CHAPTER IV

DATA EXERCISE

A Rapid Assessment of Quality of Hospital Based Antenatal Care Services in National Referral Hospital, Thimphu, Bhutan.

4.1. Introduction

It is known fact that antenatal care helps prevent adverse maternal and fetal outcome, through regular checkups, identifying associated risk factors, treating and referring women to the appropriate level.

The national health survey conducted in the year 2000 had shown that 51% women had attended at least once antenatal clinic. But only 24% had their deliveries assisted by midwifery trained personals. Given the situation that 89.01% has access to health services within three hours of walking distances. Most health workers had been trained in midwifery during their pre-service training. And department's renewed directions to improve the emergency obstetric care in the country. Yet few women avail service. This gap has stimulated to do assessment in National Referral Hospital. Mothers come first in contact with antenatal services. So the first impression would be

important. It has to do with clients getting on well with the caregiver. The skills and performance staff exhibit. And what the clients expect and what they actually receive. So this has to do with good number of variables. But study will be looking at the service components only.

The National referral hospital trains all categories of health workers so doing the data exercise here might give some picture how the clinics are conducted in the country. But the setting might differ slightly. The referral hospital has some extra services like ultrasonography and access to more specialists. Thus the result may be different but will give some indications of how things may be going in the country.

4.2 Rationale

There is paradigm shift in the maternal care. WHO stresses that all deliveries to be conducted by professionals trained in the midwifery not just trained traditional birth attendants. In Bhutan, of course, we do not have traditional birth attendants. Women deliver at home assisted by their husbands, mother in-laws, mothers, relatives and some rare instances by self. This has caused high maternal and perinatal deaths. Still now very few women understand and use the health facilities during labor. Owing to this there is a need to motivate women to come for assistance from the professionals. It will be important that antenatal service act as negotiating table to bring, if not all, a sizeable number to really use the obstetric services in Bhutan so that maternal mortality drops down significantly.

Before the policy is established we have to create sufficient demand and ought to prepare the institutions and strengthen manpower. Antenatal care as prelude to good obstetric care; all health workers must be sensitized. But the quality of antenatal care has to be acceptable and unto the standards. This goes without saying that antenatal care services should be able to motivate e.g. by drawing up individualized delivery plans and involving pregnant women through process of dialogue with families. So the care becomes very proactive than being 'just' routine. Emphasis on quality must be on regular and sustained basis.

It is a descriptive cross sectional study for rapid assessment of actual practice. This will help in finding out variance between the actual care and the desired care in the antenatal care area. It is also conducted with view to gain knowledge of the clients' satisfaction and needs. It is a chance to see managerial and chronic problem in the clinic, so that some interventions can be planned with the staffs.

4.3 Objectives

4.3.1 General objective:

To find variance in the way antenatal is conducted with those of standards of midwifery practices.

4.3.2 Specific objectives:

i). To conduct client exit interview to find out satisfaction level for the care they receive

ii). To observe way antenatal care is provided.

iii). Observe delivery practices in the maternity wards.

iv). Extract secondary data from the record section to find out the trends in the care.

v). To see possibilities of finding more information through participatory action approach.

4.4 Method

This is rapid assessment method or rapid evaluation method for maternal health using both the qualitative and quantitative methods,

4.4.1 Design

A descriptive cross- sectional study.

4.4.2 Tools

4.4.2.1 Quantitative

a) ANC record from 1998 to 2000 (n=4691 record forms)

b) Delivery Register analysis 1998 to 2000 (n=5929 admissions) Eight record assistants helped secondary data extraction from the records and documentation unit. Data extraction was done from 1st January 1998 to December 2000.

c) In ANC record basic data for initiation of antenatal care, risk identification *(criteria as given in the appendix. 4)* referral of the high risk were looked into. We also looked into place of deliveries for the multiparous women.

d) In maternity records we tried to find out total deliveries, nature of the deliveries whether those were emergency or self-reporting for deliveries. In the emergency category we tried to find out which category mostly came as emergency and tried to see in the record if there were any mechanism of informing the antenatal unit if the clients who came as emergency were from the clinic. We also tried to see total caesarian. The findings are discussed in the subsequent sections.

e) Client Exit interview

A final year trainee (health assistant) from Royal Institute of health Science conducted this. He was given training on how to conduct interview and filling up forms. Since many people came from all walks of life speaking different dialects translating to national language did not serve the purpose, as some people who came

there will require to be translated in the dialect she spoke. The interviewer could speak few of the dialects and he was comfortable to translate in the required dialects.

Sampling

Antenatal clinic did not have records to say how many pregnant women would be attending the clinic for the day. So we decided that a systematic random sampling to be done. That beginning from the tenth patient, every tenth clients would be taken up till we have fifty clients. This was spread through out the period and times of the day, so that hours and days do not have influence on the answers. From this it is to find some of quality indicators and are categorized as:

- Overall satisfaction
- Acceptance of the way the clinic is conducted
- Preferred level of continuity of care
- Experience attending clinic
- Information acquisition
- Services access and provision.

Along with demographic characteristics with education and employment status were also elicited and time motion was also roughly studied.

