# CHAPTER V

## PRESENTATION

This chapter outlines the thesis portfolio presentation, which consist of three main components:

1. The first part is the core points from the essay, in this the problem definition, the conceptual framework for approaching the problem, and the general idea of intervention in antenatal care is discussed. The problem of high maternal mortality despite significant antenatal coverage and the usefulness of such coverage are highlighted. Quality improvement through conscientious control of variance in the delivery of the antenatal is put up for discussion.
2. The second part is the data exercise an exploratory study in the National Referral Hospital, Thimphu. Presentation is made in the following order :
   - Rationale
   - Objectives
   - Instruments
   - Sampling

- Findings
- Lessons learned

3. The third section is the proposal for the project which will be carried on in National Referral Hospital, the rationale for approach and research methodology is presented in the following way:
    - Rationale of the study
    - Objectives
    - Research questions
    - Method
4. A conceptual framework for variance analysis and the approach to implementing the continuous improvement is put forward.
    - Monitoring and evaluation
    - Activity plan
    - Budget
    - And the limitation of such a study.

## Thesis Title.

An Action Research To Increase Assisted Deliveries By Midwifery Trained Personals Through Reorientation And Continuous Quality Improvement Of Antenatal Care Services In National Referral Hospital,Thimphu, Bhutan.

-Dorji Wangchuk(MPH student 2001)

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## Operational definitions.

- **Antenatal Care** "Although *antenatal care* is usually thought of as serving a purely *preventive function*, in practice it operates as a *screening system* to identify pregnancies *at high risk of poor fetal* or *maternal outcome* in order that the 'full force' of the obstetric services can be brought to bear early,before irreversible problem develop."(Hobbs,Micheal ST)

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## Operational definitions...

- **Midwifery trained personal** is a person with midwifery obstetric skills who has the skills and knowledge to:

-supervise, give care to, and advise women during pregnancy
-conduct deliveries on her/his own responsibility
-provide emergency measures
-provide health counseling and education.

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## Operational definitions...

**Quality Improvement.**

- "To do right thing right the first time and do it better the next time" (Al-Assaf.AF, 2001)

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## Global Scenario.

- Maternal mortality rate: 515000 per year. (WHO/UNICEF/UNFPA 2001)
- 99% occur in developing world & 99.4% of all deaths are public health importance(Rodolfo.A; 2001)
- 40% comes from South East Asia.(WHO/SEA.1999)
- 1 in 4 adult women suffer from acute or chr.condition related to child birth (The World Bank1998)
- Maternal morbidity estimated between 18-60m (UNICEF,1999)
- 20 % <5years disease burden is related to perinatal condition & 3m newborn deaths The World Bank1998)

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## Some of the causes of maternal deaths.

- Direct causes 75%
- Haemorrhage 28%
- Unsafe abortion 19%
- Eclampsia 17%
- Obstructed Labour 11%
- Infection 11%
- others 14%

- Indirect Causes 25%

……………….... 21%
…………………..14%
…………………..13%
…………………..8%
…………………..8%
…………………..11%

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## Lifetime risk of maternal deaths.

| | Maternal mortality ratio. | Lifetime risk 1 in |
|---|---|---|
| World total | 430 | 60 |
| Africa | 780 | 16 |
| Asia | 390 | 65 |
| Europe | 36 | 1400 |
| W.Europe | 17 | 3200 |
| LAC* | 190 | 130 |
| N.America | 11 | 3700 |
| Australia&N.Zealand | 10 | 3600 |

*LAC : Latin American & Caribbean

(UNFPA 2002).

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## ANC coverage vs deliveries with skilled personals.

- Global 68% at least one visit vs. Skilled attendant 57%
- Asia 65% vs 53%.
- Africa 63% vs 42%.
- LAC 73 % vs. 75%
- Europe 97% vs 98%
- N.America 95% vs 99%.

(source. World Health Day 7th April 1998)

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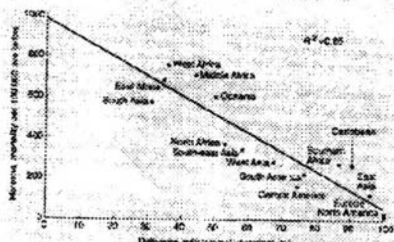

Oxford Textbook of Public health 3rd Edition

## Has ANC achieved its means in Bhutan?

- All women who attend antenatal clinics do not seek help from midwifery trained personals.
- 51% of women who had contact with ANC, only 24% had assisted delivery. (National health survey 2000 )
- 72% come late for antenatal care
- 77.4% of pregnant women are anemic.( Health bulletin 2000)
- 55.8% come with retained placenta. ( Health bulletin 2000)
- MMR 255/100,000
- Lifetime risk 1 in 9.( WHO/SEARO 1999)

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## Why Antenatal at all?

