

BIDAN DI DESA REGISTER

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INTRODUCTION

In 1996, a Bidan di desa Register was developed by MotherCare/Indonesia with technical assistance from MotherCare/Washington and a consultant from the London School of Hygiene and Tropical Medicine (Carine Ronsmans). See Appendix A for copy of Bidan id Desa Register and instructions for use. This register complements the information collected in the existing COHORT register by collecting information about delivery and postpartum care.

The Bidan di desa provide in the community, specifically:

- maternal, fetal or neonatal deaths
- complications of mother in antenatal, intrapartum, or postpartum periods
- neonatal complications
- place of delivery and attendants at a birth for all deliveries attended by the Bdd or from whom she provides postpartum care
- postpartum care Bdd provides, including number and timing of visits
- consumption of iron postpartum
- family planning method chosen at 6 weeks postpartum

Only women for whom the Bidan di desa provided some care during their pregnancy, labor and delivery, or postpartum period are entered in the register. Because the Bidan di desa is ultimately expected to conduct postpartum visits on all women who deliver in her community, this register has the potential to capture information about all deliveries, and, as a result, serve as a source of community-based information. The data from the Bidan di desa Register will augment that captured in the revised facility registers.

The register was introduced to the Bidan di desa in the Basic Life Saving Skills in-service training which began in October 1996. As a result, the number of Bidan di desa who report data via this register increased as the Bidan di desa completed training. As of March 1999, 52% of the Bidan di desa in the three Mother Care districts have received the LSS training (Bdd survey 1999). HSS is the district with most Bdd trained, estimated at 93% in 1999. As a result of this "rolling" enrollment of Bidan di desa who report information in the register, full coverage has not been achieved in all three MotherCare districts at this time. However, close to full coverage should have been achieved in HSS by April 1998 when the last training class for HSS Bidan di desa was completed.

This report provides a description of the data collected up to end of June 1999 for all Bidan di desa who have entered data. More detailed descriptive data will be provided for HSS for the 12 months (April 1998- March 1999) to document coverage of services by Bidan di desa for a time period and in a district with the most complete reporting. This period also coincides with recall period in the post survey in which women were interviewed about maternal care services they received.

Entries in Bidan di desa Register

The entries in the Bidan di desa Register from its initiation (October 1996) up to and including June 1999 are, as expected, dominated by entries from the Bidan di desa from HSS (Table 1). The implementation plan for the Basic LSS training for Bidan di desa was designed to complete the training of all the Bidan di desa from HSS before training began in the Banjar and Barito-Kuala Districts.

Entries by Bidan di desa from Barito-Kuala began in January 1998 and by Bidan di desa from Banjar District began in April 1998. By the second quarter of 1999 (April-June), 53% of the entries and

67% of the Bidan di desa reporting came from HSS. This is consistent with the fact that 48% of the Bidan di desa in the three districts who were introduced to the register in the Basic LSS training came from HSS. However, only 27% of the Bidan di desa (*March 1999 Bidan di desa Survey*) and approximately 20% of the population included in the three MotherCare districts were from HSS. Because of this known bias towards entries from HSS at this point, no conclusions about coverage of services in the three MotherCare districts or about variations in coverage of services among the three districts can be made from these data.

Table 2 presents the distribution of entries per Bidan id desa over the 11 quarters included in this analysis. The mean number of entries per Bidan di desa in the register is 6.1. The mean number of entries stabilized at 4-5 by the first quarter of 1998, and rose to about 10 by the beginning of 1999.

Most Bidan di desa consistently report each quarter once they begin. However, in each quarter, an increasing number of Bidan who reported in a previous quarters, did not make an entry in the index quarter. This results in an estimated “non-response rate” of 9% in the first quarter of 1998 that increases to 48% in second quarter of 1999. However, this non-response rate is recognized as overestimated. The overall number of Bidan di desa did decline over time; of the 538 who responded to the April 1997 Bidan di desa survey, 100 (17%) Bidan di desa did not respond to the March 1999 Survey, despite attempts in both survey to minimize non-response. What proportion of the “non-responders” in the Bidan di desa register in a quarter is due to the Bidan di desa no longer in the area is unknown. However, 72 (28%) of the 261 Bidan di desa who contributed entries to the register did not report for the last two quarters for which data were collected (January-March and April-June 1999).