4.4.2.2 Qualitative

4.4.2.2 Observations,

a) ANC observations (n=50) were done simultaneously by one final year health assistant on the same subjects as sampled for the exit interview.(as explained in sampling in

subsequent section). Fifty observations were made regarding the assessment of clients with the contents, provision of care like giving iron/folic acid and administration of injection tetanus toxoid, and provision of health promotion messages.

b) Two final year midwives trainees made maternity ward or delivery observations (n=35). They had to take purposive sample as whomever came for delivery had to be observed as it was peak winter and not many would come for delivery. So they agreed to observe 35 deliveries being conducted. They observed emergency preparedness, attitudes of the staffs and the adequacy of instruments and supplies. They had to come at night and even on the holidays as the maternity ward functions throughout 24hours.

c) In-depth Interview,

The acting principal of the Royal Institute of health sciences conducted in-depth interview. A mother who had just delivered in the maternity ward with complete series of antenatal care was chosen. She delivered by vacuum extractor after episiotomy. She was readmitted after wound infection. She was in the ward for a week and was her first child.

All open-ended questions were asked and tried to elicit overall satisfaction level, her perception regarding the quality of care, her feelings regarding the antenatal care services and her opinion about why most do not deliver in the basic health units or seek help from the midwives.*(interview guide as given in appendix. 6)*. Interview was recorded in tape recorder that was transcribed and later content analysis was done.

d) Focus group Discussion.

Chief research officer from health department moderated a focus group discussion with other two note takers. The Focus Group members were five from maternity ward and five from ANC clinic. Discussions centered around three areas (*interview guide in appendix.5)* with subcategories in each category. The areas coded were 1) Technical, 2) Skills, 3) General.

In the general focus, discussions were regarding motivation like incentives, supports from supervisors and many other general issues. The whole discussion was completed approximately within one hour.

4.5 Setting

Antenatal care unit, maternity ward and medical records and documentation unit of National Referral Hospital, Thimphu. Focus Group Discussion was held in antenatal demonstration hall and the in-depth interview in the maternity ward.

4.6 Study Duration

27th Dec.2001 to 19th Jan.2002. (21 days excluding 2 government holidays)

28th December to 10th Jan.2002 : Preparation and clearance from the Department and the hospital administration *(Letter in appendix 7).*

Meanwhile training for the observation and exit interview were conducted for a day for the final year health assistants and the midwifery trainees after seeking permission from the principal and the tutors.

Training and the data extraction in the medical record section started after developing tally sheet for the type of data to collect. This started from 8th Jan. and completed on 15th of January.

18th January in-depth conducted by the officiating principal Royal Institute of health Sciences,

19th January : Focus Group Discussion was moderated by the chief Research officer department of health services.

4.7 Analysis

Qualitative data from focus group and in-depth interview were analyzed descriptively after grouping the components under various categories.

Quantitative data were analyzed after coding the variable like 0/1 for binary responses and different code for others like districts were coded from 21-40 descriptive analysis using SPSS software was tested.

4.8 Findings

4.8.1 Quantitative,

4.8.1.1 Secondary data antenatal record from 1.1.1998 to 31.12.2000.

Table 4.1: Showing the time of initiation of visit.

Year	Time of registration.				Total.
	I[st].trimester	2[nd].trimester	3[rd].trimester.	Unsure LMP*	
1998	123	292	99	127	641#
1999	321	661	344	407	1733
2000	323	991	547	556	2317
Total	**767**	**1844**	**990**	**1090**	**4691**
Percentage	***16.35***	***39.31***	***21.10***	***23.24***	***100.***

Data source. NRH, medical records section. # Missing forms.

* LMP= Last menstrual period.

This data revealed that only 16.35% women registered during first trimester. This is very consistent with the program officer's statement that present registration at the first visit is around 16 % but in our exercise we found there were some missing forms which gave this results may be coincidental. There were many women (23.24 %) who were unsure of their last date of menstruation, it is expected, as many women are illiterate.

In the year 1999; 62.86 % had completed more than four visits. There was minimum drop out during the 3rd visit (7.3%) and maximum drop after the 1st visit (17.8 %). Similarly in the year 2000; 62.84% completed more than four visits and similar dropout trend was observed during the third visit (10.03%) and maximum people did not come back after the first visit (16.74%). This will require further studies into causes like abortions and pre-term deliveries or migration occurring in the community and go

unreported. So antenatal can help strengthen the maternal care system in general and improve referral system between all the levels of care.

Table 4.2: High risk detected vs referred.

Year	Pregnancy Status			Referral status.		
	Normal	High risk	Total	Referred	Not referred	Total.
1998	537	104	641	50	54	104
1999	1474	359	1733	225	134	359
2000	1958	359	2317	174	185	359
Total	**3869**	**822**	**4691**	**449**	**373**	**822**
Percent	***82.48***	***17.52***	***100.00***	***54.62.***	***45.38***	***100.00***

Source: Medical records NRH, Thimphu.

Among the mothers who visited antenatal care in the above years show that 82.4 % of them were normal pregnancy. 17.52%(822) were detected to be high-risk pregnancy among these 54.62% (449) were referred and 45.38%(373) of them were not referred. So it seems there is a tendency not to refer the cases to specialists for second opinion. Thus there is a need to look into whether it was failure from the clients side to comply or failure to document and follow up from providers side. So there is need to strengthen the internal communication and updating the information at the clinic level. The records also show about 6212 deliveries took place of which 3372 (54.28 %) delivered at home and 2840 (45.72%) in hospitals. This was recorded on the case sheets as past history from the mothers.

