

**Proportional physical disabilities of women following child births  
in rural areas of delta region in Myanmar**

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A community-based survey was conducted in 5 delta townships to explore the situation of obstetrical physical disability in Myanmar. Three hundred and thirty three ever-married women of 15-59 years age group who have had at least one normal full term delivery were examined for birth related disability conditions and face-to-face interviews made. Forty three of them were again interviewed in-depth. Interviews were also made with 35 key informants. The findings indicated: prevalence of urethrocoele (22%), cystocoele (83%), cervical descent (22%), rectocoele (32%), perineal tear (32%) and enterocoele (14%); urethrocoele, cervical descent, rectocoele and enterocoele were significantly more prevalent among 30-44 age group ( $p < 0.01$ ); the conditions, except enterocoele (having association with 5-10 years of schooling;  $p < 0.05$ ), had no significant associations with education and social status of mothers; only 13% of the women sought for care for the conditions; about 55% of their deliveries were made with traditional birth attendants or other untrained accouchers; and this birth attendant utilization had no statistically significant associations with age, education or social status of the women. There were only 2 women suffering from vesico-vaginal fistulae. Our study findings call for attention to be paid to various kinds of physical disabilities that Myanmar rural women are suffering following births; and also for consideration to impart TBAs with safe and clean delivery skills.

## INTRODUCTION

Complications of pregnancy and childbirth are the leading causes of disability and death among women between the ages of 15-49 [1]. Over 18 million women each year endure chronic disabilities as a result of their pregnancy. Perineal trauma at the time of delivery can result in dyspareunia and perineal pain. Urinary incontinence, anal incontinence and uterovaginal prolapse are the major long term pelvic floor sequelae of childbirth [2]. Other consequences include chronic pelvic sepsis and pain, recurrent pelvic inflammatory disease, and infertility [3]. Pregnancy and labour is also associated with orthopaedic complications such as

separation of pubis symphysis, transient osteoporosis of the hip and osteonecrosis of the femoral neck which can cause serious disability [4]. Apart from these physical disabilities, childbirth is also associated with psychiatric problems most commonly maternity blues, postnatal depression and puerperal psychosis [5]. Moreover, their potential productivity is diminished, primarily due to death, malaria, anaemia and the consequences of obstructed labour - fistula and urinary incontinence [6]. Many of the maternal disabilities also jeopardize the survival and health of newborn infants.

In Myanmar there is virtually no community-based study on obstetrical

physical disability. Obstetrical physical disability arises out of poor socio-economic conditions and the physical disability that arises will further perpetuate low socio-economic status due to unemployment, chronic life difficulties, and poor health. Analyzing and understanding the situation of obstetrical physical disabilities among women can provide policy inputs for formulation of health policies for enhancing quality of maternal and child health care in rural areas of Myanmar.

This study was conducted with the objectives of identifying physical disability conditions following child birth among rural mothers and analyzing the socio-economic and demographic factors relating to the disability conditions.

## METHODOLOGY

### *Study type*

The study was a community-based survey using both quantitative and qualitative methods. Quantitative data was meant for comparing disability situation according to women's socio-economic and demographic factors. Data collection depended on both self-reported morbidity and observed morbidity. Qualitative data provided in-depth information on contextual factors relating to the disability situation.

### *Sample and sampling procedures*

The quantitative component recruited 361 ever-married women who have had at least one normal full term delivery either vaginally or by Caesarean section. They were of 15-59 years age group with difficulties in performing usual activities following childbirths. Women who were pregnant or who were seriously ill to participate in interviews were excluded.

This quantitative component used a modified EPI cluster sampling method: 30 clusters (village tracts) were randomly selected, and at least 14 eligible women

(participants for the survey) were selected randomly in each cluster.

Ayeyawady Division was chosen purposively. Ayeyawady Division is a delta area where transport and communication have markedly improved during the past decade. Five townships - Patheingyi, Hinthada, Wakema, Dedaye and Maubin - were randomly selected from the list of townships located in the Division.

In each township, three Rural Health Centers (RHCs) were selected randomly. The village where the RHC is stationed was taken as one cluster. Another cluster was chosen randomly among the villages where a RHC Sub-center is located in the jurisdiction of each of the RHCs. This made six clusters to be included in each township and thus gave thirty clusters for the whole study.

A list of women of 15-59 years age group meeting the criteria set was prepared with the local informants. Selection of at least 14 women was made from the list randomly in each cluster. The recruited mothers were examined for birth related disability conditions and were also interviewed face-to-face. Although it was expected to recruit 420 mothers, only 361 who met the set criteria could be recruited; among them, only 333 samples with acceptable quality were used for data analysis.

