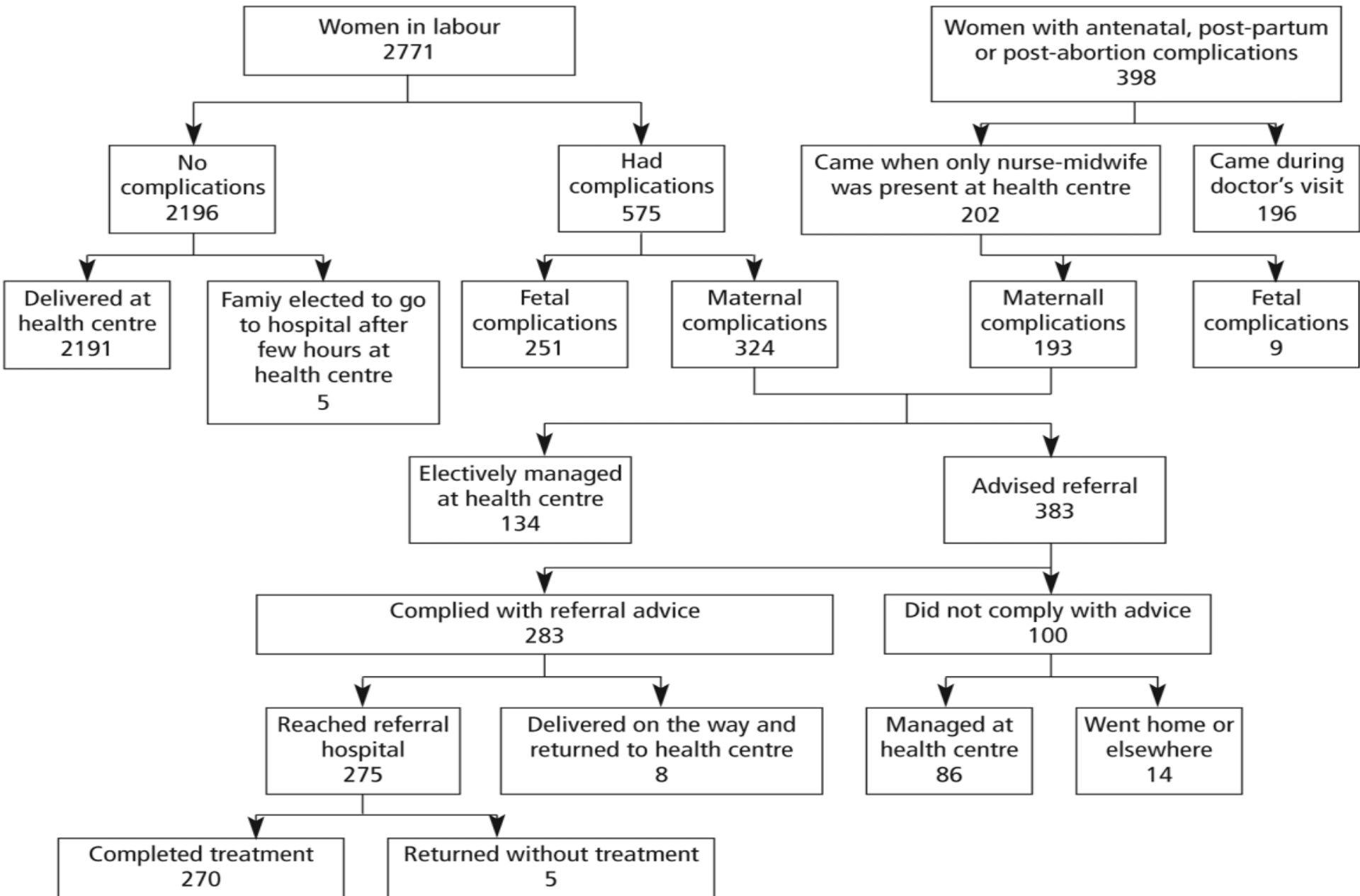


Table 1. Management by nurse-midwives of women with maternal and/or fetal complications, by phase of maternal period

During or soon after labour at the health centre	575	446 (78%)	290 (65%)
During pregnancy	80	80 (100%)	69 (86%)
Following abortion	87	46 (53%)	22 (48%)
After delivery elsewhere or after discharge from the health centre	35	15 (43%)	12 (80%)
Total	777	587 (76%)	393 (67%)

Table 2. Management by nurse mid-wives of maternal complications by type of complication

Type of maternal complied	Number of women with complication	Number (%) of advised referral	Number (%) of those referred who complied	Number (%) of those with complication who were managed locally
Antepartum haemorrhage	62	62 (100%)	52 (83%)	10 (17%)
Severe anaemia	53	53 (100%)	35 (69%)	18 (32%)
Obstructed labour and antecedent conditions	105	96 (91%)	77 (80%)	28 (27%)
Pregnancy-induced hypertension	69	60 (88%)	56 (93%)	13 (17%)
Twin pregnancy	28	21 (75%)	8 (38%)	20 (71%)
Complicated abortion	87	46 (53%)	22 (48%)	65 (75%)
Puerperal fever	6	2 (33%)	2 (100%)	4 (67%)
Post-partum haemorrhage and related conditions	83	23 (28%)	16 (70%)	67 (81%)
Other	24	20 (83%)	15 (75%)	9 (38%)
Total	517	383 (74%)	283 (74%)	234 (45%)

Table 3. Why some women with complications were not advised referral

Maternal complication (number of women)	Woman arrived in active labour, too late to make a timely referral	Nurse-midwife felt confident about managing the complication locally	Woman's condition improved significantly after initial treatment
Obstructed labour and antecedent conditions (105)	4	5	
Complicated abortion (87)			41
Postpartum haemorrhage and related conditions (83)			60
Pregnancy induced hypertension (69)	9		
Twin pregnancy (28)		7	
Puerperal fever (6)			4
Others (24)	4		
Total	17	12	105

ARTH

Families that refused to comply with referral advice

- Families of 100 women with maternal complications did not comply with referral advice
 - 62 women in labour
 - 38 with complications during pregnancy, after abortion, or after delivery

Why Some Families Refused to Comply with Referral Advice

- General Pattern

- Better compliance for maternal complications before delivery than after delivery or abortion

- Exceptions

- Reluctance to travel for twin delivery
- More willing for retained placenta and puerperal fever
- 100% for transverse lie, obstructed labour, and eclampsia
- Less for antepartum haemorrhage and severe anemia

- Family rationale

- Blood donation by family member for anemia or haemorrhage
- Precedent of nurse-midwives treating issues locally

Treatment of women whose families did not comply with referral advice

- Refusal to accept referral can be highly stressful for the referring provider
- Even then, 86 of 100 families remained at health centre where nurse-midwife continued treatment
- 14 preferred treatment elsewhere
- No maternal deaths among women whose families did not comply with referral advice

NAVJEEVAN HELPLINE

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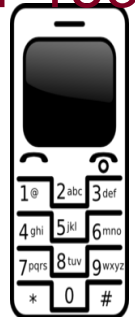
24x7 telephone service to refer sick newborns
up to CHC for treatment

HELPLINE IN ACTION

Life saved



9001 153 153



ASHA/family call Helpline to report sick newborn



Sick newborn & mother collected and transported to CHC



Helpline worker notified Goes to home/CHC



Sick newborn receives timely and appropriate care