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TRIP REPORT #7

I N D O N E S I A

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MotherCare Project**

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ABBREVIATIONS

IEC	Information, Education, Communication
MCH	Maternal and Child Health
TBA	Traditional Birth Attendant
WHO	World Health Organization

I. EXECUTIVE SUMMARY

A. Purpose of the Trip

The purpose of this trip to Indonesia for Dr. Barbara E. Kwast was twofold:

1. The Regionalization Project

- to participate in the implementation of activities mainly at the village level (particularly the polindes) in Tanjungsari Kecamatan.

2. The East Java Safe Motherhood Project

- to help facilitate the start-up activities in the East Java maternal mortality project with RS Soetomo.

The Women's Health Advisor was also to discuss with the Project Staff of the Health Research Unit, School of Medicine, Padjadjaran University MotherCare's thoughts about the timeline and end of project products of the project.

B. Field Activities

1. Three groups of Obstetric and Midwifery Staff were trained in the management of labour with the WHO partograph:

- A one day seminar with the Obstetrician/Gynaecologists and Physicians from health centres both from Tanjungsari and Sumedang Kecametan in Sumedang Hospital on July 6, 1992.

- A three day training for six nurse midwives from the Tanjungsari project area on July 8, 9 and 10, 1992.

- A one day seminar for 25 nurse midwives and 4 physicians from Sumedang Obstetric Unit on July 11, 1992.

An evaluation meeting on the implementation of the WHO partograph was held in Sumedang hospital for all participants at the above mentioned training sessions on July 18, 1992.

2. Nine of the ten polindes in Tanjungsari were visited and supportive supervision was provided for the nurse midwives during the antenatal clinics.

3. Deliveries were attended both in the Polindes by Traditional birth attendants and by the Physician in Tanjungsari Hospital.

4. The protocol for the Polindes was discussed with Dr. Hedy and the nurse midwives of Tanjungsari and written comments given to Dr. James Thouw.

5. A schedule was made with Dr. Hedy and the community midwives (bidan di desa) for weekly antenatal sessions in the polindes by community midwives.

6. A meeting was held with the 10 Kepala Desa (Village Heads) in whose village a polindes has been established to discuss problems of management and fees (Appendix F contains issues discussed).

7. A Polindes in Majalaya, which is outside the project area was visited to learn about self-reliant community efforts to establish polindes without special inputs from outside.

8. A meeting was held on 4th July in Bandung, during the Indonesia Congress of Obstetrics and Gynecology, with Dr. Poedji Rochjati from Surabaya to discuss the timeliness of Barbara Kwast's input into the East Java Safe Motherhood project at the present.

9. A half day session of the Indonesia Congress of Obstetrics and Gynaecology was attended when Global and National Safe Motherhood Activities were presented by Prof. S.S. Ratnam of Singapore, Dr. S. Khanna, WHO Representative in Indonesia, Dr. Nardho Gunawan, Director of Family Health DEPKES and the UNICEF Deputy Representative.

The WHO partograph and results from the participating centres in Indonesia were presented. Use of oxytocin augmentation in labour in health centres was discussed. The conclusions about the potential dangers of this procedure and recommendations for non-use in health centres were included in the training given by the writer.

10. A meeting was held with Dr. Nardho Gunawan, Director Family Health (DEPKES). The briefing on the progress of the project was very useful. Dr. Nardho gave us flipcharts and teaching materials regarding the IBU HAMIL antenatal card which is used by the Government. These materials are not being used in the project area and the IEC consultant is not aware of their existence.

11. A courtesy call to Dr. S. Khanna, WHO Representative gave the MotherCare Staff an insight into the Interagency activities relative to maternal health and safe motherhood in Indonesia. It also afforded the opportunity to give Dr. Khanna information on John Snow Inc. and to share recent MotherCare products with her.

C. Follow-up Activities/Recommendations

1. The implementation of the WHO partograph will be monitored in the project area both by Drs. James Thouw and D. Effendi.

Dr. D. Effendi will teach the remaining physicians in Kabupaten Sumedang and will start the teaching in the Sumedang midwifery training school.