The qualitative component involved performing in-depth interviews (IDIs) with 6 mothers having physical disabilities following childbirths, and Key Informant Interviews (KIIs) with 1 TBA, 1 AMW and 1 Lady Health Visitor/Midwife in selected clusters. The Research Team decided the clusters where the qualitative component was to be included after arrival to the study township. There were 43 IDIs and 35 KIIs for the whole study.

### *Data analysis*

The statistical package of STATA8.1 was used for all analyses. We used Pearson chi-

square to assess significant differences in the prevalence of child delivery related disabilities among rural women of different age, educational and occupational groups. Qualitative data were analyzed using Atlas ti software.

During face-to-face interviews, eighteen questions with measurement scales ranging from 1-6 were asked to each of the sampled women to assess impact of their current health problem(s) on certain aspects of life. These health domains included: overall satisfaction with life; moods and feelings; sense of confidence; ability to wash oneself, use toilet, dress oneself, feed oneself, assist other members of one's family, sit or stand, carry things (e.g., a bucket of water), use a vehicle (e.g., a bus), move around and within one's house, move around one's neighbourhood; ability to relate to people in authority (e.g., government officials), neighbours, friends and relatives; ability to participate in family activities (e.g., eating together) and in community activities.

Each health domain (variable) was given a score of 1-6 according to expressions made by the interviewees. Thus for the total of all the 18 variables, the minimum score is 18 and the maximum score is 108. This range is subdivided into 3 categories of scores: score 18 for having no impact at all; scores 19-36 for having some impacts; and scores 37 and above for those with extreme impacts.

## RESULTS

### *Quantitative findings*

#### *Characteristics of study samples*

Fifty one percent of the study population came from the age group 30-44 years, 52% had had 5-10 years schooling and 58% were married at ages between 13-20 years (see Table 1). In rural areas, poor families are generally referred to as *let-loke-let-sar*. They are manual labourers who do not have a stable income most of the time. In our study, we used the two broad categories - manual labourers (representing *let-loke-let-*

*sar*) and others (i.e., relatively well-to-dos) - to identify occupational groups of our rural population. Table 1 indicates that only about a third of our study population falls into manual labourers.

Table 1. Characteristics of 333 women in Ayeyawady Division in 2004

Characteristics	No. of women <sup>a</sup>
<b>Age ( years)</b>	
15-29	78 (23)
30-44	168 (50)
45-59	87 (26)
<b>Education (years of schooling)</b>	
0-4	128 (38)
5-10	175 (53)
11-15	30 (9)
<b>Age at first marriage (years)<sup>b</sup></b>	
13-20	192 (58)
21-38	139 (42)
<b>Job category<sup>c</sup></b>	
Manual labourers ( <i>let-loke-let-sar</i> )	89 (28)
Others (relatively well-to-dos)	230 (72)

<sup>a</sup> Values in parentheses are percentages; due to rounding of the numbers, they may not total 100.

<sup>b</sup> The total number for this measure was 331. The total number for this measure was 319.

### *Prevalence of child delivery related disabilities*

Cystocoele (83%) was found to be highly prevalent among the 333 subjects included in the study. Other obstetric related disability conditions included urethrocoele (22%), cervical descent (22%), rectocoele (32%), enterocoele (14%) and perineal tear (32%). Sixty per cent and 51% of the cystocoeles and rectocoeles fell into moderate to large grades respectively; and 73% of the perineal tears were of either second or third degrees.

The four disability conditions (urethrocoele, cervical descent, rectocoele and enterocoele) were found to be more prevalent among 30-44 age group, and the distribution was statistically significant ( $p < 0.05$ ). Except for the enterocoele having statistically

Table 2. Percentage of disability conditions detected on vaginal examination of 333 women, according to different age, educational and occupational characteristics, in Ayeyawady Division in 2004

Women's characteristic	Disability condition present (%)					
	Cystocele (N=277)	Urethrocele* (N=74)*	Cervical descent** (N=213)	Rectocele** (N=105)	Perineal tear (N=310)	Enterocoele (N=46)*
<b>Age group (years)</b>						
15-29	24	36	29	35	25	28
30-44	51	47	51	49	50	61
45-59	25	16	20	16	25	11
	Cystocele (N=277)	Urethrocele (N=73)	Cervical descent (N=212)	Rectocele (N=104)	Perineal tear (N=309)	Enterocoele* (N=46)
<b>Educational group (years of schooling)</b>						
0-4	36	30	35	36	37	26
5-10	53	58	56	52	54	57
11-15	10	12	9	11	9	17
	Cystocele (N=276)	Urethrocele (N=73)	Cervical descent (N=211)	Rectocele (N=103)	Perineal tear (N=308)	Enterocoele (N=46)
<b>Occupational group</b>						
Manual labourer (N=96)	29	26	28	27	30	26
Others (N=236)	71	74	72	73	70	74

\* Distributions of a disability condition between different sub-groups of women's characteristics significantly different at  $p < 0.05$ ; \*\*significantly different at  $p < 0.01$ . Percentages may not total 100 because of rounding.

significant association ( $p < 0.05$ ) with education of women, the other disability conditions have no statistically significant associations with the education and occupation of the subjects studied. See Table 2.

