

## REFERENCES

- Afsana,k.,Rashid,SF. (2001). The challenges of Meeting rural Bangladeshi women's needs in delivery care. *Reproductive Health Matters*. Volume 18, issue 9, pp: 79-89.
- Bayer,A.(2001). Executive summary: Maternal mortality and morbidity; Population resource center. Available from : [www.prdc.org](http://www.prdc.org).
- Becker,MH. (1974). The health belief model and personal health Behavior. *Health. Health Education Research: Theory and Practice*, Volume 13, Issue 3, pp.
- Brown, SS. (1989). Drawing women into prenatal care. *Family Planning Perspective*, Volume 21, Issue 2, pp-73-80.
- Burks, JA. (1992). Factors in the utilization of prenatal service by low-income black women, *Nursing Practice*, Vol.17, Issue 4, pp 39-49.
- CDC, (2001). Recommendations and reports by Task force on community preventive services. *Morbidity and Mortality weekly report*, October 26, vol.50, (RR18)pp 1,Available from : [www.cdc.gov](http://www.cdc.gov).
- Celik,Y. Hotchkiss,DR. ( 2000). The socio economic determinants of maternal health care utilization in Turkey. *Social Science and Medicine*. Vol.50, Issue 12, Page: 1797-1806. © Elsevier Science Ltd.
- Chapman, RR. (2003). Endangering safe motherhood in Mozambique: prenatal care as pregnancy risk. *Social Science and Medicine*.vol.57, Issue 2:pp 355-374 © Elsevier Science Ltd.
- Faden,VB.Hanna,F.(1997). The effect of Positive and negative behavior during gestation on Pregnancy outcome. *Journal of Substance Abuse*. Volume 9, pages 63-76.

- Fleiss, JL, (1981). *Statistical methods for rates and proportions*, second editions, pp.38-45. John Wiley and Sons. New York.
- Gennaro,S.et. al. (2002). Health Promotion for child bearing women in Rubanda, Uganda. *Journal of Perinatal and Neonatal Nursing*, Vol.16, Issue 3, Pg.39.
- Glanz.K.,Lewis,FM. Rimmer, BK.(1997). *Health behavior and health education-Theory research and practice*, Second edition, Jossey- bass Publishers, San Francisco.
- Goldman, NG. Dana.A. (2003). Evaluation of a Midwifery Care: Results from a survey in Gautamela. *Social Science and Medicine*, Volume 56, Issue 4, Pages: 685-700.
- Graham,WJ. ( 2002). Now or Never: The case for measuring maternal mortality. *The Lancet*. London: Volume 359, Issue 9307; page 701.
- Griffiths,P. Stephenson R. (2001). Understanding user's perspectives of barriers to Maternal Health care use in Maharastra, India. *Journal of Biosocial Science*. Volume 33, Issue 3, pp. 339-359.
- Handmaker, SH. Wilbourne, P. (2001). *Alcohol Research and Health*. Volume 25, Issue. 3, pp.219.
- Jowett,M. (2000). Safe motherhood interventions in low-income countries: An economic justification and evidence of cost effectiveness. *Health Policy*. Volume 53 Pp.201–228. Available from : [www.safemotherhood.org](http://www.safemotherhood.org).
- Koblinsky,M.( 1993). “ Mother and more: A broader perspective on Women's health”, in Koblinsky edited “The health of women: A global perspective”. West view press. Oxford. Available from : [www.safemotherhood.org](http://www.safemotherhood.org).
- Langford,KS. (2002). Infectious disease and pregnancy: *Current Obstetrics and Gynecology*, volume 12, issue 3, pages 125-130, © Elsevier Science Ltd

