

carried the Mother-Friendly Hospital (MFH) or GSI Hospital designation. While all DH staff could point out the certificate attesting to the hospital's MFH/GSI Hospital status, none of the team of health professionals that we met at these facilities could tell us what this meant in real terms.

The District Hospitals that we visited are clearly underutilized, particularly for maternal health services and obstetrical emergencies. Tracking utilization rates of district hospital EOC services is another potentially useful indicator of access to care. A study of use of hospital data for Safe Motherhood programmes in South Kalimantan suggests that

*"in this setting with low utilization rates, general rates of utilization of EOC facilities seem to be as satisfactory an indicator of relative access to EOC as more elaborate indicators specifying the reasons for admission. The inequalities in access to care revealed by the various indicators of use of EOC services may prove to be a more powerful stimulus for change than the widely reported and highly inaccurate accounts of the high levels of maternal mortality."*⁴⁴

The DH acts as the site for in-service or refresher training for the BDD and for orientation visits by the *Dukun*. We were able to speak with a few Bidans and *Dukuns* who had taken part in these programmes. All said that they found the experience interesting and helpful but there was no structure to this time spent at the DH. For the BDD, it entailed spending two days working alongside the hospital Bidans and taking advantage of learning opportunities as they presented themselves. Occasionally, they were able to perform a procedure or practice a skill that they had not been able to use recently. The BDD that we met had only been able to take advantage of this opportunity for two days once a year and, since these training hospitals only deliver two or three babies per day on average, the learning opportunities are clearly limited. The *Dukun* did little more than observe the happenings on the ward and in the delivery room and had staff point out to her the kind of problem cases that should be referred to the hospital should she encounter them in her practice.

5.2.2.6 Puskesmas Services

The *Puskesmas*, or sub-district community health centre, serves a population of about 30,000. There are two kinds of *Puskesmas* – *Puskesmas* with beds and those without. The variety without beds generally acts as a public outpatient treatment facility, is rarely open after mid-day, and is definitely not likely to be either open or prepared to deal with an obstetric emergency outside of clinic hours. This centre is usually staffed by a Bidan or nurse and a general practitioner who provide preventative and curative services related to 18 different health programmes including ANC and family planning. These *Puskesmas* have been characterized as under-burdened and are generally bypassed by patients seeking emergency services. Should a critically ill patient appear at this type of facility, the staff are more likely to simply send the patient on to the next level of care than to attempt to administer first aid or try to prepare the patient for transfer. When we presented a hypothetical case of a woman presenting with post-partum hemorrhage to staff at two of these centres, none felt it was appropriate to give oxytocic drugs or attempt bimanual

⁴⁴ Ronsmans C. *et. al.* A study of use of hospital data for Safe Motherhood programmes in South Kalimantan. *Trop Med Int Health*, 4(7):514-21 1999.

massage of the uterus in an attempt to stop the bleeding. The treatment of choice was to start an IV and send the patient on to the next facility, even if it was more than an hour away.

The *Puskesmas* with beds are usually located in more remote areas and ideally should be staffed and equipped to provide basic essential obstetrical and neonatal care (BEOC/PONED) twenty-four hours per day. A Bidan or nurse and a GP, who are not always trained to deliver BEOC/PONED, staff these centres. Those who have been trained are reluctant to attempt procedures such as manual removal of placenta when a case requiring this procedure presents to them very rarely. UNICEF has funded BEOC/PONED/LSS training of some *Puskesmas* staff in all three provinces early in the life of the project. They also funded education for *Puskesmas* Bidans on the administration of the MCH programme and on how to supervise *Bidan di Desa*.

5.2.2.7 Training Programmes for Service Providers

The Ministry of Health's education and training programmes on maternal and neonatal health suffer from the same problems as similar programmes the evaluation team has observed elsewhere in the developing world: they focus on quantity (numbers trained) versus quality, tend to be didactic with little use of effective adult learning techniques, and most are not competency based. Clinical settings are rarely able to provide students with sufficient hands-on experience to give them confidence in newly taught skills.

We comment further on specific training programmes in the next section.

5.2.2.8 Village Midwives (Bidan Di Desa)

A number of critical issues regarding the role, training, competence, support and sustainability of the *Bidan di Desa* placement policy became clear to us in the course of this evaluation and are reviewed in this section.

Role of the Bidan di Desa

By the end of 1999, the MOH *Bidan di Desa* programme is estimated to have placed 54,120 midwives in villages throughout Indonesia. This evaluation recognizes that the Village Midwife or *Bidan di Desa* (BDD) is the key agent in the Safe Motherhood program. She is the first contact for the community with the health services system, not only for Maternal Health, but also for most other health problems in the village. Other health and development programmes have recognized her unique position, with the result that the BDD had been given responsibility at the village level for a diverse set of programmes including Family Planning, Nutrition, Child Welfare and Immunization, to name just a few. From our interviews, record reviews and also from other studies, we have found that the usual duties of the BDD are to:

- Provide Health Services – antenatal care, delivery care, postnatal care, family planning services, well-baby health examination, immunization and treat general illnesses;
- Provide Health Education – individual and group education to community members and to kaders;
- 'Socialize' all health related programs and motivate the community to participate;
- Supervise TBAs;
- Participate in *Posyandu* activities, village meetings and other village activities;

- Maintain record (registers) on pregnant women until the postpartum period, on babies, on under five children and on couples eligible to use family planning;
- Make monthly reports;
- Attend weekly *Puskesmas* meetings; and
- Share on-call duty at the *Puskesmas* with beds and/or District Hospital about once a month.