There were 2 study subjects having vesico-vaginal fistulae. Detailed descriptions of these two cases are described in later part of this report.

#### Seeking care for disability conditions

Among these women with child delivery related disability conditions, only 13% sought care for the conditions they were suffering. Seeking care has no statistically significant associations with women's age, education and occupation.

#### Impact of the disability conditions on daily activities

About 76% of the interviewees said that their disability conditions were having some impacts on their daily activities. See Table 3 for the results.

Table 3. Scores of 331 women for impact on certain aspects of life due to disability condition and distress that ensues, in Ayeyawady Division in 2004

Scores	Women getting the scores <sup>a</sup>
<i>Impact scores</i>	
18 (no impact)	61 (18)
19-36 (some impact)	250 (76)
37+ (severe impact)	20 (6)

<sup>a</sup> The total number for this measure was 276; values in parentheses are percentages

Except for statistically significant association between expressed impact and education ( $p < 0.05$ ), age and occupational group have no statistically significant relationships to the impact on daily activities (see Table 4).

#### Birth attendants

The women included in our study had experienced a total of 1469 deliveries. Out of these deliveries, 55% were made by traditional birth attendants (TBAs); 25% by midwives and Lady Health Visitors; 10% by auxiliary midwives; and 10% at hospitals.

Table 4. Percentage of 331 women in the three categories of impact scores, according to different age, educational and occupational characteristics, in Ayeyawady Division in 2004

Women's characteristic	Women getting impact scores (%)		
	18 no impact (N=61)	19-36 some impact (N=250)	37+ severe impact (N=20)
Age group (years)			
15-29	28	23	15
30-44	51	50	60
45-59	21	27	25
Educational group (years of schooling)*			
0-4	43	38	35
5-10	39	55	60
11-15	18	7	5
Occupational group			
Manual labourer	25	31	15
Others	75	69	85

\*Distributions of impact scores between different sub-groups of women's characteristics significantly different at  $p < 0.05$

Most of the deliveries (88%) took place at homes; 10% at hospitals; and 2% at health centers. This birth attendant utilization has no significant associations with age, education or occupation of the mothers.

### Qualitative findings

Health staff claimed that local situations have changed in birth attendant utilization patterns; local mothers were said to be utilizing trained staff (midwives) more. However, traditional birth attendants (TBAs) said they were the key persons who were making deliveries. The reasons for continued popularity of TBAs included: local poor mothers could not afford to make their deliveries with midwives; TBAs were always easily accessible in times of deliveries; TBAs stayed with mothers throughout the puerperial period, performing some household chores for the mothers. However, TBAs admitted that for the first child, local mothers preferred

delivering with a midwife; and in times of difficult labours, a TBA and a midwife performed the delivery together.

Answers given by mothers were also more or less reflect the information received from health staff and TBAs.

*“The TBA stays closer to us ... she is easily accessible”*

(A 50-year old woman of 4 children, with cervical descent)

*“Delivering with TBAs is our mi-yoe-pha-lar (traditional practices of ancestors) ... All my children were delivered by a TBA”*

(A 31-year old woman of 2 children, with cervical descent)

*“It is safe to deliver with a midwife. All my children were delivered with a midwife”*

(A 49-year old woman of 4 children, with cervical descent)

One of the practices performed by a TBA during delivering a baby was that the TBA rubbed the vaginal canal of the mother and the presenting part of the baby with oil to enhance smooth delivery. Another practice was that the TBA cut the perineum of the mother with a sharp instrument (like performing an episiotomy), again to enhance smooth delivery. However, no stitching was performed. Mothers were also happy with the situation, because they would not encounter difficulties in future labours.

Reasons for not seeking treatment for the disability conditions included feeling ashamed to go to health staff or to any other person and considering the condition was not so serious. Generally they reported the disability conditions to a very close person, and the feedback they received was that such conditions were natural for women after deliveries. Such feedbacks were meant for urethrocoeles, cystocoeles and rectocoeles. However, cervical descents and perineal tears were considered conditions

needing repairs. Among these mothers, unaffordability was the main reason for not seeking treatment for the disability conditions they were suffering.