Pregnancy is normal phenomenon but:

- High vulnerability due to poor nutrition, too early, too frequent and too many births.
- Hazards of poverty,illiteracy and harsh living conditions all bag for **extra care.**

**For health services it is an opportunity:**

- to improve health system
- to reach out to the most who need care.

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## Overall maternal care.

- Prevents 75% perinatal deaths,
- more than 50% infant deaths,
- 99% maternal deaths,
- cost effective,
- improves human productivity,
- alleviate & eliminates suffering.

(The World Bank report 1999)

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## Effectiveness of Antenatal care.

- Risk of pregnancy death was 7.7 times higher without ANC (Koonin,et.al 1997)
- Maternal mortality was 197 100,000 without ANC and 19 with it in a study in Beirut,Lebanon,
- and in Vietnam 34% maternal death with ANC as compared to 74% without.

( Sundan,SK: 1992 )

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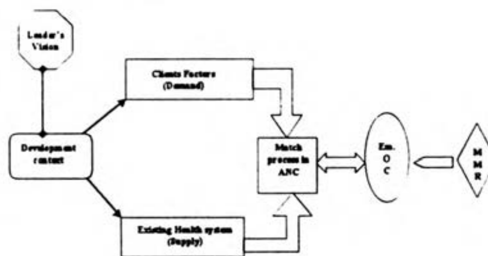


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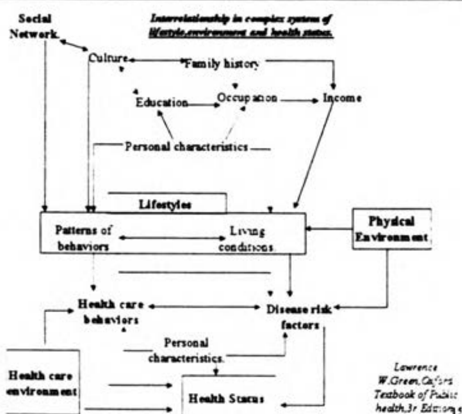


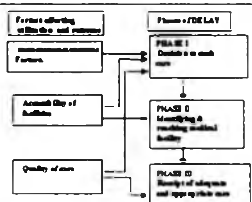

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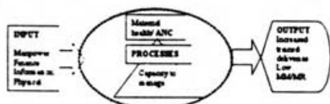

(Ingvar, 1998)

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## Is the service handled well?

- Inconsistent use of norms /standards,

-irregularly spaced visits,

-long waiting time, mothers are ill informed/no feedback.

- No communication between antenatal clinic and obstetric care.
- Visits are ritual than rational.

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## Contd... 1.

- No time is routinely devoted to know the mother.
- Antenatal care becomes medicalized
- No birth plans are drawn and discussed.
- Husbands and relatives receive no information from providers,
- No health promotional messages imparted.

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## Contd...2.

- Wide gap between information/skill & performance.
- Fragmented approach-no integration.
- Lack of upgrading supplies, equipment facilities, personals.
- Vague policy at the operational level.
- Inadequate referral system.

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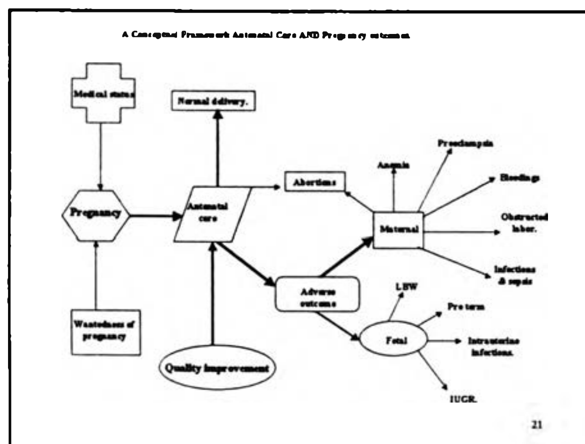


## The Antenatal care.

- Content:
- Assessment:

  -history, physical exam, lab tests Screening
- Health promotion.

  -initiate dialogue with clients pregnancy & childcare etc.
- Care provision.

  -Tetanus vaccine, iron/folate.

- Visit:
- Initiation of visit.
- Frequency/Interval.
- And number of visits.

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## WHO Recommended ANC.

- First visit fourth month (16 weeks):screen anemia, STI, risk factors and medical conditions.Develop individualized birth plans.
- Second visit in sixth or seventh month(24-28 weeks) and
- Third visit in eight month (32 weeks): Screen preeclampsia, multiple gestations,anemia and reinforce birth plans.
- Fourth visit in ninth month(36 weeks): To identify fetal lie/presentation and update the individualized birth plans.