Dr. Kwast will teach the WHO partograph to the Bandung Branch of POGI (Indonesian Society of Obs & Gyn) on her return in November 1992.

Dr. Anna suggested to bring Bidan Betty back in 3 months time for further support to the community midwives regarding the partograph. However, this should only be done if Bidan Betty can be paid a honorarium for these services and concurrence to release her is given by Drs. Arfan and Iyan of Tangerang Hospital.

2. A meeting with the Kepala Desa's from 27 villages of the project area will be held on 29 July, 1992 in Tanjungsari Hospital to further discuss the use of Polindes by other villages than the one they are located in.

The fees to be charged will also be discussed.

It has been suggested that Dr. Hedy will familiarize the Kepala Desa with the danger signs as drawn on the Ibu Hamil card during that meeting in order to create more clarity about which type of women can be attended for delivery in the Polindes.

3. The protocols drawn up by Dr. James Thouw for Polindes and Puskesmas need to be discussed and finalized at the end of July in the regular Wednesday meeting. Dr. James Thouw takes responsibility.
4. The risk score needs to be added to the three cards which are being used by health personnel at village and health centre level. It also needs to be taught to community midwives, Kaders and doctors by the end of July. Dr. Anna takes responsibility. If this cannot be achieved, almost one-third of the evaluation framework is not applicable.

A sign to indicate whether complications have occurred during labour and postpartum on the Ibu Hamil card will have to be agreed upon by the Implementation and Research team and health staff has to be trained, otherwise the project will only have a subjective history of complications from the woman herself. Dr. Anna will take this up.

5. Close supervision and follow-up regarding the administration in the polindes following the training by Drs. Sutedja and Swandari is required for evaluation of this project. Dr. Sutedja takes responsibility for follow-up.
6. The IEC materials given to MotherCare Staff by Dr. Nardho Gunawan will be shown to Carrie Hassler Radelet upon her return from leave. Dr. Anna has been requested to find out whether and if not, why not, these materials are used by the health centre staff in the project area.

Dr. Poedji Rochjati is in agreement that her IEC materials are adapted by the Tanjungsari project as necessary.

It is recommended that both the materials of the Ministry of Health and those of Dr. Poedji shall be looked at.

The Project Staff welcomes Kim Winnard, Senior Communication Advisor of Manoff/MotherCare to Tanjungsari for two weeks from August 18th.

7. The cost questionnaire is being field tested for the second time. Dr. Anna wants to go ahead with the cost study and appreciates Mr. Yusril's conceptualization of this study. Further consultant input was discussed. Dr. Anna thinks that some help would be needed with interpretation of data and literature on costeffectiveness studies is needed.

Dr. Carl Serrato's contract with MotherCare is finished and he suggests that Dr. Glenn Melnick take on the consultant role in Tanjungsari.

This needs further decision with regard to financial implications by the MotherCare Director. The writer was unable to contact Dr. Glenn Melnick while in Jakarta.

8. It was agreed with Dr. Poedji Rochjati and Dr. Mike Linnan that a visit to Surabaya and Probolinggo by Barbara Kwast would be more useful in early November 1992 after three months of implementation.

II. FIELD ACTIVITIES

Dr. Ny. Hedy B. Sampurno, Deputy Director of MCH, Sumedang, arranged a programme for Barbara Kwast and to stay in village Gunungmanik, Kecamatan Tanjungsari from July 3 to 18, 1992 (Appendix B). Accommodation was provided in the house of the Village Head and his family. One of the supervisors of the project, Yudi Nugraha, acted as interpreter during most of this time. Seeing that the polindes of Gunungmanik village was actually at the Village Head's house, it afforded an opportunity for observing the radio communications, the activities of the traditional birth attendant at the polindes, antenatal and posyandu activities.

A. Partograph training

The first week was taken up with the WHO partograph training of community midwives of Tanjungsari, obstetrician/gynaecologists of Sumedang hospital, physicians of the health centres of the project area, physicians from the Sumedang Kabupaten who staff health centres with beds and all nurse midwives who work in the Sumedang hospital obstetric department.

(A partograph is contained in Appendix C).