4.8.1.2 Maternity records

Table 4.3: Total emergency and elective admissions.

Year	Admissions		Total
	Emergency	Elective	
1998	514	1472	1986
1999	539	1390	1929
2000	515	1499	2014
Total	**1568**	**4361**	**5929**
Percent.	***26.45***	***73.55***	***100.00***

Source: Medical records NRH., Thimphu.

The above table shows that the maternity ward had 26.5 % (1568) emergency admissions and 73.6 % admissions were elective admission i.e. admitted for normal deliveries. And the data showed 9.7% caesarian section rate. But number of caesarian rate depended on number of obstetrician available at that point of time. Four maternal deaths were observed in three years. The causes of death could not be accessed.

Table 4.4: Breakdown of reasons for emergency admissions of the total.

Conditions	**Frequencies**	**Percentage.**
Pregnancy induced hypertension	257	4.33
Antepartum Hemorrhage	57	0.96
Prolonged labor	88	1.48
Retained placenta	143	2.41
Intrauterine fetal death	93	1.57
Abortion	349	5.89
Ectopic pregnancy	10	0.17
Others	571	9.63*
Total	**1568**	**26.45.**

* Others include the wound infection, urinary infections, false labor pain etc.

Table 4.4 shows that the commonest cause for admission was abortion 5.9% and the second commonest is the pregnancy induced hypertension (4.3%). From this it very clear that antenatal clinic can help in informing the maternity ward about the number of women with hypertension on the record and at the same the maternity ward can exchange about case occurrence in the ward. So far there are no records to show that such exchange of communication happened at all. There are lots of rooms for improvement between the two services in the hospital.

4.8.1.3 Exit Interview.

Demography: Age, parity, education, occupation, employment status and place of their original residence along their husbands education employment status was recorded for cross tabulations.

The interview had picked up clients from 16 different districts out of twenty districts, Bhutan has. And most of the clients' husbands were government employees. Most women were unemployed. 48% of women had no qualification or did not attend any school and usually stayed at home as housewives. 70% of the husbands were government employees in capital. Most of the women had come from different districts across the country, a short summery with their qualification cross tabulated is shown in the table9. It is interesting to note that except for four districts rests of the people could be picked up.

Table 4.5: District and qualification, cross-tabulation of women.

Districts	Qualification						Total
	No education	ClassVI	class VIII	Class X	Class XII	University level.	
Thimphu		1	2				3
Wangdue	2						2
Paro	1	1	1		1		4
Haa				1			1
Chukha	3						3
Sarpang					1		1
Tshirang	1	1					2
Zhemgang	3			3			6
S/jongkhar	2						2
Trashigang	4	2		1			7
Pemagatshel	1						1
Trongsa						1	1
Mongar	2	1	1			1	5
Bumthang				1			1
Lheuntshi	5	2	1	1	1		10
Yangtshi		1					1
Total	**24**	**9**	**5**	**7**	**3**	**2**	**50**

Among those who attended the clinic 54%{ (27) n= 50} were coming for the first pregnancy checkup and the youngest was 16years old and the oldest among the primigravida was 27 years old. Five women were fourth gravida and two were fifth gravida. The oldest among them were forty years old.

The results of the exit interview are shown in the following sections.

i). Overall satisfaction level of the clients.

Table 4.6: Enjoy care provided by the nurse midwife.

Response	**Did you enjoy your carer?**	
	Frequency	Percentage
Yes	49	98
No	1	2
Total	**50**	**100**

The data analysis of this overall of satisfaction is 98%. But there is one respondent who said she did not enjoy the carer or care provider, one can argue that the finding is not very significant, as even one client going away unsatisfied would require further probing as this one client becomes a source of real problem from management point of view. If the person is an opinion leader in the community may be bad for the program. But one must consider whether this mother would the one who will not return for the next check up and die. So there should be no individual variation in the provision of cares, in other words it must be uniform.

ii) Acceptability.

Table 4.7: Mother's personal view regarding physical setting.

Response	Were you happy with arrangement of ANC clinic?	
	Frequency	Percentage
Yes	48	98
No	1	2
Total	**50**	**100**

There is an agreement of 98% regarding the arrangement of the clinic. Actually it was intended to ask the clients regarding the physical arrangement but the women seem not to complain about not having enough benches, the chaotic registration and chaotic client flow. And this would in fact support fact that it will be difficult for people to conceptualize the appointment system.

Table 4.8: Mother's gender preference.

Response	Would mind male carer checking you?	
	Frequency	Percentage
Yes	16	32
No	34	68
Total	**50**	**100**

The data shows that given the choice mothers would like to be checked by the female health-workers. There is growing need to train number of the female health workers for this purpose.

Table 4.9: Preference for doctors to midwife nurse.

Response	**Did you want to see a doctor but didn't?**	
	Frequency	Percentage
Yes	14	28
No	36	72
Total	**50**	**100**

This data shows that there is no real preference of a doctor to nurse midwife. This is positive trend for our country. This trend must be kept up. And more training must be given to nurse midwives to specialize so those problems of shortage of medical doctors can be resolved. The specialists must act as backstopping for the difficult cases. The midwives should take care of the routine care.

iii) Relationship with staff.