The Ministry of Health has recognized that the BDDs are overburdened and that they are not well prepared for all these responsibilities, but has not come to a solution for this problem.

Training and Competency Issues

To be able to place such a large number of midwives in such a short time, nearly 52,000 new midwives were recruited and educated between 1990 and 1999. Young women who had graduated from junior high school entered a three-year nursing program followed by a one-year "crash course" in midwifery skills. According to the leaders of the Indonesian Midwives Association (IBI), because of the need to train so many so quickly, the classes were overburdened and opportunities for practice were minimal. Graduates were therefore not ready for practice and had not gained the skills needed to perform as the frontline health worker in the village. Recognition of the deficiencies of the crash program, as well as pressure from professional groups such as IBI, resulted in the closing of the programme in 1999. The standard of training will now once again be the three-year basic "high school" nursing program followed by three years of midwifery training. To ensure qualified midwife graduates, sixty-two "D3" (three year after high school) midwifery schools have recently been opened throughout Indonesia. Graduates of the one-year training programme returning from village postings will be accepted back into the D3 course with credit for one semester's work for their previous experience. Some of these schools have public funding while others are privately run. The public D3 school costs Rp. 1.5 million per semester, or Rp. 9 million for the full three year program and Rp. 7.5 million for the returning BDD⁴⁵. The cost at private facilities will be more but the exact figure was not available to us. IBI expects that they and the GOI will be able to offer a limited number of scholarships to BDD returning to school.

The more immediate response to the recognition that the BDD was not ready or able to provide the services expected of them, was the attempt to upgrade skills through a number of in-service or refresher training courses. These courses addressed a large number of areas including:

- proper handling of obstetric emergencies (Life Saving Skills - LSS and Standard Procedures - PROTAP);
- improved maternal and neonatal health care (Integrated Services on Maternal and Neonatal Health);
- improved communication and counselling skills for midwives (Communication and Counselling Skills Training for *Bidan di Desa*, Mother's Awareness Group facilitation workshops);
- family planning counselling and provision of services;
- nutrition issues;
- administrative training to be able to complete all reports and records;—

⁴⁵ Approximately CAD \$1,800 to \$2,200.

- supervision of BDD by supervising Bidans from *Puskemas* and district levels, and supervision of TBAs by BDD; and
- periodic refresher training.

UNICEF supported large-scale training efforts for the BDD in all three CIDA-funded provinces, particularly in 1997 and 1998. The need to fund LSS training was anticipated in the contribution agreement and was included in the original project design. However, there does not seem to have been any overall plan for support to training programmes in any of the project provinces. Apart from the evaluation of the LSS training mentioned below, there has not been any systematic review of the results or effectiveness of these programs in UNICEF project areas.

The training of the Supervising Bidan to oversee the performance of the BDD has focussed almost exclusively on improving the administrative skills of the BDD (e.g., keeping of accurate records, maintaining adequate stocks of drugs). There has been little focus on assessing and improving the BDD's skill in providing high quality ANC and delivery care, nor how to provide delivery care together in partnership with the TBA. We found that even in areas where the BDD had attended the facilitator workshop, Mother's Awareness Group meetings were not happening. The midwives told us that it was difficult to get women to come out to "another meeting" that, presumably, held little benefit for them. As noted in Section 5.2.2.7, other reviews and anecdotal evidence points to very poor results from these training programmes and we believe that UNICEF has made the right choice in deciding to "get out of training programmes".

The evaluation of the LSS training for BDD conducted by UNICEF in 1998⁴⁶, showed, that the quality of the training is still poor and needs to be improved. Below are listed some of the measures (besides the opening of the D3 schools discussed above) that are being instituted to attempt to remedy this situation:

- To improve the quality of training, the Ministry of Health has decreed (June 1999) that all training in Reproductive Health must now involve the National Clinical Training Network for Reproductive Health (NCTN-RH) which is managed by POGI (Indonesian Association of Obstetrics and Gynecologist). This network has prepared qualified trainers, standard training packages and the training conducted is competency-based. The NCTN-RH presently covers only 15 provinces.
- A review on the LSS training package is planned, and may be adjusted to meet the standards of the NCTN.
- The NCTN has developed a training course on "Basic Delivery Care" for BDD which is being pilot-tested in East and Central Java, and training has also begun in South Sulawesi.
- IBI is working with MotherCare and JHPIEGO in training senior midwives to conduct peer-review of BDD practice including clinical competency. A peer-review has just been completed in

⁴⁶ Sulistomo A. Evaluation Study of "Life Saving Skills" training for Community Midwives in Central and East Java. Department of Community Medicine – University of Indonesia, MOH and UNICEF. 1999.

Kalimantan and plans to carry out the same programme were being made for Central and East Java when we spoke to representatives from IBI.

We also list here three other recommendations arising from that evaluation and the MH assessment team's review of the situation of the BDD. These are not specific to UNICEF but are wider recommendations which UNICEF may choose to support in its advocacy role:

1. A clear job description of the BDD, should be developed together by all sectors within the MOH and from other Ministries involved. Wherever possible, the reporting required should be minimized and simplified.
2. Training for BDD should be competency based, one topic at a time, with adequate opportunities to practice. To avoid BDD absenteeism, some of the clinical practice should be conducted in the nearest *Puskesmas*, supervised by a midwife who has been trained as clinical instructor.
3. BDD "counselling & communication" training should be evaluated for content and quality. This training must be supported by good quality, appropriate IEC materials.