- Lipstein,HL. Christopher.CC. Robert.S. (2003). Review: A current concept of Eclampsia: American Journal of Emergency Medicine; Volume 21, Number 3, May 2003.
- Mackay,AP.Berg,CJ.Atrash,HK.(2001). Pregnancy related mortality from Preeclampsia and Eclampsia. Obstetric and Gynecology, Vol.97, issue 4, Pages; 533-538. © The American College of Obstetricians and Gynecologists
- MCPC, (2000). Managing complications in Pregnancy and childbirth: A guide for midwives and doctors. World Health Organization, 2000.
- Miller,SS. et.al. (2003). where is the “E” in MCH? The need for evidence based approach in safe motherhood. Journal of Midwifery and Women’s Health, Volume 48, Number 1.
- Morgan.K., Kumaran,SA.(2003). Antepartum Haemorrhage,: Current Obstetrics & Gynaecology, Volume. 13, Pages 81- 87, Elsevier Science Ltd.
- Mwaniki, PK. Kabiru, EW. Mbugua, GG. (2002). Utilization of Ante natal – Maternity services by Mother seeking Child welfare services in Mbeere district, Eastern Province. Kenya. East African Medical Journal, Volume 79, Issue 4, pp.184-87.
- Navaneetham, k. Dharmalingam, A. (2002). Utilization of Maternal health services in Southern India. Social Science and medicine, Volume.55, Issue 10, Pages 1849-1869.
- Okolocha,C. Chiwuzie, J. Braimoh, S. (1998). Socio-cultural factors in Maternal Morbidity and Mortality: A study of Semi Urban Community in Southern Nigeria. Journal of Epidemiology and Community Health. Volume. 52,Issue 5, pp 293.
- Raghupathy, S. (1996). Education and the use of Maternal Health care in Thailand. Social Science and Medicine. Vol.43, no. 4, pp. 459-471.

- Rashid, SF. (2001). Social interaction and diffusion of knowledge: BRAC's adolescent Reproductive Health education (ARHE) program in Rural Bangladesh- WHO Bulletin. Available from : [www.who.int](http://www.who.int).
- Rogers,EM. Storey,JD. (1987). Communication campaigns: Handbook of Communication Science, pp.817-846, Russell sage foundation.
- Ronsmans,C.et.al. (2002). Questioning the indicators of need for obstetric care, Bulletin of the World health organization, Volume 80, no.4, Geneva 2002.
- Suchman,EA. (1967). Evaluative research: Principles and Practice in Public service and Social Action Programs. Russel Sage foundation. New York. Available from : <http://citeseer.ist.scripps.edu/>. Scientific literature digital library.
- Tinker, A. (1991). Safe Motherhood - from advocacy to action. Finance and Development. Volume 28, issue 4; page 18.
- UNFPA (2002). Maternal mortality update 2002. A Focus on Emergency Obstetric Care.
- UNICEF (2000). A situation analysis of children and women in Bhutan.
- Valente, TW. (2002). Evaluating health promotion programs. Keck School of medicine, Univesity of Southern California. Oxford University Press.
- Waterstone,M.et.al.(2001). Incidence and predictors of severe obstetric morbidity: Case- Control study/ commentary. British Medical Journal. (International edition); Volume 322, Issue 7294; page 1089.
- Weiss, CH. (1998). Evaluation- Methods for studying Programs and Policies, Second edition, Harvard University.
- Zahr, CA. Wardlaw.T. (2001). Maternal mortality at the end of a decade: Signs of progress? WHO Bulletin. Geneva. Available from : [www.who.int](http://www.who.int).

## **APPENDICES**

## APPENDIX I

### Structured questionnaire for interview

ID

Please mark  $\surd$  in  or fill in .....

Name.....

Date of birth (dd/mm/yy)  /  /       Age.....years.

Address.....

#### *General Background*

1. What is your religion?

- |                                       |  |
|---------------------------------------|--|
| <input type="checkbox"/> 1. Buddhism  | <input type="checkbox"/> 2. Hinduism             |
| <input type="checkbox"/> 3. Christian | <input type="checkbox"/> 4. Other (specify)..... |

2. What is your education level?

- |  |  |
|--|--|
| <input type="checkbox"/> 1. None                       | <input type="checkbox"/> 2. Primary Level ( $\leq$ VI) |
| <input type="checkbox"/> 3. Lower Secondary (VII-VIII) | <input type="checkbox"/> 4. Higher Secondary (IX-XII)  |
| <input type="checkbox"/> 5. College/University         | <input type="checkbox"/> 6. Non-formal                 |

3. What is your occupation?

- |   |   |
|---|---|
| <input type="checkbox"/> 1. House wife  | <input type="checkbox"/> 2. Government officer    |
| <input type="checkbox"/> 3. Business    | <input type="checkbox"/> 4. Farming               |
| <input type="checkbox"/> 5. Day laborer | <input type="checkbox"/> 6. Others (specify)..... |

4. What is your current marital status?

1. Single                       2. Married  
 3. Divorced                       4. Widowed

5. Do you have children?

1. No                       2. Yes (specify) .....persons

6. If married, what is your husband's education level?

1. None                       2. Primary school ( $\leq$  VI)  
 3. Lower Secondary (VII-VIII)     4. Higher Secondary (IX-XII)  
 5. University/college                       6. Other (specify).....