Table 4.10: Provider's ability to convince the clients

Response	How well did you get on with your carer or provider?	
	Frequency	Percentage
Very well	16	32
Reasonably well.	34	68
Total	**50**	**100**

Many i.e. 68% of the mothers could not just get convinced by the staff whatever they did for them, meaning thereby staff did not have enough time for the clients in general, so there is hardly any individual attention being paid. Hence there is need to improve the communication skills among providers, also there is need to look into adequacy of staff and organization of the clinic.

iv) Preferred level of continuity of care

Table 4.11: Client's need for same individual for continuity of care.

Response	Did not you mind.....?	
	Frequency	Percentage
Someone different each time	37	74
Small group of 3-4 people	3	6.0
One person but did not mind someone different	3	6.0
Same person each time	7	14
Total	**50**	**100**

Currently people do not really mind anyone for the continuity of care. But understanding of continuity of care should prevail among the health care providers so that there is follow up of the clients and records are well kept. Only about 14% of mothers had some tendency towards this sort of car

Table 4.12: Client's preference for place of delivery.

Response	**Where would you prefer to deliver?**	
	Frequency	Percentage
Hospital	38	76
Home	12	24
Total	**50**	**100**

24% of clients would still prefer to deliver at home. This is despite the contact they made with the services. There is a need to adequately address this issue if we have to bring down the maternal mortality or morbidity.

v) *Experience attending clinic.*

Table 4.13: Client's perception of the waiting time in clinic.

Response	**Waiting time in the clinic**	
	Frequency	Percentage
Far too long	2	4
Bit too long	23	46
Happy with waiting time.	25	50
Total	**50**	**100**

It is clear from the table that people were not very happy with the waiting time. So there is need to reschedule the session. During the entire data collection session we kept timing to see a rough time motion. It was found that for the entire study, time spent was 22hours in total, according to systematic sampling for 50 clients in the clinic we had seen 500 clients in seven days so each client had just 2.64 minutes of service contact. According to WHO every woman should get at least 20 minutes service contact. So, for the long waiting time such a short consultation will require some serious time motion study and plan intervention.

vi) Information acquisition.

Table 4.14: Infromation regarding the preparation of labor.

Response	**How satisfied are with information about preparation of labor?**	
	Frequency	Percentage
Very satisfied	4	8
Satisfied	23	46
Dissatisfied	23	46
Very dissatisfied.	-	-
Total	**50**	**100**

Dissemination of information regarding the preparation of labor seems very poor. The clients were not told about the danger signs of pregnancy and how to recognize them for quick self-referral. There were no delivery plans discussed with mothers at any stage. This concept of individualized delivery plan ought to be formalized.

Table 4.15: Knowledge regarding next visit.

Response	Do you know when is your next visit?	
	Frequency	Percentage
Yes	36	72
No	14	28
Total	**50**	**100**

28 % of the client would go back confused about the day for the next visit but if we really ask 72% who responded positive to tell exact date and the day of the next visit, would increase percent of negative respondents. So there is need to follow standards properly so that the clients are not confused for proper follow up. There is a need for the staff to properly work up detail plans for the clinic not just walk into clinic and start off. There is need to inform the clients what would next visit mean to them and what will be assessed in her next visit. A closer follow up of the clients is required if the program has to make any indent into the minds of the clients. Clients' failure to return in subsequent visit should be inquired and follow up with maternity ward and sending of some reminder may be worked out. A close networking with the maternity ward and with some other district for follow up will improve the referral system. So the antenatal can really initiate strengthening of the referral system in the country.

vii) Service access and provision.

Table 4.16: Access to antenatal class.

Response	Did the clinic provide ANC class?	
	Frequency	Percentage
Yes	3	6
No	47	94
Total	**50**	**100**

There are no systems of giving proper antenatal class in the real sense, but they give some health information as and when time is available. So the response by three persons must have been of such occasion. There is need to conduct regular classes by various specialties like the physiotherapy, pediatric and gynecology at fixed intervals after appointment.

Table 4.17: Knowledge regarding location of labor rooms.

Response	Did you visit labor room in the hospital?	
	Frequency	Percentage
Yes	28	56
No	15	30
No opportunity	6	12
No need	1	02.
Total	**50**	**100**

This was to find out from the clients for location of labor room in the hospital and if they knew where they must go during emergencies. And also to find if the client had some knowledge of how a labor room looked like in our set up. If they knew about clean and safe delivery, they will be interested in it. It seems that 56% of them had visited the labor room in the hospital for some reason or other but we will have to create opportunity for the ones who said that there was no need. If possible a plan visit, lead by the staff, to labor room or video show of the hospital labor room during antenatal class may improve their acceptance and improve access. This can be a simple procedure, which can be done without much cost and increase mother's preparedness for childbirth.

4.8.2 Qualitative

4.8.2.1 Observation in the antenatal care clinic.

Assessments.