Support and Sustainability Issues

Upon graduation, the crash programme BDD is posted to a village under a three-year contract with the government. Once this contract is over, the BDD has the option to renew her contract once, for another three years. After that they are expected to become private practitioners, having created confidence in their skills and enough demand for their services that the community is willing to pay out of their own pockets. Even though more than 54,000 midwives have been distributed throughout Indonesia (which has about 56,000 villages) in the last decade, this does not mean that almost all villages are covered. Many midwives have already left their villages, choosing not to renew their government contract after the first three years. There is no reliable data on how many midwives have already left, where they have gone or what they are now doing. The Indonesian Midwives Association is currently working on tracking these BDD. They estimate that overall about 60% will leave their villages when the second round of three year contracts end (this will be 2002 for the last graduates). A study on BDD in West Java⁴⁷ estimates that about 30% of the midwives in that province will not continue working in their original villages. It is suspected that these numbers will be higher for provinces off the island of Java and for the most remote villages.

At present there is no data on BDD coverage. We were able to get rough estimates from district and provincial officials during our field visits to UNICEF project sites. The usual BDD coverage in districts with UNICEF-supported activities was about 65%, with the exception of the province of Central Java that estimated close to 90% coverage province-wide. However, all officials cautioned that this coverage is expected to drop dramatically within one to two years with the end of government contracts. Besides concerns about the future availability of BDD as the frontline village health worker, we also noted

⁴⁷ Survey of Bidan di Desa in West Java, Summary of Findings, funded by MOH West Java and UNICEF, October 1997.

problems with day-to-day availability of the BDD in UNICEF project villages. The *Bidan di Desa*'s time is divided by competing duties to provide cross-coverage for other villages, provide services at the *Puskesmas*, hand-deliver reports on various programmes to supervisors and attend sub-district and district level meetings and training sessions. Between these activities and the need for holidays and visits home to family and friends, it is therefore unavoidable that the BDD may quite often be absent from the village, sometimes for long periods. In about a third of the villages we visited, a BDD was away that day. The "party line" is that nearly all births are now attended by the BDD but this is difficult to believe, given the above constraints. When questioned closely, both the BDD and *Dukun* admit that "a few" babies are delivered by the *Dukun* alone when the BDD must be away, during the long Idul Fitri holiday, for instance.

During her three-year government contract, the BDD is paid a salary that is higher than the "normal" government employee salary. They are expected to work like government employees, providing care during the usual government office hours without asking for additional payment. They are allowed to have their private practice during "after-work" hours. Because the nature of their work finds them often participating in village activities and providing delivery care outside of regular government hours, it is often difficult to separate their "government" practice from their "private" one. In addition to this day-to-day tension between public and private work, the BDD is expected to abruptly shift to a 100% private practice by the end of her government contract. Of the small sample of fourteen village midwives we were able to interview, nine were permanent government employees, having graduated from the full six-year *Bidan* training program early in its existence and were associated with a *Puskesmas* as well as acting as a village midwife. These BDD were content to stay on in their present situation. The other five were graduates of the crash program and had from a few months to two years left on their contracts. Asked what they planned to do when their contract ended, four said that they would apply to become government employees. Even though the government salary would be very small, it seems that the security of a government post is very attractive. There is an extremely small number of these contracts available, so the chance of getting one is remote. If unsuccessful in getting a long-term contract, one felt that she would stay, one was certain she would leave to return to school and the other three were undecided. The one BDD who was planning to stay is married to a local policeman and was pregnant with her first child.

The midwives' professional association has proposed one possible solution to the impending loss of a large proportion of BDD from the villages. In anticipation of decentralization, IBI has encouraged their members in several provinces to lobby local governments to consider hiring BDDs as provincial or district government employees at the end of their national government contracts. The Governor of Nusa Tenggara (NTB) Barat province has publicly promised to make all BDD in NTB provincial employees once decentralization is fully established.

All of the BDD we interviewed had reasonably busy private practices and felt that they could "survive" on their private earnings, if necessary. The major part of their private practice dealt with general medical problems such as respiratory infections, diarrhea, and aches and pains. Some also had busy private midwifery practices (60 to 120 deliveries per year) and were able to charge up to Rp. 150,000 for a normal delivery plus costs of post-partum care if the mother recuperated at the *Polindes* or in the BDD's

home. None had been providing delivery services for free even before the advent of the SSN or the *Tabulin* programmes, but did offer rates on a sliding scale depending upon a family's means. The "going rate" for delivery among the BDD's we interviewed ranged from Rp. 25,000 to 150,000, plus or minus the cost of drugs and post-partum recovery care. Most had been offering free antenatal care, seeing this as a kind of "loss-leader" in bringing women into the BDD's practice who would then become regular paying clients for other services.