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## Antenatal Screening.

- 1.Associated with women's medical,social.
- 2.Arising during pregnancy.
- Identification of risk does not eliminate or alter the possibility of adverse outcome,
- None of screening tests are satisfactory.

(McDonagh,Marilyn;1996)

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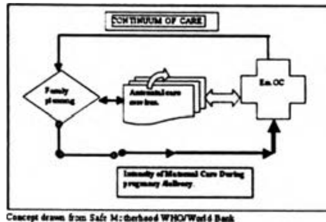

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## Data Exercise.

- Setting: Antenatal care unit, maternity ward and medical records and documentation unit of National Referral Hospital, Thimphu, Bhutan.

- Duration: 27th Dec.2001- 19th Jan.2002.

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## Contd..

- Rationale

- What are current practices in the ANC services in Referral Hospital?
- Does antenatal care offer enough opportunity to attendees to appreciate association between good obstetric care and completeness of attendance?
- What are the trends and perceptions of mothers regarding antenatal care in the National Referral Hospital.

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## Objectives:

- *General:*- To find variance in the way antenatal care with those of midwifery standards.
- *Specific:-* i) to find out client satisfaction level,
- ii) to find out deviations ANC provision,
- iii) to understand current delivery practices in maternity ward.
- iv) Access secondary data to find out the trends

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## Method.

- A rapid evaluation method for maternal health. Using both qualitative and quantitative methods.
- **Design:** A descriptive cross-sectional studies.
- **Study Population and sample:**

Pregnant women who attended ANC clinic,n=50.
delivery n=35.
Health personals n=10. And one postnatal mother.
Secondary data from 1998-2000.ANC=4691,
maternity admission =5929.

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## Data collection methods.

- Qualitative:

-Focus group discussion
-In-depth interview
-observations, ANC and Delivery.

- Quantitative:

-Secondary data,
-Client exit interview.

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## Sampling.

- **Client exit interview and observations.**

- 50 pregnant women who attend ANC by systematic sampling every 10th women spread over seven working days. Conducted by health personal from Health school.

- **Delivery observation** by purposive -n=35.
- **Focus group discussion** purposive -n=10.
- **In-depth interview** with postnatal mother with complete ANC and delivered in maternity ward.

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## Findings.

- Secondary data :

- ANC records(4691) :- Only 16.35 % registers early for ANC visit.

-High risk identified n=822., 373 (45.4%) were not referred.

-Of 6212 previous deliveries recorded as per history 54.3% delivered at home.

-No record of internal referrals

-Incomplete record.

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## Contd...5

- Maternity records:(Total=5929).

**-26.5% emergency admissions** (1568)

-Abortions 6.9%(349),

-Pregnancy induced hypertension 4.3%(257),

-Retained placenta 2.4%(143)

-Intrauterine fetal death 1.6% (93)

-Prolong labor 1.5%(88).

- Caesarian section 9.7%.

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## Contd...6

- Exit interview:

-Overall satisfaction 2% not satisfied.

-Gender preferences 32% will not prefer males,

-Preference for midwives over doctors 72%

-Relationship to staffs 68% reasonably well,

-waiting time in the clinic far too long 50% (>2hrs.)

-Service contact 2.6 minutes

-Adequate information about labor 46% dissatisfied & 46% just satisfied.

-Knowledge about ANC classes 94% no knowledge.

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## Contd...7

- Antenatal clinic observation:

-32% anemia not assessed,

-78% urine not tested.

-18% edema not examined.

-6% didn't received tetanus vaccination properly.

-4% did not get iron tablet in right dose.

-52% indifferent to clients.

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## Contd...8.

- Delivery observations:

-48.6% hemoglobin not checked

-85.7% no blood grouping and information to blood bank was given.

-40% of times staff became angry with the labor patients.

-Gloves not in consistent supply.

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## Contd..9.

- In-depth interview with postnatal mother

-No information about care of newborn during ANC.
-Husbands not targeted during ANC
-Gender Sensitivity & preference during delivery.
-Low privacy in the delivery room.
-Staffs very busy.

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## Contd... 10.

- Focus group Discussion.
- Needs to include HIV testing for all mothers
- Ultra sound report column in ANC cards.
- No of visits ten but not sure !
- Needs skill upgrading.
- Supplies of essential items like gloves.speculum irregular.
- Too less staff with too many clients.

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## Lesson learned.

- Detailed preparation of all the instruments and proper sequencing of events in a flowchart with possible obstacles noted.
- Clear all administrative & financial matters.
- Clear cut categorizations or coding of qualitative tools has to be agreed before hand,
- Ethics and consent taking is somewhat difficult.
- Too many dialects hinders the interview.
- Getting time for help from others yet another problem.
- More in-depth interview in home setting.