During the one day seminar for the physicians, a pediatrician provided translation and the seminar was also attended by Drs. James and Yanti of the project. The partograph was implemented in Sumedang immediately. The writer stayed in the hospital for the remainder of the evening, but unfortunately no women were admitted in labour.

The training of community midwives took three days and Bidan Betty Yulisman from Tangerang hospital came to assist with the teaching. Firstly, because Tangerang hospital participated in the WHO multicentre trial on the WHO partograph and second, because Bidan Betty is the labourward sister in Tangerang and has an excellent grasp of the management protocol and good teaching skills.

The training of midwives of the Sumedang hospital could only be for one day, but they have the support and supervision of Dr. D. Effendi, Consultant Obstetrician/Gynaecologist of the unit.

It was agreed that an evaluation should take place after two weeks of implementation and this was held on 18 July, 1992. All staff who had been taught were present and all cases which were managed in the hospital, health centres, village and the midwife's private practice were reviewed in an open and non-judgmental spirit. The quality of recording and management was excellent. General opinion about the visual display of the progress of labour and thereby more participation in the interpretation of progress by the midwives was very positive.

The discussion was fruitful; excellent questions were asked and several problems resolved. Staff could already see that with lesser oxytocin augmentation equally good results could be achieved without compromising the fetus and probably enhancing fetal outcome. As the Consultant pediatrician was also present, the latter point was emphasized as he received a number of babies in the past who had suffered from too vigorous oxytocin augmentation.

As Dr.D. Effendi is in charge of the obstetric unit which receives the majority of referrals from Tanjungsari project area and also trains the health centre physicians, it was agreed that oxytocin augmentation should not be commenced in the health centres, but only in the referral hospital with facilities to perform emergency caesarean section. It was also agreed, that if a woman's dilatation is between the Alert and Action Line (transfer zone), that vaginal examinations will be done 2 hourly, instead of 4 hourly, so as not to unduly delay transfer of the woman to the hospital if necessary.

B. Organization of the Polindes

There is at present a polindes in 10 of the 27 villages in Tanjungsari. All but one are functioning. A map of Tanjungsari is contained in Appendix D and the location of the Polindes is indicated by a circle.

Radios have been installed in all ten villages and the three health centres. Radios are not in the polindes everywhere because some polindes are only used for clinics or delivery, but are not staffed 24 hours a day. In those circumstances the radio is in the Kader's house. The radios are working well and communication is possible between polindes and between polindes and health centres. The radio is not as yet installed in Sumedang as a tower needs to be built in order for the communication to reach over the hills.

Equipment: All polindes have received three examination couches - one for delivery and two for antenatal. As the polindes differ markedly in space, the arrangement of furniture does not make the place look attractive in some of them. The equipment bought by the project is expensive and not always user friendly. Women are afraid to lie on hard, high beds. The stretcher material is non-elastic and quite different from the traditional way of transporting women and therefore they are not used.

The refrigerators are not used. It is not cost-effective because vaccinations are not given at the weekly antenatal clinic and where polindes function as posyandu, immunization is done once a month and the health centre brings the vaccines and cool boxes. Even if the refrigerators were in use, it is not clear who would pay for the electricity.

The witer discussed with Drs. Anna, James and Soeprapti Thaib whether these could be returned to the factory and other equipment, e.g. stand with hand wash basins could be purchased. This will be looked into.

During observation of deliveries it was obvious everywhere that the practice of asepsis, antisepsis and even handwashing before procedures needs reinforcing with TBAs, bidans and physicians alike.

As the polindes are mainly used by TBAs for delivery, they cannot perform episiotomies or suturing. If required, the midwife needs to be called by radio to come and perform these tasks. Therefore the suturing equipment is not in the polindes but either kept by the midwife herself or at the health centre. This arrangement prevents any other health worker who is on the scene at the time to carry out such a procedure if needed. This needs to be discussed particularly as the equipment was ordered for the polindes.

Scales and height measures are at all polindes. Field monitoring revealed that the majority of scales are not balanced properly and recording of weight with complicated subtractions is unreliable. Very few bidans, kaders or TBAs know how to take the height with the height measures. This was taught everywhere.