As discussed in Chapter 4, the village midwife's dilemma (providing some public or free services while trying to build a private practice base) has been made that much more difficult by the advent of the SSN and *Tabulin* programmes. This was especially evident to us in Central Java where the *Tabulin* program decided upon a fixed fee for BDD maternity care services which, in most areas, was lower than their previously established fees. The *Bidan di Desa* were generally not included in the deliberations regarding the setting of these fees and we witnessed expressions of their resentment of this program. Many of the Bidans that we interviewed clearly stated that the payment for their services through *Tabulin* and SSN is minimal and that if every client used *Tabulin*/SSN they would lose a mayor amount of their income. Several *Puskesmas* doctors also commented that midwives should receive higher payments from *Tabulin* and the SSN. Bidans who had a flourishing private practice before the advent of *Tabulin* try to limit their services to only those *Tabulin* members who are living in their immediate catchment area and do not accept members outside. Alternatively, only limited services are provided to *Tabulin* members (only 1 days of stay, no laundry services, or limited food provision), so that the client has to pay extra to receive the full service.

The BDD and many in the MOH and donor community see the Social Safety Net programme in particular as undermining community and individual self-reliance. *Bidan di Desa* told us that before the advent of the SSN and *Tabulin* funds, women and their extended families were actively saving in anticipation of delivery costs. Now they fear that once the SSN runs its course, families will say, "Why should I pay the Bidan, this service cost less (or was free) before?". There appears to be little differentiation among villagers between the *Tabulin* and SSN programs. In the long term, these tensions will affect the BDD's efforts to reinvent themselves as the private practitioners the GOI has planned them to become.

Recommendation #6:

The *Bidan di Desa* (BDD) is the key agent in the UNICEF-GOI Safe Motherhood Programme. The sustainability of the programme offering primary care including MCH care at the village level is in great jeopardy should large numbers of Bidan de Desa leave their village posts once their government contracts are over. We recommend that:

- a. UNICEF join other donors in pressing the GOI to state a clear plan re: how to deal with this potential loss of front-line workers.
- b. UNICEF support essential operations research to define the issues that lead BDD to leave village posts.
- c. UNICEF include the BDD in discussions of various projects (*Tabulin*, *Pesantren* funds) and look closely at the real or potential effects of these projects on the BDD's practice.

5.2.2.9 *The Dukun*

The *Dukun* or traditional midwife has been renamed the “*Dukun bayi*” or “baby’s attendant” in an attempt to redefine her role. We saw evidence of friendly relationships between the BDD and *Dukun* we met at UNICEF villages. We noted that project initiatives such as “incentives” for the *Dukun* to fetch the BDD to attend births were being used up to a dozen times per year in villages where the BDD was attending at least 30 births per year. The incentive was explained as a small amount of money to cover the *Dukun*’s transport costs to travel to get the BDD. In two different villages this amounted to Rp. 15,000 (about CAD \$4.00) when the actual cost of transport was likely to be closer to Rp. 5,000. Clearly, there is a small monetary incentive included in this transport fee. This begs the question of sustainability of the BDD-*Dukun* partnership should this incentive programme end.

We asked a number of *Dukun* what they thought about the services available to their clients at the health centre and district hospital. They were polite in their praise of the cleanliness and good service at these facilities but when asked to comment further, stated that “the staff could be friendlier and more welcoming” to both the *Dukun* and her client. We suggest that much could be learned from the *Dukun*’s knowledge about culturally acceptable care of pregnant women and that this knowledge has been barely tapped by either the BDD training programmes or the health centres. *Puskemas* and District Hospitals could become “*Dukun-Friendly*”, using *Dukun* orientation visits to as an opportunity to seek advice from these traditional practitioners on ways to improve the acceptability of services for village women.

5.2.2.10 *The Role of the Village Health Volunteer (Kader)*

This topic has been given detailed attention in Chapter 4; we include it here to provide a few illustrative examples of the problems we witnessed with relying on the *Posyandu* volunteers or *Kaders* to provide primary health services. Even after training, the volunteers we observed and spoke to demonstrated a lack of basic knowledge regarding the reason for providing such services as weighing children and handing out supplementary feeding packets. We noted technical mistakes in weighing women and children (with books in hand in the case of one woman).

We witnessed two cases that clearly illustrated the problem of what should be done when a volunteer encounters an abnormal finding while performing *Posyandu* activities. At one *Posyandu*, we met a two-year old girl whose weight had been plotted below the red “danger” line (meaning that she was malnourished) for over a year. According to her mother, the child had suffered no severe illness during this time, only that she often had a runny nose and usually didn’t want to eat. When we asked the mother and the *Posyandu* volunteer what response this finding had provoked, we were told that the mother was given nutrition education (“feed her child more and better foods”) and was told to return the next month. After three readings below the danger line, she was referred to the local *Puskemas* where she had a free check-up performed by the GP and again the mother was given more feeding advice. The mother was offered supplementary feeding packets but, after trying it once, refused it again as her baby did not like the taste. After three more readings below the danger line, the child was referred to the *Puskemas* again but still no diagnostic tests were performed to rule out simple problems such as parasites or anemia. Discussion with the BDD and the visiting MOH official led to assurances that the child would receive a proper diagnostic work-up at the district hospital very soon.