Place of birth and attendants

Most (92%) of the entries reported in the Bidan di desa register were home deliveries. Five percent of the entries were hospital or puskesmas (health center) deliveries with about half of these reported as women who began labor at home and were transferred to a facility for delivery. The Bidan di desa attended over 70% of the deliveries reported. In about half of these, the TBA was also present. The TBA was the sole attendant in only 11% of the entries. A doctor attended few deliveries (4.5%), most (80%) of which were facility deliveries.

When the entries from HSS in the period from April 1998 until March 1999 are analyzed (Table 4), the situation is quite similar. Almost 91% of the births occurred at home and Bdd are present at over 70% of them. Generally if more than one attendant is reported, the attendant with highest credentials is the person who conducted the delivery (Table 5).

Postpartum Visits

Over 60% of the women reported in the register received all of the postpartum visits defined in the Postpartum Care Program (within 6 hours, at 3 days, at 2 weeks and at 6 weeks). Over 40% received an additional visit within 7-12 hours of delivery.

When the entries from HSS in the period from April 1998 until March 1999 are analyzed, the findings are similar. Over 65% of the women received a visit within 6 hours of birth and situation is quite similar. Seventy percent of the home births received a visit within 6 hours of birth and an additional 18% received a visit within 12 hours of birth (Table 7).

Postpartum Iron Folate Consumption and Family Planning Methods Choice

Consumption of iron folate was determined at the 6 week postpartum visit by the Bidan di desa counting the number of iron pills the woman had left from the 40 pills she was given. The mean number consumed was 35.3, with over half of the women consuming at least 40 tablets and another 30% consuming 30-39 tablets (Table 8). Less than 3% of the women seen for postpartum visits did not consume any iron folate tablets. When the entries from HSS in the period from April 1998 until March 1999 are analyzed, the mean number of iron folate tablets consumed was slightly higher (36.1), and over 65% of the women consumed at least 40 tablets. Again about 3% reported no iron folate tablets consumed.

Over 71% of the women selected a hormonal method of contraception with the majority choosing the pill (Table 8). About 3% of the women had not chosen a method, and 13% were unknown. When the entries from HSS in the period from April 1998 until March 1999 are analyzed, over 75% of the women had chosen hormonal method of contraception with the majority choosing the pill. About 3% of the women had not chosen a method, and 9% were unknown.

Coverage of Services by Bdd from HSS April 1998-March 1999

Bidan di desa reported attending 1,353 births during this period in the Bidan di desa register. This is 25% of the Indonesian Ministry of Health estimate of 5,374 births in HSS in 1998. This estimate is lower than the estimate obtained from the 1999-community survey, in which 47% of the women from HSS who delivered in the past year reported that a Bidan di desa was present at her delivery.

In this same time period, Bidan di desa reported providing postpartum visit in the first day after delivery to 1,591 women or 30% of the estimated number of women with births. This estimate is much lower than the estimate obtained from the 1999-community survey, in which 70% of the women from HSS who delivered in the past year reported that a Bidan di desa visited them within one day of delivery.

Mortality and Complications

Maternal and perinatal/neonatal deaths reported in the Bidan di desa Register for the three districts for the entire reporting period and for HSS for a 12 month period can be found in Table 9. These data are descriptive only. Because these data do not capture all of the births during these time periods and, most likely, are an unrepresentative subset of the all the births, the calculated rates and ratios can not be considered as the rates or ratios for the population of the three districts or of HSS alone.

The maternal and newborn complications reported in the Bdd register are presented in Table 10. Few women had more than one complication reported in each of the time periods (antenatal, labor and delivery, and postpartum) and few babies had more than one complication reported. The high number of reported cases of high fever /infection during labor and delivery and the low number reported in the postpartum period is unexpected and may represent over-reporting error during labor and delivery.

Table 1 Number of Bidan di desa (Bdd) reporting and number of entries per quarter by district,
Bidan di desa Register, October 1996-June 1999

REPORTING QUARTER	TOTAL		ISS		Barito-Kuala		Banjar	
	NO. OF BDD REPORTING	NO. OF ENTRIES	NO. OF BDD REPORTING	NO. OF ENTRIES	NO. OF BDD REPORTING	NO. OF ENTRIES	NO. OF BDD REPORTING	NO. OF ENTRIES
1996								
OCT-DEC	8	18	8	18				
1997								
JAN-MARCH	30	149	30	149				
APRIL-JUNE	56	284	56	284				
JULY-SEPT	69	340	69	340				
OCT-DEC	88	378	88	378				
1998								
JAN-MARCH	109	474	106	470	3	4		
APRIL-JUNE	130	645	98	476	30	160	2	9
JULY-SEPT	170	868	99	456	45	242	26	170
OCT-DEC	186	929	106	445	48	236	32	248
1999								
JAN-MARCH	158	1518	69	410	31	303	58	805
APRIL-JUNE	135	1352	36	245	48	473	51	634
TOTAL	1139	6955	765	3671	205	1418	169	1866