7. What is your husband's occupation?

1. Government officer     2. Day laborer  
 3. Farming                       4. Business  
 5. Others (specify).....

***Knowledge of five dangerous signs intervention***

8. Did you attend the education program?

1. If No, Why?.....     2. Yes

9. Have you ever heard of danger signs of pregnancy? (If No skip # 10 and 11)

1. No                       2. Yes

10. Where did you get this information?

- |  |   |
|--|---|
| <input type="checkbox"/> 1. from education program | <input type="checkbox"/> 2. Relatives/friends |
| <input type="checkbox"/> 3. From the Hospital      | <input type="checkbox"/> 4. Radio             |
| <input type="checkbox"/> 5. TV                     | <input type="checkbox"/> 6. Newspaper         |
| <input type="checkbox"/> 7. Others (specify).....  |   |

11. What are the danger signs of pregnancy? (Check all that apply, ask them to tell the condition)

- |  |  |
|--|--|
| <input type="checkbox"/> 1. Fever                | <input type="checkbox"/> 2. Headache with blurring of vision |
| <input type="checkbox"/> 3. Fits                 | <input type="checkbox"/> 4. Bleeding during Pregnancy        |
| <input type="checkbox"/> 5. Labor pain >12 hours | <input type="checkbox"/> 6. Wrong answer (specify).....      |

### Transportation

12. Do you have your own transportation?

- |                                |                               |
|--------------------------------|-------------------------------|
| <input type="checkbox"/> 1 Yes | <input type="checkbox"/> 2 No |
|--------------------------------|-------------------------------|

13. How do you go to hospital?

- |  |  |
|--|--|
| <input type="checkbox"/> 1 Walk        | <input type="checkbox"/> 2 Ambulance             |
| <input type="checkbox"/> 3 Own vehicle | <input type="checkbox"/> 4. Other (specify)..... |

14. How long does it take to reach the hospital?

- |   |
|---|
| <input type="checkbox"/> 1. Walking Hours...Minutes....       |
| <input type="checkbox"/> 2. By Vehicle Hours.....Minutes..... |



## APPENDIX II

### Monthly Hospital utilization for Delivery and treatment of complications of Pregnancy Year 2001 (January to December)

<b>Month</b>	<b>Paro</b>			<b>Punakha</b>		
	Normal delivery (N)	Compli- cations (N)	Total	Normal Delivery (N)	Complica- tions (N)	Total
	January	10	1	11	9	2
February	6	4	10	6	3	9
March	9	2	11	9	3	12
April	7	4	11	5	3	8
May	10	2	12	6	2	8
June	11	4	15	4	3	7
<b>Total (Jan-Jun)</b>	<b>53</b>	<b>17</b>	<b>70</b>	<b>39</b>	<b>16</b>	<b>55</b>
July	12	4	16	5	4	9
August	10	4	14	9	3	12
September	11	3	14	10	5	15
October	9	3	12	8	3	11
November	10	2	12	5	4	9
December	9	2		6	1	7
<b>Total (Jul-Dec)</b>	<b>61</b>	<b>18</b>	<b>79</b>	<b>43</b>	<b>20</b>	<b>63</b>

## Appendix II (Contd.)

## Year 2002 (January to December)

Month	Paro			Punakha		
	Normal delivery (N)	Compli- cations (N)	Total	Normal Delivery (N)	Complica- tions (N)	Total
	January	10	4	14	5	3
February	15	6	21	9	3	12
March	12	4	16	8	3	11
April	12	6	18	9	4	13
May	12	5	17	8	6	14
June	14	5	19	7	3	10
<b>Total (Jan-June)</b>	<b>75</b>	<b>30</b>	<b>105</b>	<b>46</b>	<b>22</b>	<b>68</b>
July	11	6	17	11	1	12
August	16	5	21	8	1	9
September	10	5	15	5	4	9
October	11	6	17	7	3	10
November	10	4	14	7	2	9
December	11	5	16	5	6	11
<b>Total (Jul-Dec)</b>	<b>69</b>	<b>31</b>	<b>100</b>	<b>43</b>	<b>17</b>	<b>60</b>