The second case we discovered of was that of a five-year old child who was also identified as malnourished. This child was eventually diagnosed with tuberculosis and was started on drug treatment as well as receiving supplementary feedings. The MOH-sponsored supplementary feeding programme is limited to 90 days of support and when this ended, the mother stopped bringing her child for treatment. It seemed clear to the volunteers that if they were able to offer food to this mother for her child, that treatment would probably resume. While receiving extra food and milk for her child, the mother had no complaints about the TB medication but without the additional food, the mother refused to give her child the TB medication, saying it "gave her a fever". At the time of our visit, the child had been treated for three months and then had been without treatment for another three months. There was no initiative shown on the part of the volunteers to see if there could be a way to continue providing supplementary food to this sick child. Nor was their concern about the child's persistent low weight communicated to the local TB programme worker since the *Posyandu* has no link to that programme. Again, once this situation was discussed with the district MOH officials accompanying us on our visit, we were assured that steps would be taken to ensure that this child received proper TB treatment and extra food.

UNICEF field staff provided a different and positive example: in Magelang, the kaders and the *Tabulin* Team assisted malnourished pregnant women and infants by providing them with supplementary feeding by using the funds accumulated within the *Tabulin*. Unfortunately, we have no details on the numbers of women and infants assisted through this program, how they were identified or what was the final outcome of the program.

5.3 Findings Specific to Each Project Province

In summary, our examination of maternal health service delivery data from the three project provinces revealed that each field office should be able to report small to moderate increases in coverage indicators (K4, PN and KN) over time in project villages and sub-districts. Unfortunately, up until now this has not been clearly reported to CIDA. As discussed previously, reporting on these same indicators from data aggregated at the district level is unlikely to show change that can be attributed to project activities when there are relatively few project villages in a district. The confounding factor of the Social Safety Net funds covering the cost of maternal health care services further complicates the ability of UNICEF field offices to report on changes that are meant to reflect the impact of project activities.

Details of project activities completed in each province, findings regarding the MH component that are province specific and an overview of what the assessment team was able to measure from data accumulated during our field visits are discussed here province by province.

5.3.1 South Sulawesi

During the last three years (97-99), South Sulawesi had completed the following activities under the MH component of the project:

1. Training:
 - 15 district midwives and 15 village midwives received counselling training, there will be 60 more midwives trained this year (third quarter of the year), if the local government approves the plan.
 - More than 20 *Puskesmas* Bidans trained on Standard Emergency Obstetric Procedures (PROTAP) and one set of PROTAP algorithms distributed to each of nine districts.
2. Support to the AMP Process:
 - AMPs were held at the sub-district level in 1998 and at the village level in 1999, numbers of meetings and findings unavailable.
3. Blood Donor Pairing Programme:
 - Supported the establishment of a blood donor-pairing programme that seeks to pair every pregnant woman in project villages with a minimum of three potential blood donors. UNICEF paid for the training of a sub-district lab technician to take village samples; testing in two selected sub-districts of nine districts; and the printing of blood type cards. This year they plan to fund the cost of equipment and supplies for blood transfusion at facilities in these project areas. We were unable to see the technical guidelines for this programme but according to the coordinator of the PA 1 team for the province the programme does only simple blood typing at the village level. If the pregnant woman ends up requiring a transfusion from one of her matched neighbours, the potential donor's blood is then screened for Hepatitis B and HIV at the district hospital. We raise the issue here of informed consent on the part of the well-meaning donor who should be aware that his or her blood will be screened for these diseases and that he/she should not consider being a donor if at high risk for carrying either of these diseases. No one could tell us if these issues are considered in this programme.

Service Delivery – Observations Specific to South Sulawesi

1. District Hospital EOC Capability:
 - Bantaeng: unable to provide EOC from beginning of UNICEF project until six months ago when the new District Medical Officer arranged for a medical school to send Ob/Gyn residents (who come for three months at a time) to provide services, no blood bank;
 - Sinjai: no EOC, trying to arrange for Ob/Gyn resident coverage, no blood bank; and
 - Bulumkumba: EOC has been available throughout the history of the UNICEF project; no blood bank, blood must be obtained from Makassar, nearly three hours away. As the only DH offering EOC in the region, it is the de facto referral centre for both Bantaeng and Sinjai, many villages would be more than two hours travel time away.
2. *Bidan di Desa* Coverage:
 - Approximately 67% of project villages have a resident Bidan.
 - During our evaluation, we found that one especially poor village (Desa Bua in Sinjai District), with poor transportation facilities and located over two hours by road from the closest hospital had been without a BDD for six months. The first midwife posted there had

stayed only two years, than there was a gap of one year before a second midwife arrived. She stayed only for one year and left to follow her husband who was transferred in his job. **This situation raises concern about UNICEF's ability to advocate for the needs of its project villages. The village head woman had petitioned district officials repeatedly for placement of another midwife in her village without results.**

- In some districts, up to 30% deliveries still attended only by *Dukun*.
- 3. PROTAP protocols were highly visible at Polindes, *Puskesmas* and District Hospitals.
- 4. TBA and Bidan partnership is supported via "incentive" (transport +) to *Dukun* to fetch BDD for deliveries. Ideally, the initial incentive could assist in the development of these relationships but this may not be the case and remains to be seen once the incentives are phased out. Such incentives are rarely sustainable and may be counterproductive to building the BDD-*Dukun* partnership.
- 5. Village action plans have led to the standardized presence of at least one, and usually many village ambulances. This is a positive move to help overcome the barrier of lack of affordable transport.
- 6. Blood donor pairing programme is especially important in those districts (such as Bantaeng, Bulumkumba and Sinjai) where the DH has no blood bank.