Access: Having lived in the village and travelled around the project area a great deal, it is clear that women who live in a village without a polindes will not access a village with a polindes for delivery because of distance. Even within a same village, women often find it too far to walk when in labour. The terrain is hilly and the women's feelings are understandable.

Payment: The question of payment is not clarified. Community midwives' charges vary from Rp.15,000 to 30,000. Polindes charges are Rp 1000 - 2000 and charges for the TBAs vary between Rp 2000 - 5000.

In a conversation with Dr. Nardho Gunawan of the MOH it became clear that midwives are permitted to charge fees, even in government hours and that should be regarded as an incentive for them to stay in the village. This information has been conveyed to Dr. Anna for the meeting with the 27 Kepala Desa which was to take place on 29 July, 1992.

On a field trip to a polindes outside the project area I learned, that the community had agreed that the midwife's fee would be Rp 25,000 and that of the TBA Rp 10,000. Out of this amount both midwife and bidan pay for the drugs and for the use of the polindes (Rp 2000). The midwife also pays the TBA for her services. The remainder is for the midwife or TBA. There seemed to be no problem with this arrangement as all parties had agreed to this system, including the community.

Type of women for delivery in Polindes: The project team has decided that only low risk women should deliver in the polindes. This notion does not exist with the Kepala Desa who think that high risk women can also deliver in the polindes. This needs to be discussed between the team and the Village Heads and subsequently between Village Heads and the LKMD (Village Committee).

This issue is of consequence for the IEC campaign should it consider to include promotion of the polindes. It is a difficult concept for women and families to accept that low risk birth should happen in a polindes, if they feel more comfortable at home.

Further decisions need to be made regarding referral in case of emergency. Does the woman with a complication go direct to the health centre or does she go to the polindes because she assumes that emergency care can be provided there by a midwife or alternatively transport can be called through the radio system.

Referrals for prolonged labour with subsequent stillbirth and retained placenta are still the order of the day in Tanjungsari. The majority of these women have had 5 or more antenatal visits. Midwives and physicians are not teaching anything to women about the length of labour or when referral should be considered under the pre-text that women cannot read time.

One of the priorities of the IEC should be to teach women and families that woman who has been labouring for 12 hours and is not near delivery, should be referred.

The number of deliveries are still very low in the polindes. In order to calculate the percentage against the expected number of birth per annum, assuming that the birth rate is 25 per 1000 population, population data for each village are included in Appendix E for reference.

Antenatal activities in Polindes: Now that there are six midwives in the project area who can provide community midwifery services, a schedule has been made whereby each polindes will be covered for one antenatal session per week. This will not happen if the midwife is called for a delivery elsewhere.

The work schedule of these community midwives is heavy and they are all doing good work. They have posyandu activities and health centre duties while they may have been called during the night for a delivery, suturing or an emergency.

Being for two weeks in the project area, the writer has been able to work with all midwives during antenatal sessions and with about 20 TBAs. The midwives' antenatal care is good. However, there was no teaching observed for pregnant women while teaching materials do exist, but are apparently not available in the project area. Teaching materials for family planning were in use. The writer had an opportunity to work with and teach TBAs both in the clinic and on home visits.

The writer did not get the impression that the community midwives were proactive in their practice in the sense that they would go out to visit women for antenatal care with the TBA, if women did not come to the clinic. This happened twice, when none or only 2 women came to the Polindes and we went out home visiting with the TBAs who of course knew the location of their clients. This is the type of supportive supervision the midwives need and it is hoped that they will do this in the future. There is still uncertainty in the community about the schedule for antenatal clinic days as only recently more midwives were posted to the area and clinic days can change because of other activities.

Women have various options for antenatal care. If the posyandy has an antenatal clinic they will visit; if the polindes has an antenatal clinic and the midwife cannot be present, the clinic will be conducted by TBAs and kaders and the women may choose to see their TBA at home or also go to a private midwife because she is nearer than the polindes or posyandy. The writer visited one woman who had 16 antenatal visits from all different providers and places and she was prepared to pay for these services. This same lady had a cardiac condition and had been admitted to the ICU of a hospital in the previous year. Furthermore it was her 6th pregnancy after a birth interval of 11 years. The experienced community midwife told her to deliver in the Tanjungsari hospital, but the woman went to the private midwife instead.