These parts of observations were made to see if proper history taking, physical examinations, specific obstetric examinations and laboratory examinations were made according to protocol.

i) Some of the common examinations like taking of *blood pressure* were done for almost every patient. But providers did not really follow *the four hour* follow up if the pressure was found above 140/90 mmHg or raised 15mmHg or more from the baseline diastole (before 16weeks) WHO Midwifery standards 1999. So at any given time if the pressure was above 140/90mmHg the clients were referred to doctors. So the result shows 100% "yes" needs to be revised and be more specific like

taking the pressure whether taken lying flat or sides or sitting or standing. And what is end point of knowing diastolic pressure (Enkin, M. et al 2000).

ii) *Assessing Anemia*: this is done both by clinical and laboratory methods, in the assessment here is whether the patients were given clinical examination for anemia or not. It is shown that 66% of the clients were examined for anemia but 32 % were not really assessed for anemia. It is very important to detect anemia and treat them earlier as 77.1% pregnancy complications were attributed to anemia (annual health bulletin 2000). So there is a need to streamline the procedures.

iii) *Examination for edema*. There is strong association between the pre-tibial edema and the pregnancy-induced hypertension and developing eclampsia so everyone should be examined for edema, as it does not take much time, one can examine as woman is put on the couch for examination.

Table 4.18: Assessment for edema.

Response	**Examined for edema.**	
	Frequency	Percentage
Yes	41	82
No	9	18
Total	**50**	**100**

This table shows that 18% of women were not examined for edema. Whatever is the stage of pregnancy every woman should be given a checkup for edema so that remedial action can be taken if it is associated with raised blood pressure and any sign of congestive cardiac failure is there.

iv) *Examination of height*:

Table 4.19: Measurement of height

Response	**Examination of height**	
	Frequency	Percentage
Yes	6	12
No	44	88
Total	**50**	**100**

Woman, who is below 145cm. must definitely be asked to deliver in the hospital. So during the examination if the woman is most strikingly smaller than many in the clinic should be examined for height and also for those who come for first registration. The checklist has to be redefined as an effective the tool.

v) Examination for urine albumin and sugar

Table 4.20: Detection of urinary problem and diabetes mellitus.

Response	**Urine for albumin and sugar examined.**	
	Frequency	Percentage
Yes	11	22
No	39	78
Total	**50**	**100**

This table shows there is no consistency in the procedure in the clinic. 78% of the cases observed did not receive urine examination whom otherwise should have, This will cause lot of missed opportunity to detect high risk. Hence there is need for setting proper procedures. In the laboratory examination for syphilis is not done due to shortage of reagents.

Care provision.

i) Provision of Tetanus toxoid immunization : Tetanus toxoid is routinely given to all pregnant women with an aim to reduce the neonatal tetanus and tetanus in mother. According to the immunization schedule it is given as first shot at the first contact and repeats after one month and subsequently one shot every year for a total of five shots. This will give protection for life. Here we tried to observe appropriateness of schedule and correct technique of administration. It was found that 6% of the

clients did not receive either according to schedule or there was faulty technique of administration.

ii) *Iron/folic acid supplementation :* That 4% of women did not receive iron supplementation according to requirement means the provision was also not uniform. Actually all women would required to be provided with 60mg of elemental iron and 0.5mg of folic acid twice daily for at least 90 days starting after the first trimester. Since the anemia is high every women should invariably get the supplementation. There is a need to assess anemia in pregnancy in Bhutan as against general population.

Health promotion and Empathy.

Table 4.21: Attitude of staff in the clinic while delivering service.

Response	**Is the patient received warmly?**	
	Frequency	Percentage
Yes	23	46
No	26	52
Total	**49***	**98**

* one missing.

This observation shows that in 52% of cases there was indifference noticed among the staffs. The staff did not find much time to explain the procedure to the clients and did not discuss their findings with them. So there was much less human interaction happening. So there is need for better understanding among the staffs and to be good communicator to give humane touch in a proficient manner. In one case the antenatal record was incomplete which came to 2%. Completeness on the antenatal record is essential and give one aspect of quality of care.

4.8.2.2 Delivery observations.

Thirty five deliveries were observe for the technique, emergency preparedness, communication with other facilities and staff attitude. Two final year midwifery trainees made the observations.

i) Emergency preparedness:

The consistent use of partograph was found to be 80% and in 20% of cases labor was not monitored by partograph. This shows that is variation in the way a labor is being monitored. Thus proper follow up of the standards are very much required.

Examination for anemia, 48.6% of women who came for delivery did not get hemoglobin checked which was otherwise required. It may be that clients came as emergency and there was no need, still it is pertinent to have hemoglobin checked so that no time is lost if emergency at all occurred. This is another area where the hemoglobin and blood grouping done in the antenatal care will be of immense use. So communication between the two units need be established and strengthened. Similarly 85.7% cases blood grouping and information to the blood bank was not given.

ii) Staff attitude during childbirth.

In 40% cases staffs became very angry when the clients cried loud with pain. The staff should be counseling and giving lots of morale supports instead of becoming angry. This is contrary to good midwifery practice. They have also notice inconsistency supply of gloves and disposable needles and syringes. But during their observation period there were no mentions of shortages of medicine like oxytocics or antibiotics.

But there were no visible links exhibited between the antenatal care and the obstetric care; staffs did not really followed what had actually happened in the antenatal clinics. There were no attempts made to inform the antenatal clinic regarding the outcome of the pregnancy.