Reporting on Results

The difficulties in reporting on change in MH indicators in this province are complicated by the changes in the districts, sub-districts and villages that have been included in the UNICEF project during the last three to four years. Of the twenty original project villages chosen in 1996, twelve remain. We received a list of the current UNICEF project villages in South Sulawesi during our field trip (total 144 vs. 219, the number given to us in an update once we left). Of the total 219 project villages, ninety-three (42%) just became involved in the project in 1999. Even with excellent tracking of indicators, it would be difficult to show any change attributable to project activities in most villages in such a short time. We suspect that some of the other factors that could contribute to improved maternal health service delivery would include: the presence of the SSN, the relatively rapid economic recovery or limited impact of the monetary crisis in certain areas of South Sulawesi; the presence of bidans in large numbers where they were not present before; and the highly motivated PKK cadres that we met working in project and non-project villages alike. The GSI movement was more visible in South Sulawesi in comparison with the other provinces we visited.

In general, the BDDs we interviewed were able to produce village records showing increases in numbers of women attending ANC, having a trained provider present for delivery and having two post-partum visits. The confounding factor of the SSN coverage for these services needs to be taken into account when trying to attribute these increases to UNICEF activities. The three districts we visited, Bantaeng, Bulumkumba and Sinjai, comprise the villages that have been involved the longest in the UNICEF project (Bantaeng – 4 villages since 1997, Bulumkumba – 8 villages since 1996 and 15 more since 1998, and

Sinjai – 4 villages since 1997). Review of records from District Dinas Kesehatan (Health Offices) confirmed overall increases in the percentage of target numbers of pregnant women covered with four antenatal visits (K4), attendance by trained providers (PN) and post-partum visits (KN).

- Bantaeng showed increases in PN from 43% in 1997 to 60% in 1999.
- Bulumkumba showed increases in K4 from 18.3% in 1994 to 71% in 1999, and in PN from 19.5% in 1994 to 61% in 1999.
- The four original project villages in Sinjai showed overall increase in K4 from 20% in 1997 to 70% in 1999 and in PN from 23% in 1997 to 68% in 1999. However, one of the villages we visited, Bua, only saw increases in K4 to 27% and in PN to 27% – not surprising since they have been lacking a BDD for a good part of the last three years.

Detailed review of *Puskesmas* aggregated data from Sinjai District confirmed that there are major concerns about the validity and reliability of the data gathered by the MCH-LAM system. For example, the total number of births as counted under various headings (e.g., number of live births plus stillbirths, number of births by gestational age, number of births attended by each kind of birth attendant) differed by as much as 193. The percent coverage under a number of service headings also exceeded 100%. This was explained to be caused by women belonging to other districts delivering in this district or because the “target” calculation was incorrect.

As noted above, until very recently the Bulumkumba District Hospital has been the only EOC referral centre for all three of these districts. The following table has been constructed from the assessment team’s review of Bulumkumba District Hospital records.

Table 5-2: Maternal Health Statistics from Bulumkumba District Hospital, 1994-99

	1994-95	1995-96	1996-97	1997-98	1998-99
Total # Deliveries	196	206	186	322	286
# C-sections	44	63	72	57	66
# Maternal Deaths	2	5	7	7	3
Cause of Death					
Hemorrhage	1	1	1	3	1
Sepsis	-	2	5	3	-
PIH	1	2	1	1	1
Ruptured Uterus	-	-	-	-	1
# Neonatal Deaths (<1wk)	27	37	30	10	25
# Referrals from <i>Puskesmas</i> and Other Districts					
Bantaeng (% of expected # referrals*)			28 (7%)	17 (4.2%)	26 (6%)
Bulumkumba (% of expected # referrals*)			81 (9%)	61 (7%)	188 (22%)
Sinjai (% of expected # referrals*)			9 (1.8%)	6 (1.2%)	4 (0.8%)

- expected # of referrals for life-threatening pregnancy complications = [population of district (crude birth rate) + (15% of pop. x CBR)] x (9-15%), the % given is best estimate using smallest number of expected referrals
for Bulumkumba = [360,000 (23/1000) + 1242] x (9-15%) = 857 - 1428
for Bantaeng = [167,800 (23/1000) + 579] x (9-15%) = 399 - 666
for Sinjai = [212,760 (23/1000) + 734] x (9-15%) = 506-844

Analysis of the data presented here shows that only a very small percentage of the expected number of referrals for pregnancy-related complications, even from the *Puskesmas* in Bulumkumba District, are reaching this District Hospital. If, as expected, no more than a small percentage of women are getting EOC care at the Puskesmas or at private hospitals and clinics, the unmet need for EOC services in this district, and in this region, is extremely high.

The Director of this DH, Dr. H. Rusni Sufran, attributed the dramatic increase in referrals from within her own district in 1998-99 (from 61-188) to the positive effects of the AMP process and the GSI Movement. She particularly felt that distribution of the findings of the district AMPs had increased awareness of the need for early referral (particularly for post-partum hemorrhage) among *Puskesmas* staff and *Bidan di Desa*. These numbers also show the persistent under-utilization of the District Hospital as reflected in the small number of deliveries per year. It would be difficult to say anything about improved maternal health outcomes from this data given that there is no clear trend in the numbers of maternal death, neonatal deaths or causes of death.