It will take considerable management skills to organize regular antenatal care for women between the polindes and posyandu. Furthermore, some posyandus

are held in the polindes where they exist, but not all. The reason is, that several posyandu (between 4 to 11) are held in one village depending on the size of the village.

Administrative training: Drs. Sutedja and Swandari conducted training sessions for Kaders, midwives, TBAs, Kepala Desa and health centre physicians on administrative matters regarding polindes activities and finances. The number of registers has been reduced from 20 to 8. The books which are now in use should provide the vital information on the services, finances and radio communication of the polindes. It is the intention that one supervisor will screen the books every month and enter the final monthly information on a summary sheet for data entry into the computer. Having seen the books in use only for one week, it became apparent that this activity needs support and follow-up. Dr. Sutedja will take care of this supervision. The project evaluation will derive important information from this system provided the books are used properly and consistently. Books with referral forms are also available.

There is a lot expected from the health centre physicians in this project with regard to organization, management and supervision of staff and activities in the field. It is also clear that the time of the University Project team to supervise field activities is very limited. The health centre physicians give their best and to expect more supervision and teaching from them in the field is unrealistic.

Protocols: Dr. James Thouw has written protocols for the polindes and the health centres (Appendix C and D). They were distributed two months ago but no feedback had as yet been received from the health centre physicians. The writer, together with Dr. Hedy and the community midwives went systematically through the protocol for the polindes, made comments, changes and additions in order to streamline the protocol with the teaching and practice in the Kabupaten in which Dr. Effendi, Consultant Obstetrician/Gynaecologist does the teaching for physicians and midwives. The changes were submitted to Dr. Thouw.

It was agreed with Drs Anna and James that the health centre protocol should be discussed with the physicians in the Wednesday meeting before the end of July 1992, and that both protocols should then be finalized. Drs Thouw and Effendi are still working on the hospital protocols.

Even though Tanjungsari is a project area of the Padjajaran University, it is important that training and treatment schedules do not conflict with the practice of the MOH in the whole of Sumedang especially as Sumedang hospital is the referral centre and both physicians and community midwives of the project area receive training in Sumedang hospital. This issue was discussed with the project staff.

Records: The different cards for antenatal and delivery care which are being used in the project area have been a point for discussion for several months (c.f. Trip Report # 6, March 16 to April 2, 1992, Drs. M. Koblinsky and B.E. (wast)

The KIA (Kartu Ibu Anak) for antenatal and delivery care was designed by Dr. Anna and is already in the project area since the RAS study. This card is

available in the Polindes (not all) and is given by both TBAs and Bidans to the women. The card is primarily designed to guide the TBA in the recognition of complications and to refer appropriately to health centre or hospital. Wherever an antenatal clinic was attended by the writer, the TBAs were asked about their interpretation of the pictures on the card. These skills vary considerably - some of the TBAs are excellent and others have little idea. When this variation was noted and following further questioning of the Kaders it became apparent that the Kaders had never been taught about the complications on the KIA card. This was discussed with Dr. Anna and it was agreed that arrangements will be made for sessions to train the Kaders to recognize the pictures and chart information on the card when this is not done by TBAs and in the absence of the midwives.

Now that there are trained community midwives in the project, the KIA card is lacking in space to record vital information, such as fundal height, fetal heart and bloodpressure which the midwives can assess. This has also been discussed with Drs. Anna and James and space can be found on the card, but it needs teaching and supervision to make it work.

Even though the KIA is a home-based maternity record, women are not taught to recognize and act upon complications which are on the card. It was interesting to note that on the whole midwives feel that teaching women about complications will cause undue fear and is therefore omitted. On asking the Kepala Desa what they knew about these complications they said they were never taught about these.

Teaching danger signs and complications of pregnancy to men should be a priority in this project. The Kepala Desa are responsible to guide the village committees and they expressed in the meeting held with the project staff that they do want to be informed so that they can pass on this information. If this was done, it would at the same time help to clarify the role of the Polindes regarding abnormal conditions and timely transfer.