In general most activities were carried on according to standards. But there is inadequate privacy in delivery room. During winter the labor room is very cold due to inadequate heating system. Mothers shiver badly right after birth of babies. If caesarian had to be conducted client's needs to be pushed by trolleys to Operation Theater, which is quite far from the labor wards. The hospital is looking for a new hospital with all facilities within reach.

4.8.2.3 In-depth Interview

A mother who delivered in the maternity ward and had completed series of antenatal care was requested for the interview. She works as a school teacher in a village in Wangduephodrang district. She consented for the interview.

1. *Perception of quality of care and safe delivery.*

You have just delivered in the hospital. Why did you prefer to deliver in the hospital?

" ***The ANM in Gaselo.. Where I work,... told me that I have poor health so it would be better to go to Thimphu...where there are specialists ..and better equipment... So I came here"***

What were your feelings while delivering in the hospital?

" Is better for me and my child ,.....but there need to be more privacy in the labor room. It is very scary and feel shy... to see someone deliver next bed.....specially when you do not have pain and see someone undergo the pain...sort of psychology.. So a bit more privacy will be better."

2. *Perception regarding the attitude of staffs.*

What do you say about the attitude and behavior of staffs?

"They are very busy. They have lots of patients to look after but they find time to talk to individual patients.....is sort of good."

Do you have any preference for the sex of care-giver during your delivery?

" I would feel comfortable with female nurses....."

In your opinion, what do you think or feel is one of the most important reasons that keep away women from coming to hospital to deliver?

" I think they are shy.....they are sort of exposed....feels uneasy due to low privacy and strange place.....And another reason is they are unsure of their due dates....."

3. *Her knowledge regarding care of new born*

Were you given any lesson on care of your baby immediately after birth?

" ***No.....not much..... advise regarding care of baby when born....but taught how to take care of breast...and breast feeding the child....about diet and exercises....that is all.***"

4. *Her opinion about how ANC and maternity should be doing.*

How do you think we can improve the ANC and maternity care services in future?

"***The present system seem fine..... free medicine should continue...people can immunize their children free... I think since most mothers are uneducated the health workers can give more reinforcement....positive reinforcement to the maternal care.***"

Do you think that husbands should be part of antenatal care program or include their presence at least once during last trimester?

" ***Yes ..if they are not busy ... this can give good moral support...and should at least attend together once .***"

In your opinion why do you think Antenatal care is important?

".....there are good linkages ...things they are doing for the betterment of mother and child...because...if do not go to antenatal care ....how would they know what is the condition of mother and child....next thing if we do not come to hospital for delivery ..in case of any emergency ....there are chances of losing life."

This client seems to have fairly good idea of health care system. We should take few more of such sessions so that there is balance. Such interviews will have to be taken in their home setting and under different conditions like mother who had lost a child during the delivery and people from different walks of life. This interview should be away from the hospital setting.

4.8.2.4 Focus Group Discussion.

During focus group discussion points were centered on the Technical aspects, skills and the some general discussions.

1) Technical

Contents.

The participants felt that ***HIV testing*** in the Antenatal care should ***be initiated*** soon, but they also felt the need for ***maintaining confidentiality***.

Asked whether there was need to change some of the contents they said it was ***quite enough*** *to* ***detect high- risk*** clients. But in National Referral Hospital there should be ***column*** *for* ***ultrasound report*** as more gynecologist started prescribing ultrasound for every primigravida.

Regarding the initiation **of visits** the group felt that ***most women came in the latter part of the second trimester***. Most of the participants did not exactly say what should be the maximum number of visits and what contents to be delivered during each visit. There was quite a bit of argument and resolved that ***maximum visit at present was***

ten. They were somewhat unaware of the WHO recommendation of four visits mean. In content issue of ***non-availability of reagents*** for tests were also raised.

2) Skills.

One thing became very evident that staffs from the antenatal were not included for any training and workshop in the emergency obstetric care and safe motherhood training as '***things have changed and many new things have come***' so there was need to update their skills.

Linking the antenatal care and the maternity should be regular and there must evolve some ***means of communication*** between the units. The unit in-charges should sit together find out means to do that. They felt that this would enhance proper functioning, as the maternity ward would also know what number of women who were visiting antenatal clinic would deliver next month. And the antenatal would be able to know what exactly had happened to their clients who did not turn up on appointed date. Also this would foster good corroboration among the units. The general consensus was that there was ***need for reorganization*** of the clinic but ***enough staffs and other support must be forthcoming***

3) *General discussion*

The clients '***are always in hurry'.... they want fast service***' was the comment. '***We are just two and must cater for nearly 90 cases per day... where is the time for all good things***'. They complained that ***"they have to wait too long" 'We want patients to be satisfied but...problem of less people and the surrounding hospitals***

and basics units keep sending their patients here.' These were the general comments. They all felt that something must done so that ***faster and better services are possible***. Besides this there was need for supervisors to recognize their work. The participants felt that more ***in depth analysis*** of program was required so that ***antenatal care becomes more proac*tive**. But whatever was within their means was always possible to implement like sending information to maternity ward about the number of clients who would deliver during the current month and vice versa. This would improve the working relation and better the care of client

4.9 Summary of Findings, Quality Indicators and Remarks.

Table 4.22: Summary findings.