Table 2 Number of entries per Bidan di desa by quarter, Bidan di desa Register October 1996-June 1999

Reporting Quarter	1996	1997				1998					
	1	2	3	4	5	6	7	8	9	10	11
# of entries/Bdd	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN
0		0	3	7	8	11	27	37	34		
1	3	4	6	7	16	19	19	14	23	10	9
2	2	5	8	10	15	18	24	18	27	16	10
3	1	4	13	10	10	13	18	28	30	21	7
4	2	4	6	12	13	16	16	22	23	13	21
5		3	7	13	11	11	13	36	24	8	5
6		3	2	3	5	11	7	12	14	17	15
7		1	6	2	6	6	10	14	13	7	8
8			2	1	1	2	5	8	6	11	9
9			1	2	5	2	6	3	4	4	1
10		2	1	3	2	7	4	4	5	7	7
11		1	2	3	1	1	2	2	4	2	1
12		3		1	2	1	2		2	3	2
13						2		3	1	3	
14				1			1	2	4	1	7
15					1			2	2	6	2
16							1		1	3	4
17								1		1	2
18			1							4	6
19									2	1	2
20									1	1	4
Other			35=1	23=1			30=1 43=1	29=1		21=5 22=3 24=2 30=2 37=1 38=1 39=1 42=1 43=1 55=1 66=1	22=3 24=2 26=1 27=1 30=1 34=1 35=1 38=1 42=1 63=1
Total	18	143	284	340	378	474	645	868	929	1518	1352
Mean/ Bdd	2.3	5.0	5.1	4.9	4.3	4.3	5.0	5.1	5.0	9.6	10.0
#. Bdd reporting	8	30	56	69	88	109	130	170	186	158	135
Expected No. Bdd*	8	30	59	76	96	120	155	209	219	255	261

* Expected number of Bdd estimated based on the assumption that Bdd who submitted data from a previous quarter should be reporting in all subsequent quarters.

Present	Home %	Home and PSK/Hosp %	Hospital %	Puskemas %	Missing %	Total %
Bdd alone	37.3	0.1		0.1	0.3	37.8
TBA & BDD	33.6				0.2	10.7
TBA alone	10.5				0.1	33.9
BIDAN alone	6.2		0.6	0.1	0.1	6.9
DOC& Bdd OR BIDAN	0.7	1.8	1.7	0.3	0.1	4.5
TBA&BIDAN	1.9					1.9
BDD& BIDAN	1.4	0.1			0.1	1.6
TBA&BDD&BIDAN	0.5	0.3	0.1			0.9
Self/Family alone	.2					0.2
Missing					1.5	1.5
Total (N=6955)	92.3	2.3	2.4	0.5	2.5	100

	Home %	Home & Facility %	Hospital or Puskesmas %	Missing %	Total %
Bdd alone	40.1		0.1	0.7	40.9
Bdd & TBA	30.7			0.7	31.4
TBA alone	9.1			0.3	9.5
Bidan alone or with Bdd/TBA	10.1	0.7	0.7	0.5	11.8
Doctor + others	0.8	1.6	2.7	0.2	5.3
Missing	.1			1.2	1.2
Total (N=1787)	90.8	2.3	3.4	3.6	100

Table 5 PERSON NAMED AS "DELIVERER" BY PRESENCE OF TBA, BIDAN DI DESA, BIDAN AND DOCTOR
Bidan di desa Register, HSS April 1998-March1999 (missing=31)

Deliverer	N	Sole att %	Doc+oth %	Bdd+TBA%	TBA+Bid %	Bid+Bdd %	TBA/Bdd %
TBA	266	63	0	35	2		
Bdd	1232	59	0.6	38		1.8	0.6
Bidan	178	67	2		12	12	6
Doctor	80		100				
TOTAL	1756						