Finally, the South Sulawesi data table presented as Annex Three of the May 1999 Third Annual Progress Report from UNICEF-Indonesia to CIDA is very poorly presented and virtually useless for reporting on results. It is not clear which numbers correspond to which indicators, most numbers are absolute numbers rather than being expressed as a percentage of a denominator (such as total number of project villages or total number of sub-districts). The correspondence between indicators and data sources (listed in the last column) is also unclear. Field staff at Makassar stated that they had not seen this table before we asked them to review it with us.⁴⁸

5.3.2 East Java

We were able to verify that during the last four years (96-99) East Java had completed the following activities under the MH component of the project:

1. Training and Supervision:
Workshop on the Acceleration of the Reduction of MMR held at nine districts and the provincial level in 1996.
 - 55 Bidans and GPs from remote *Puskesmas* trained in BEOC/PONED/LSS in 97/98.

⁴⁸ In our debriefing session with the SulSel FO staff clearly told us that they had not seen this table before and were at a loss to explain its confusing presentation and poor quality. We were told that the FO sends raw data to the central office and that someone there put together the report. We asked about this table on our return to Jakarta and one of the national office senior staff told us that a consultant had been involved in converting this raw data into tables for the report.

- 350 BDD trained in administration of MCH programme - this training appears to have been aimed at BDD from "low-performing" areas, aimed at getting these BDD to reach targets?
 - 1,100 *Dukuns* attended training programme on post-natal and infant care.
 - At least 180 *Dukuns* did DH orientation visits (Lamongan district).
 - 8 workshops were held at the district level in 1998-99 to train BDD on how to reactivate and implement "Mothers Awareness Groups".
 - In 1999, an estimated 80 to 135 *Bidan di Desa* (2-3 per weekend) have taken part in District Hospital on-call rota at Lamongan DH.
 - Funded the costs of monthly meetings between Bidans and *Dukuns* at the sub-district and village level in 1998-99.
2. Support to the AMP Process:
- AMP meetings in 37 districts and 1 provincial meeting were funded in 1998; the costs for 8 district meetings were funded in 1999. Of the over 500 maternal deaths in the province in 1998, 70 were presented for AMP.
 - Copies of a booklet compiling 34 AMP cases from 1998-99 and related statistics were printed and distributed to the Puskemas level in 1999.
3. Emergency Support to District Hospitals:
- Rp. 12 million per district hospital in 1999 to cover costs of EOC for poor women not covered by the SSN.

Service Delivery Observations Specific to East Java

1. Focus of the Safe Motherhood programme in East Java is the "Identification of High Risk Pregnancies" rather than birth preparedness. Dr. Poedji Rochjati, an East Java Ob/Gyn and architect of the Poedji High Risk scoring system exerts considerable influence in this province and is lobbying to have this scoring system and card adopted nationally even though the overwhelming evidence points to the need to shift focus to birth preparedness.
2. As mentioned previously, the AMP process is much further ahead both philosophically and practically in East Java in comparison with the other two project provinces.
3. A lot of effort went into attempting to resurrect Mother's Awareness groups through training workshops for BDD. In the few villages we visited we were told that these group meetings were not happening.
4. TBAs were trained for PN and infant care in support of their role as the *Dukun Bayi*. Hemorrhage is the commonest cause of maternal death in the country, and the *Dukun* is the caregiver who is with the mother in the first few hours after she gives birth, when excessive bleeding is most likely to happen. It makes a good deal of sense to train the *Dukun* to watch carefully for excessive bleeding and teach her simple and safe procedures to control bleeding until she can get the mother to medical care. It is unclear whether there is much focus on this area in this *Dukun* training.

Reporting on Results

According to provincial statistics, the general situation is that percent coverage for K4, PN and KN has increased modestly during the last three to four years.

- Estimated K4 coverage in 1996 was 70% and in 1998 had increased to 77%;
- Coverage for PN increased from 62% in 1996 to 75% in 1998; and
- KN had gone up from 69% in 1996 to 83% in 1998.

The District Level data that we were able to review demonstrated the following increases in coverage for the three main MH indicators between 1995 and 1998:

Lamongan

- K4 increased from 75 - 83%
- PN increased from 55 - 77%
- KN increased from 79 - 88%

Probolinggo

- K4 increased from 56 - 74%
- PN increased from 39 - 77%
- KN increased from 60 - 93%

However encouraging these numbers are, data on the four UNICEF project districts involved longest in the SM project show little change in a proposed proxy indicator for maternal health outcome, neonatal mortality ratio (NMR). The estimated NMR for each district and the province as a whole over the period 1995-98 is displayed in the table below:

Table 5-3: Neonatal Mortality Ratio per 1000 Live Births - 1995-98

DISTRICT/YEAR	1995	1996	1997	1998
Lamongan	1.9	4.7	7.0	8.6
Probolinggo	11.9	10.8	12.6	10.4
Sampang	7.7	8.4	2.2	1.4
Tulungagung	3.2	9.4	9.4	6.3
Province East Java	5.1	5.9	6.1	5.9

Basic analysis of this data makes us suspect that the great variability in NMR year to year by district may be partly due to variable reporting. The most we can say is that there is no clear trend towards improvement in any district except perhaps in Sampang.

Annex Two from the Third Annual UNICEF Progress Report to CIDA showed little improvement in MH indicators in project districts where UNICEF has been active between 1995-1997. The overall change in

K4 had been negligible (from 69.3% in 1995 to 69.2% in 1997) and the suggestion is that PN had decreased (from 69.3% in 1995 to 57.5% in 1997).