**Appendix II (contd.)**  
**Year 2003 (January to December)**

Month	Paro			Punakha		
	Normal delivery	Complications	Total	Normal Delivery	Complications	Total
	(N)	(N)		(N)	(N)	
January	14	8	22	10	2	12
February	14	4	18	9	4	14*
March	17	7	24	11	3	14
April	19	8	27	9	4	15**
May	10	4	14	9	2	12*
June	12	5	17	13	4	17
<b>Total (Jan-Jun)</b>	<b>86</b>	<b>36</b>	<b>122</b>	<b>61</b>	<b>19</b>	<b>84</b>
July	15	7	22	5	3	9*
August	19	5	24	11	3	14
September	12	7	19	6	4	10
October	11	7	18	10	4	14
November	12	3	15	9	1	11*
December	13	5	18	12	2	15*
<b>Total (Jul-Dec)</b>	<b>82</b>	<b>34</b>	<b>116</b>	<b>53</b>	<b>17</b>	<b>73</b>

## APPENDIX III

Frequency distribution of more than one known danger signs from the survey in  
Paro and Punakha.

Sl.No	Danger signs	Paro	Punakha
		Frequency (%)	Frequency (%)
1	Fever/Headache/ Fits/Bleeding/ Prolonged Labor	2 (1.3)	0
2	Fever/Headache/bleeding/ Prolonged Labor.	0	1(0.7)
3	Headache/Fits/ Prolonged Labor	3 (2.0)	0
4	Headache/Bleeding/ Prolonged labor	5 (3.4)	0
5	Fits/Bleeding/Prolonged Labor	3 (2.0)	0
6	Headache/Fits/Bleeding	4 (2.7)	0
7	Fever/Headache/Bleeding	0	4(2.7)
8	Bleeding/Prolonged Labor	33 (22.1)	0
9	Bleeding/Fits	13 (8.7)	0
10	Headache/Bleeding	15 (10.1)	0
11	Fits/Prolonged labor	5 (3.4)	0

## APPENDIX IV

Frequency distribution of other signs from the survey in Paro and Punakha.

Other signs	Paro	Other signs	Punakha
	Frequency (%)		Frequency (%)
Vomiting	12 (8.1)	Vomiting	2 (1.4)
Baby not moving	8 (5.4)	Baby not moving	2 (1.4)
Swelling	4 (2.7)	Swelling	2 (1.4)
Loss of appetite	1(0.7)	Loss of appetite	1(0.7)
Giddiness	3 (2.0)	Surgery	1(0.7)
Big baby	1(0.7)	Anemia	2 (1.4)
Constipation	1(0.7)		
Overdue	2 (1.3)		
Twins	1(0.7)		

## Biography

Dr. Pandup Tshering is a Bhutanese citizen. He was born in the year 1963. He completed his High school from Yangchenphug High school in Bhutan (1979), and then completed his university from St. Joseph's college in India (1982). He graduated as a medical doctor from Chittagong medical college, Bangladesh in 1989. He joined government service in Bhutan in 1990. Then he worked as a medical officer in different districts hospitals in Bhutan. In 1996 he completed general practionner course from Christian Medical College in Vellore, India. He worked as a general practioner in regional referral hospital in Mongar Bhutan from 1996 to 1999. In the year 2000 he joined the institute of Dermatology in Bangkok and obtained Diploma in dermatology in the year 2001.

He worked as District medical officer/Dermatologist in Paro district Hospital from 2000-till his joining the master's degree in Public Health

He also underwent WHO sponsored short course on Tuberculosis Control Program Management, (Nepal, 1998), Trained as facilitator for Integrated Management of childhood illnesses. (India,1999), Trained in Mid level management course for EPI, CDD and ARI. (Bhutan 1991), Diarrhoeal disease control program (Bangladesh,1993) Primary Health Care and Health management. (India 1996). Hospital Transformation using Appreciative inquiry Process (Bangladesh, 2001)

After completing his master's degree he will be working in the same post as District Medical officer of Paro hospital. He is an avid sportsman and likes outdoor sports like soccer, badminton and trekking in the mountains. He is also the secretary general of the Paro district badminton association since 2001. He is married and has two daughters.