TABLE 6 POSTPARTUM VISITS, Bidan di desa Register		
	HSS, Barito-Kuala, Banjar 10/96-6/99 (%)	HSS 4/98-3/99 (%)
N	6955	1787
FIRST 6 HOUR, 7-12 HOUR, 3 DAY, 2 WEEK, 6 WEEK	42.5	43.7
FIRST 6 HOUR, 3 DAY, 2 WEEK, 6 WEEK	18.4	24.7
7-12 HOUR, 3 DAY, 2 WEEK, 6 WEEK	19.9	16.8
3 DAY, 2 WEEK, 6 WEEK	6.3	5.1
2 WEEK, 6 WEEK,	2.4	2.3
Other combinations	9.6	9
NO VISITS	0.7	0.8
MISSING	0.2	0.1
% WITH VISITS IN 1 ST DAY, 3 DAY, 2 WK AND 6 wk	80.8	85.2
% WITH NO VISIT DAY 1 BUT WITH OTHERS	8.7	7.4

TABLE 7 POSTPARTUM VISITS BY PLACE OF BIRTH, Bidan di desa Register, HSS 4/98-3/99HSS

	Home (%)	Facility (%)	Missing (%)
N	1612	97	42
First 6 hour, 7-12 hours, 3 day, 2 week, 6 week	46	15	33
First 6 hour, 3 day, 2 week, 6 week	24	24	40
7-12 hour, 3 day, 2 week, 6 week	18	9	5
3 day, 2 week, 6 week	4	25	7
2 week, 6 week,	1	19	7
Other combinations	6	8	8
No visits	1	0	0

TABLE 8 POSTPARTUM IRON CONSUMPTION AND FAMILY PLANNING METHOD CHOICE AT 6 WEEKS POSTPARTUM VISIT Bidan di desa Register

	HSS, Barito-Kuala, Banjar 10/96-6/99 (%)	HSS 4/98-3/99 (%)
Number with PP visits (N)	6815	1751
Postpartum iron consumption		
Unknown	1.6	1.9
None	2.4	2.9
1-29 tablets	8.9	7.0
30-39 tablets	30.4	20.4
40 tablets	55.4	66.5
More than 40 tablets	1.3	1.1
Mean number (SD) among known consumption	± 9.72	± 10.7
Family planning methods		
Unknown	13.4	9.2
No method chosen	3.2	2.9
Oral contraceptives	68.5	74.4
Injectable	2.8	0.5
Norplant	0.4	0.2
Vaginal tablets	7.9	12.6
Lactational amenorhea method	3.3	0.1
Other modern methods (including sterilization)	0.5	0.3

TABLE 9 Maternal and Perinatal Mortality Bidan di desa Register				
	HSS, Barito-Kuala, Banjar 10/96-6/99		HSS 4/98-3/99	
Women with info about attendants at delivery (Births)	6849		1765	
Stillbirths	141		33	
Live Births	6708		1732	
Fetal & Neonatal outcomes				
Early neonatal deaths	74		24	
Late neonatal deaths	7		2	
	Number	Rate/Ratio	Number	Rate/Ratio
Perinatal =stillbirths + early neonatal deaths (Rate per births)	215	31/1000	57	32/1000
Neonatal deaths (Rate per live births)	81	12/1000	26)	15/1000
Maternal deaths (Ratio per live births)	6	89/100,000	2	115/100,000

TABLE 10 Maternal and Neonatal Reported Complications< Bidan di desa Register								
	HSS, Barito-Kuala, Banjar 10/96-6/99				HSS 4/98-3/99			
	ANC*	L &D*	PP*	NB*	ANC	L &D	PP	NB
MATERNAL								
Vaginal Bleeding	29	71	89		7	16	18	41
Retained placenta			62				6	6
Inverted uterus			2				1	1
Uterine atony			4					
Vaginal/cervical lacerations			3					
Breech presentation	28	20			6	1		13
Transverse lie	7	5			2	2		8
Prolonged first stage		50				10		10
Prolonged second stage		59				13		13
Previous C-section	23				12			12
Previous pregnancy complication	9				2			
Hgb <8gm% (Anemia)	86	7	63		18	1	5	24
Pre-eclampsia/hypertension(< 140/90)	73	55	17		9	10	3	22
Eclampsia	10	9	7		5	3	3	11
Preterm labor/delivery		45				17		17
Premature rupture of membranes		37				6		6
High fever/severe infection	16	147	4		4	37		12
Fetal distress		9				5		5
Multiple gestation	49	51			13	12		13
Size date discrepancy	20				3			3
Estimated fetal weight >4000gms		9						
NEONATAL								
5 min Apgar <6				188				63
Asphyxia				83				8
<2500 gm				62				5
Congenital abnormality				6				1
Neonatal tetanus				20				2
*ANC antenatal L&D labor and delivery PP postpartum NB neonatal								