Methods	Quality indicator	Findings	Remarks
Secondary data ANC.	1.Registration at 16th week. minimum of 4 visits.(WHO)	Much later than 2nd trimester. Visit not consistent.	motivate early & complete visits
	All deliveries to be conducted by trained professionals.	2). 54.28% delivered at home	2). Encourage trained deliveries
	3. Appropriate Referral	3). 45.5% not referred	All high risk be referred and invariably deliver in hospitals.
Secondary data Maternity.	Caesarian below 10%	9.7% but the trend is whenever more gynecologists are available there are more caesarian. 2) high PIH, Abortions etc	To follow EmOC guidelines. 2) Develop action. Plan cross for referral system.
Exit interview.	1).Overall satisfaction exceptionally good	2% not satisfied.	Need for further study.
	2),clinic arrangement good -Gender preference.	2% not happy -32% not male	Address the client flow in the clinic -Address gender issues.
	3) Preference for midwives over doctors.	72% is comfortable with midwives.	To maintain this in our set up where doctors are less.
	4) Relationship between staff and client excellence.	68% reasonably well.	Need more client and staff interactions.
	5) Continuity of care, same person. -All births by trained personals.	78% okay someone different each time. -24% wants home delivery (12).	Stress on good referral and continuity of care. -Quality ANC.

Table 4.22: Summary finding continued.

Method	Quality indicator	Findings	Remarks
	6) Mini(30-45min) waiting time long & service contact(20 min),	50% far too long >2hrs. Service contact just 2.6min.	There is need for decreasing waiting time and increase service contact to 10-15minutes.
	7) Adequately inform clients about problems and progress/ Inform husbands and families.	Information about labor 46% dissatisfied & 46% just satisfied. -28% didn't know time of next visit.	IECH on the high risk, prepare labor plan discuss with families/husbands , Contingency plans.
Exit Interview	100% accessible to all service components	94% had no knowledge about ANC class & 30% did not visit labor room	More antenatal class by different specialty should be initiated. Video caption of labor room may be developed.
Antenatal clinic observation.	History, general physical examination, measurements &lab. tests	Anemia 32% not assessed, 18% edema not examined, 78% routine urine not done,	As these are the main risk markers they must followed religiously.
	Provision of care Concept of "ZERO DEFECT"	6% didn't receive tetanus vaccine as expected, 4% didn't get iron according need.	It is significant and see problem so such does not recur.
	Patient should be properly greeted. Establish good rapport.	52% had indifferent response from staff	Communication skills development training to be initiated.
Delivery observation.	100% use of partograph to monitor labor	2% of labor not monitored	To see into cause of not using such as emergency arrival or staff too sleepy at night to monitor.

Table 4.22: Summary finding Continued.

Method	Quality Indicator	Findings	Remarks
	All patients should be examined for hemoglobin and blood grouping and inform Blood bank.	48.6% Hb. not checked. 85.7% blood grouping not done and no information to blood bank.	This is major deviation the labor people must be prepared any eventualities. Need to study in this.
	Staff should be supportive & all supplies must be adequate.	40% of showed anger. Gloves supplies not consistent.	Staff would require training in communication skills, and interact with supply division
In-depth interview	Well schedule ANC classes, delivery plan to be drawn with husbands/families	No information on care of newborn. Husbands keep distant stance	Antenatal classes by different specialty may be initiated. Very important to bring husbands together once.
	Gender sensitive and cultural acceptability	"would prefer female nurse during delivery"	Has to be sensitive to clients' need.
Focus group discussion.	Technical content coherent with epidemiological trends	Needs to include HIV testing for ANC mothers, Ultrasound report column in card.	There is need to discuss with program for policy implications.
	Minimum Visit four but according to need.	Presently ten visits but staffs are not certain.	Need to follow one standard, like WHO's or develop anew.
	Regular Skills update to improve performance.	" Training and workshops are conducted but people from MCH/ANC not included."	There is urgent need to discuss with the program officers in the department, more so to arrange local workshop bringing people in the nearby health facilities together.

Table 4.22: Summary finding Continued.

Method	Quality Indicator	Findings	Remarks
	Adequate supplies to maintain the process.	Supplies like gloves, speculum, disposable needles and syringes not regular.	Coordination with divisions but there is need to see the consumer pattern in the clinics.
	Stimulate and Maintain staff motivation	"We be included in training and workshops we are forgotten."	There is need to see in general the status of staff motivation.

4.10 Discussion and Conclusions.

Data was collected from National Referral Hospital(NRH) and it reflects antenatal service activities in the hospital. It gives some picture of antenatal services as hospital based care. This does not reflect the actual load in the communities in and around Thimphu. It shows variation of the care that is rendered at that point of time in NRH. It might give some information regarding the way antenatal clinics are conducted across the country because most health workers are trained in the hospital before they are posted to the districts. And the policy is within the same context. This will give fair insight into the organization and ways antenatal care is delivered.

The National Referral Hospital caters for everyone from across the country. Most clients are wives, relatives or government employees. Government job is transferable anywhere in the country. So keeping track at times is difficult. Few of them

are also referred from other districts. So many of them would go back and visit antenatal clinic in their local health centers and some would also deliver in their district hospitals. Thus the drop out or the default that is happening may not reflect true default, as many of them would visit the local clinics. Right now there are no proper retrieval mechanism within systems. People had been trying with tuberculosis retrieval but this is yet to prove its worth. There are breaks in the referral loops. Even if the mails and electronic system are present, the people who use them and apply to general populations have to be keen enough to deliver the goods. Despite these women still use the clinic like in the year 1999, 62.86% had completed more than four visits and the result is similar for the year 2000. But there are much more to be done to make pregnancy safer.