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## Recommendations.

- Establish link between the ANC & Maternity wards,
- Work out to better referral and feedback.
- Gap analysis of performance and the skills.
- Rescheduling with proper follow-up visits.
- Introduce individualized birth plans discuss with maternity units and network with other centers.
- Require some research to look into high abortion rates and pregnancy induced hypertension.

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## Proposed project.

**Research questions:**

- 1).Will reorientation of current antenatal care practices improve quality and result in increase in demand for midwifery trained personals or institutional deliveries?
- 2) Do processes of continuous quality improvement in antenatal care have role in bringing down variance in the practice and more number of ANC attendees opt for trained deliveries?

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## Objectives.

- General objective
- To increase number of deliveries assisted by midwifery trained personals especially among the antenatal clinic attendees by quality improvement process.
- Specific objectives:
- to find out difference in the real practice and what is prescribed in the standards,
- to find out clients perception of trained deliveries among those who attend ANC clinic.

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## Contd.

- To identify causes of noncompliance of ANC referral patients to maternity wards,
- to understand the applicability of PAR in other clinical setup in the hospital,
- to find out ways to increase overall hospital productivity with reference to ANC.

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## Method.

- Action research through formation of team consisting of gynecologist, medical officer, permanent staffs of antenatal, maternity and pediatric ward staffs.
- By using quality improvement process/problem solving model after gap analysis to move from actual practice to the Best practice.

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## Data collection methods.

1. **Qualitative methods:**

- In-depth interview with postnatal mothers
- observation recordings from midwifery audit tools

(WHO midwifery Standard antenatal audit tools)

2. **Quantitative methods.**

- Client exit interview questionnaires
- Medical records reviews
- Client flow analysis in the clinic,assess service contact/ waiting time.

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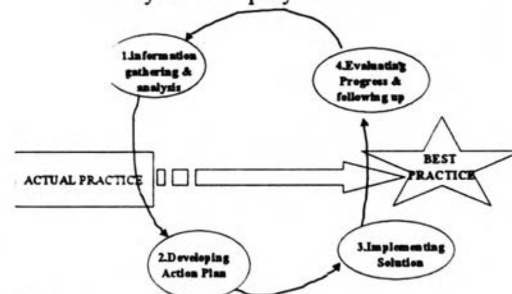
## A Cyclical inquiry method.

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## Information gathering.

- To identify gap between actual practices and the standards, then to find root causes, prioritize solutions, implement the easiest which is within one means earliest,every team member is responsible.
- Baseline data collection before the project.
- Discuss every month and record the change.

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## Study population.

- Staffs of Antenatal care and maternity care.
- A rapid appraisal from the antenatal attendees by exit interview.

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## Study duration, setting & budget.

- Study duration ....2years( 1.1.03- 12.12.04)
- Study setting ....Antenatal Clinic,National Referral Hospital, Thimphu, Bhutan.
- Total Budget is USD. 16210.

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## Monitoring.

- It will be continuous process, following will be done regularly;
- provide guidance and support to complete task,
- Readjustment of unrealistic timeline,
- involve others if the original person responsible is deemed inappropriate,
- Exploring together with staff alternative root causes and solutions,
- Rethink a solution that has turn out not feasible.

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## Evaluation.

- End of second year more numbers of ANC attendees would have chosen midwives assisted deliveries.
- A positive change in staff performance.
- Narrow variance in practice.
- Client satisfaction level better than before.
- An increase in ANC attendance.

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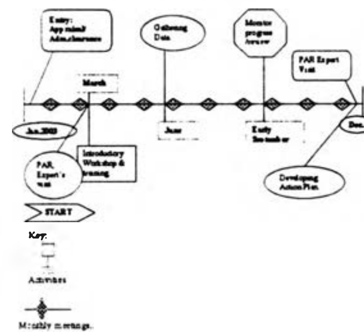


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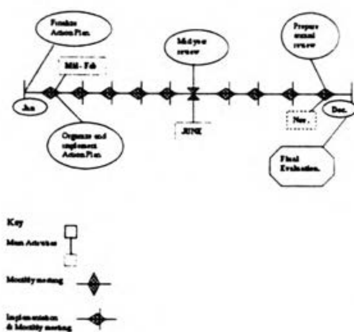


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## Limitations.

- The general literacy/ education.
- Continued support from supervisors.
- Effective monitoring during implementation,
- General trends in planned parenthood,
- Good support from allied units,
- Effective referral network.

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## I Offer my heartfelt thanks to...


- Prof.Samlee Plianbangchang,Dean, for all the support.
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