*“I was told that it would cost about Kyat 30,000 if I take surgical treatment at the hospital ... I cannot afford for that”*

(A 26-year old mother of 1 child delivered with a TBA, and having a cervical descent)

#### *Cases with vesico-vaginal fistulae*

##### Case 1

Ma Sint (not her real name) is a 38-year old mother from a *let-loke-let-sar* (manual labourer) family. She got married when she was 19 years old and was 5 times pregnant. She has 4 children alive, all delivered by a TBA. Her fifth child was born dead. During delivery of the last child a TBA was called first, but was referred to the hospital for prolonged labour. According to Ma Sint, she started suffering from urine leakage 14 days after her last dead baby was delivered at the hospital. On further investigation, it was found out that she had a Caesarean hysterectomy for ruptured uterus 7 months prior to the interview date. She has a small cystocele and a second degree perineal tear with vesico-vaginal fistula on the anterior vaginal wall.

She is still staying with her husband of first marriage. She considers her health state good; has no serious social problems; and is optimistic about her future.

*“I do not have any problems with my husband. Some of my friends make joke on me saying that I am having urinary smell. This situation affects my income because I cannot work as before to earn our family’s living. I went back to the hospital where I got this injury ... they told me to go to Yangon for tretment ... my family cannot afford for the expenses”*

##### Case 2

Ma Myint (not her real name) is a 35-year old mother from a relatively well-to-do family. She got married when she was 25 years old and was 6 times pregnant. She had abortion with her fifth pregnancy. She has 5 children alive out of which 4 were delivered by a traditional birth attendant at home. During delivery of the last child she was referred to the hospital for prolonged labour. According to Ma Myint, she started suffering from urine leakage 10 days after her last baby was delivered at the hospital by Caeserean section. She has a moderate cystocele, rectocele and second degree perineal tear with vesico-vaginal fistula on the anterior vaginal wall.

She is still staying with her husband of first marriage. She considers her health state good; has no serious social problems; and is optimistic about her future.

*Note:* Ma Myint accepted the referral made by the survey team to Yangon General Hospital and underwent surgical repair.

## **DISCUSSION AND CONCLUSIONS**

There was formerly no data available on obstetrics-related disabilities for rural women in Myanmar. Our findings indicated that 83% were having cystocele, 22% with urethrocele, 22% with cervical descent, 32% with rectocele, 32% with perineal tears and 14% with enterocele. The higher prevalence of four disability conditions (cystocele, urethrocele, cervical descent, and rectocele) among 30-44 age group has more biological meaning than social meaning, as these conditions can be expected to become more prevalent in higher age and higher parity groups. Vaginal delivery is the commonest cause of prolapse as it traumatizes the pelvic floor muscles, ligaments and fascia and causes pudental nerve damage, resulting also in urinary and faecal incontinence in addition to prolapse [7].

Only 13% of women with disabilities sought care. Many women suffering from prolapse do not seek medical advice even in developed countries; this makes difficult to define the incidence of prolapse in the female population. Clinical examination does not necessarily correlate with symptoms and prolapse is frequently an asymptomatic incidental finding [8]. About 50% of parous women have prolapse, which is symptomatic in 20%[7].

About 75% of the women admitted that their disabilities were having some impacts on certain aspects of their lives. Our study findings indicate that majority of rural women, irrespective of their age, education and occupation, tolerated their disability conditions.

Fifty five percent of the birth deliveries made by rural women in our study were attended by TBAs and other untrained accouchers. This finding highlights the important roles TBAs are still playing in rural areas.

In our study, we discovered only two women with vesico-vaginal fistula. In developing countries over 90% of fistulae are of obstetric origin and are due to pressure necrosis from prolonged obstructed labour [9]. The fact that the patients were delivered by Caesarean section does not automatically exclude pressure necrosis as the damage may have occurred as a result of prolonged before the Caesarean section. Obstetric fistulae are more common in young primigravid women but neither age nor gravidity is exclusive [10].

Our study findings call for attention to be paid to various kinds of physical disabilities that Myanmar rural women are suffering following births; and also for consideration to impart TBAs with safe and clean delivery skills. The message that repeated stretching and damage to the uterine and vaginal muscles lead to genital prolapses should be informed to TBAs, auxiliary midwives and midwives through safe motherhood training programmes, and through these birth

attendants to pregnant mothers and community. Appropriate strategies that have reduced maternal mortality and morbidity should be tried. Studies have indicated that maternal mortality can be lowered by introducing trained TBAs and ensuring their regular in-service training[11]; and that the problems associated with obstructed labour can be reduced by using maternity waiting homes where “at risk” women can reside during the later weeks of pregnancy in close proximity to expert assistance[12,13].

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