Unfortunately, the KIA is not in every pregnant women's hand. Some women go to posyandu or health centre or private practitioners for antenatal care. The Government uses the KMS (IBU HAMIL) card for which teaching materials exist which are not used in the project area. Some women have both cards or either one and in addition or exclusively, women have a health centre card if they are seen there antenatally.

Linkage of these cards and collation of information has also been a subject of discussion. The interviewers in the surveillance system ask women about complications and are only looking at the KIA card for objective information. As this is mostly not indicated, particularly intrapartum and postnatally, occurrence of complications is 'unknown' rather than 'none occurred'.

Due to the dichotomy between government and project area use of antenatal records, it is doubtful whether the problem of duplication will be solved or even be attempted to be solved. The writer strongly discouraged the idea by the project staff to yet design another card as it would be too difficult and time consuming to train and supervise all staff. Furthermore, once the

project ends, the KIA will most probably disappear unless the project has other funds for printing in the future.

Discussion with Dr. Nardho Gunawan revealed that the KMS card together with all other cards which have been designed in Indonesia will be reviewed nationally at the end of Pelita V in 1994, as designing and introducing a new card earlier would be too costly and time-consuming.

Development of risk assessment: This was strongly recommended in a team meeting in March but had not been finalized until the second week of July. However, a decision was made during the final meeting between the writer and Drs. Anna and James. A strip could be added on the KIA card and a stamp has to be made for the KMS and Puskesmas card. This will involve training of all field and research staff and the latter will have to read the information from all possible cards and not only the KIA.

If this risk assessment is not in place soon, it will affect the evaluation considerably in addition to which almost four months have been lost already by delay in this development.

C. Training of Project Staff

The training of the physicians was completed in July. As from August the community midwives will receive weekly training sessions on Tuesday by the senior midwives in Sumedang hospital until December 1992.

It is noteworthy that community midwives have been trained to perform manual removal of placenta during their training and subsequently by Dr. Effendi. They perform this procedure mostly under supervision.

The writer requested that the community midwives be present during perinatal meetings. However, this is not possible because physician and midwives are not permitted to leave the health centre at the same time. A request was made that the midwives be informed of the content of the meeting by the health centre physician.

D. The Health Care Cost Study

The cost study questionnaire is being field tested for the second time. The problems related to interview time and remuneration of the interviewers is known from Dr. Mary Jo Hansell's progress reports and will be looked into by the project team.

Due to pressure of work it was considered taking a sample of the study population only but this would also mean inclusion of a sample of the referral cases. Considering the small number of anticipated referral cases, this option was abandoned.

Dr. Anna would like to go ahead with the cost study. Mr. Yusril together with Mr. Hadyana can handle the data entry but would like to have assistance with the interpretation of data and relevant literature for review. Dr. Anna is pleased to receive Dr. Glenn Melnick for this consultancy as suggested by Dr.

Carl Serrato whose contract with MotherCare has come to an end. Dr. Melnick's involvement needs further discussion between Dr. M. Koblinsky, Dr. Mike Linnan and Dr. Melnick.

E. Social Marketing

Progress has been achieved according to the workplan made between Carrie Hassler Radelet and the project team. Deadlines for transcriptions and translations have been met.

The team is happy to adapt materials from Dr. Peodji who has agreed that her materials will be used. The materials developed by MOH regarding the KMS card, which are not used in the project area will be shown to Carrie.

Mr. Kim Winnard is being welcomed for a two-week consultancy from August 18, 1992 and Mrs. Nannet, anthropologist of Padjajaran University will be available during this time.

Everyone hopes that the launch could take place in October 1992.

III. Conclusions

It was a special experience for the Women's Health Advisor to have the privilege to work with the Staff of the Ministry of Health and the Project Staff in Tanjungsari. The writer is most grateful to Dr. Hedy and her Staff for the excellent arrangements in the field and for the generous hospitality by the family of the Kepala Desa of Gunungmanik.

Appreciation must be expressed to the field Staff for their commitment to the project and for their hard work to improve the services to the population and the women in reproductive age in particular.

A great deal has been achieved in the project so far. It is a complex project with new elements which are pilot tested for the first time in Indonesia. In that regard the project will contribute to the understanding of what works and is useful in an attempt to establish an integrated maternity service and which are the barriers to new ideas and components.