5.3.3 Central Java

During the last four years (96-99), Central Java had completed the following activities under the MH component of the project:

1. Training and Supervision:
 - 300 Bidans and 58 trainers were trained “to meet community demands when receiving services”.
 - 5,500 *Puskesmas* Bidans trained on MCH Programme administration and technical supervision of BDD.
2. Emergency Support to District Hospitals:
 - In 1999, four DHs received Rp. 51 million each and seven other DHs divided a total of Rp. 150 - getting about Rp. 2 million each.

Service Delivery Observations Specific to Central Java

1. Proportion of villages in a district having a resident *Bidan di Desa* was generally about 65-70%. In general, cross-coverage from nearby villages makes BDD coverage closer to 80-90%.
2. We observed that, at least in the districts we visited, there appeared to be excellent tertiary level coverage and *Puskesmas* services were used to a much greater extent than in other provinces. Local health workers told us that women in the districts that we visited had chosen to access these services for a long time before the GSI or UNICEF projects arrived. This information appears to contradict the previous findings in Section 5.1.1 (i.e. that the percentage of women giving birth at home in Central Java is 77%, the highest among all three provinces, and that percentages of births attended by a trained professional in CJ was 38%, the lowest among the three provinces). The UNICEF project villages health worker’s own estimated MMR puts Central Java at among the lowest in the country (as low as 120 in some districts). The mission is puzzled by these differences in reported numbers (GOI vs. local health workers). It has been suggested that the culture of Java must be taken in to account - the norm is not to admit that not everyone has been using the health facilities (that is, not doing what they have been told to do), to avoid “shame”.
3. The *Dukun* played a very small role in the two districts and three sub-districts we visited. In Karanganyar in particular, the *Dukun* (even as part of the BDD-*Dukun* team) attended almost no deliveries.
4. In this province we found sub-district health workers (*Bidan* and *Puskesmas* GP) using “actual” numbers vs. targets in counting pregnant women in their MCH-LAM reporting forms at level.
5. We saw one village, Desa Gerdu, which was attempting to run a health insurance scheme or Dana Sehat that would pay part of all health care costs at the Polindes. The village headman

complained that *Tabulin* funds should not be held separately, but should be rolled into the Dana Sehat to make it truly comprehensive.

6. The resentment felt by the *Bidan di Desa* toward the SSN and *Tabulin* programmes was clearly expressed in the districts that we visited.

Reporting on Results

Central Java village records demonstrated increased coverage over the last few years for K4, PN and KN in the project villages we visited. Data from four Puskemas in Magelang also showed increases of 15 to 50 percentage points in K4 and PN coverage in 1998-99. However, the 1999 province-wide compilation of statistics for UNICEF project areas given to us by the field office listed only the estimated numbers of pregnant women by district and municipality without coverage data. The latest coverage data for all of the UNICEF project districts is from 1997 BPS statistics and does not show any change over time.

The assessment team was able to construct a table demonstrating unmet need for EOC in Magelang from data from Muntilan, one of the two public hospitals in that district.

Table 5-4: Maternal Health Statistics from Muntilan District Hospital - 1997-1999

VARIABLE/YEAR	1997	1998	1999
Total # Deliveries Referred/non-referred	218/205	211/230	224/197
# Complicated Deliveries Referred/non-referred	68/50	107/79	127/66
Expected # Complicated Deliveries*	1,247 - 2,079	1,247 - 2,079	1,232 - 2,054
Highest % Expected Complications Reaching DH**	5.5 %	8.5%	10.3%
# C-sections Referred/non-referred	82/90	89/94	79/50
Expected # C-sections in District***	482	482	476
% Expected C-sections Performed at DH****	17%	18.5%	16.6%

* Expected # complicated deliveries referred to Muntilan DH = (population Magelang district divided by 2) x CBR x 9 - 15%

** Highest % expected complications reaching Muntilan DH = (# referred complicated deliveries x 100) divided by (lowest number of expected complicated deliveries)

*** Expected # C-sections = (population Magelang district divided by 2) x CBR x 4%

**** % expected C-sections = (# referred C-sections x 100) divided by (# expected C-sections in district)

Population Magelang district in 1997: 1,048,170 (BAPPEDA); 1998 uses 1997 figure; 1999: 1,035,544 (UNICEF)
Approximate CBR calculated from UNICEF data on # pregnant women vs. total district population 1999: 23 per thousand

It was explained to us that due to the location and services available at each of the two hospitals in Magelang, each is expected to receive about half of the referrals from the district. As in the case of Bulumkumba DH in South Sulawesi, these numbers show clear unmet need for EOC services in Magelang District with less than 11% of expected complicated cases reaching the DH and less than 20% of the estimated number of C-sections being performed.

Annex One from the May 1999 Annual Progress Report is also unacceptable for reporting for results. The layout does not explain where the total sample numbers come from or in what year they were

counted. Are they total populations of project villages, numbers of pregnant women or numbers of members of *Tabulin*? The definitions of non-poor and poor are likewise not explained. Numbers of pregnant women who have accessed K4, PN and KN in 1998 and 1999 are listed but absolute numbers are given rather percentages of total numbers of pregnant women in each district. A percent change in these absolute numbers holds little meaning without a denominator. The source of this data is only given as "survey" without further details.

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