The secondary data from both antenatal forms and the delivery registers show that two systems meant for the maternal care are functioning in isolation. The data like admission due to abortions, pregnancy induced hypertension will help the antenatal clinics to follow up on the clients and the referral outcome. Similarly there are no mention in the forms that patient is prepared and advised for the hospital delivery by ANC clinic. The staffs may say that they tell this every time in the clinic but there were no documents to prove this. So there is need to institutionalize this with regular updates and interaction between the staffs of the maternity and the antenatal clinic. Needs to bring units like postnatal and whole of the maternal care unit together and to work in unison is very much the need of hour. Division of labor is good for effective function but a coordinated action is a necessity for efficacy of the safe motherhood program. The

concept of the continuity of care will require good brainstorming and must plan interventions, which will be beneficial for us.

The client exit interview brings forth certain issue like need for provision of adequate information regarding the preparation of labor and other information relevant to the pregnancy. 50% of the clients were not really happy with the waiting time in the clinic, from clients' perspective but from provider perspective they feel these are due to inadequate number of staffs in the clinic. These two needs to be matched. There are overall shortages of staffs in all units in the hospital. But an action research is required to find ways to improve with the efficiency of existing staffs like by rearranging the clinic schedules and retraining.

The system is becoming more of medical intervention than giving people psycho-social support as the interview, antenatal, and maternity observations showed, staffs are becoming more perfunctory than humane. So striking balance will be important on one side to be fast and proficient and on the other to have enough time and to give more humanely touch to everything. It's time that system must evaluate itself and develop strategies for increasing the efficiency of the entire program with particular reference to maternal care. The development of communication skills will be one most important.

Antenatal care services would require people who are experienced in the communication skills. So the system must not allow inaction in clinics where constant harmony in the wavelengths is required between two individuals. Variation in the

practice of medicine is imminent but the staffs should possess knowledge to control over variation. All staffs must be trained. At all levels in the clinic members must exercise control over variations and be more clients oriented not for the sake of norms. The root causes of the problem in the clinic must be addressed and all the staffs must be clear about each other's roles and responsibilities if the quality is to be sustained.

In-depth with the postnatal mother was very educative she emphasized the health workers role in the community where education is very low. She said that the health workers must reinforce the health education and information to the mothers. Interestingly the roles of husbands to participate during the antenatal care and to insist those husbands to join at least once during the clinic and discuss the delivery plan.

Focus Group Discussion indicated that there was need to update the skills of the staffs to match the clients' expectations. The program officers needed to realize the importance of the antenatal care, which precedes the delivery in cases of pregnancy. As prelude to good obstetric out come antenatal care should receive boosting from all quarters interested in maternal wellbeing, were the feelings among the participant.

The study about the antenatal is complex and requires detail planning. But this field is very interesting to go through the whole processes of the maternal care intertwined into web of human feelings.

4.11 Limitation

Secondary data obtained through the rapid appraisal is inexpensive gave enough information of what events really happened in the past. But there were lots of gray areas like illegibility, missing forms and pages, incompleteness, blackened and torn parts and pages making it difficult to interpret information. While extracting the information the people become tired and they tend to overdo or under-do information. Setting for in-depth interview needs to be away from hospital setup. We have to take people who are opinion leaders or some more people with different experience with the maternal care, like relatives of the mother whose child had died in the hospital, or mother who had bad outcome or people with different background.

In the exit interview the questions need to be rephrased and made simple. Some of the questions did not quantify certain measure like "waiting time too long or far too long" etc. The researcher must have good working knowledge of few major dialects. The questionnaires need to be translated several times to really make sense to the mother. The interviewer must patiently and tactfully ask questions so no one (question) offends the interviewee.

Observing delivery practice was bit difficult they have to come any odd hours. They have to really wait in the labor room and see what is being done.

4.12 Lesson Learned

Most important lesson learned is to prepare everything in detail especially all the instruments, clear all administrative ordeals. Secure financial supports to pay people who help in data collection for at least fifteen days' daily allowance.

Categorizing or coding of the in-depth and Focus Group Discussion analyzing them is quite challenging. Ethical issues and consent taking is yet another tricky and difficult issue.

In exit interview since people from all different language background visited interpretation was difficult this was more difficult because many mothers who attended this session were uneducated, young and first time mothers to be.

During antenatal observations the checklist was too general so the checklist must be made more user friendly and very specific. There were chances of bias.

Focus Group Discussion was conducted in English. The participants would require lot of probing. There was need for icebreaking session and many of them won't speak out. The questions or guideline must be very clear. Focus Group Discussion could bring out organizational issues and become very sensitive if the moderator is not well trained.

Overall view is that data exercise is interesting and challenging. We have to have detail plan, develop the instruments after thorough discussion, check for the feasibility, act within the timeline and available resource and plan for the report writing.

This whole data exercise was made possible through support of all the staffs of antenatal unit, records and documentation sections and the mothers who consented for their time and resource.

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