The radio system and the ambulance work. A great deal of training has been done but that is not an end in itself. As everywhere else, ongoing supportive supervision is needed to improve actual care and maintain consistent quality.

Monthly workplans are being made and progress is discussed at the weekly meetings (c.f. workplan for July 1992 in Appendix G)

The complexity is intensified by the fact that the project area is part of the Government Health structure and staff therefore have to comply with government practices, both administrative and clinical. There needs to be a constant dialogue between the two and because the University Staff is mostly tied up in university business, there is hardly any time for field supervision. This then

is expected from the MOH Staff whose responsibility is for a whole Kabupaten of about 1 million population of which Tanjungsari is one-tenth.

When the Directorate of Family Health started the concept of Polindes, it was with the staffing of a community midwife in mind. The Tanjungsari project has developed more Polindes than available community midwives, which means that they are staffed by TBAs. This creates a dilemma regarding normal deliveries. Women have been used for centuries to deliver at home with a TBA - why should they now deliver in the Polindes with a TBA if they have to be referred for complications anyway and cannot be attended in the Polindes. If a community midwife is not allowed to handle more than low risk women in a Polindes, why should the Polindes be staffed with a 4-year trained nurse midwife anyway. These are questions which take time to be answered and this cannot be achieved without active community involvement based on their own perceptions of what these polindes can mean to them and with what kind of staff.

The most urgent issues the project needs to address are:

1. Clarification of use of polindes for antenatal and delivery care based on the community perceptions available in part from the formative research and to be drawn from further meetings between the community leaders, the village committees and the project team.
2. Provision of information on complications and risk factors to Men in the communities. The Kepala Desa are eager to make the Polindes work and want to know what they can change to make them more effective.
3. Teaching of the risk score and clinical supervision of implementation by midwives, kaders and physicians.
4. If at all possible, regular visits by the University Staff to antenatal clinic sessions in the Polindes.

APPENDIX A

CONTACT LIST

CONTACT LIST

INDIVIDUALS AND ORGANIZATIONS

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GOVERNMENT

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Dr. Lemeina--DG
Dr. Nardo Gunawan--FH
Pesawat 3200
Telephone: 5201595/8/9

(Dr. Suaina--ex; new appointment not yet made--Puskesmas)

Dr. Bidi Astuti--Posyandu

Sonia Roharjo Integrated Health/Family Planning
Directorate Gizi (Nutrition)
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414-609
414-693

Litbangkes

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Jakarta Pusat

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414-266-228

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2. Pusat Penelitian Pembangunan Gizi (CDRN)
Jl. Dr. Semern (Semboja).
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331-844

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7. Center for Child Survival (CCS)
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8. Save the Children Federation

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APPENDIX B

PROGRAM OF FIELD VISITS

**JADWAL KUNJUNGAN Mrs. BARBARA KWAST
DALAM RANGKA PELATIHAN PARTOGRAPH**

HARI	TANGGAL	KEGIATAN	PESERTA
Jum'at	03 July 1992	Jam. 07.00 dijemput oleh kendaraan Regionalisasi di Guest House Nyland-Jln Cipaganti Bandung. Selanjutnya melihat kegiatan Polindes Gunungmanik	- Renny - Undang
Sab'tu	04 July 1992	Melihat kegiatan Bidan Desa di Polindes Cijambu	- Bidan Desa Cijambu - Undang
Minggu	05 July 1992	Jam. 19.00 Dijemput oleh kendaraan Regionalisasi untuk menginap di Hotel Kencana Sumedang (1 room single)	- Dr. H. Hedy - Undang
Senin	06 July 1992	Jam. 09.00 RSUD Sumedang Pelatihan Partograph	- Dr. Effendy/Dr. Yanti - Dokter Puskesmas wilayah Tanjungsari dan Dokter Puskesmas dengan Tempat Perawatan
Selasa	07 July 1992	Polindes Sukawangi melihat kegiatan Bidan Desa di Polindes. <i>X</i> <i>Delivery Polindes Harajaya.</i>	- Dr. Lelly - Bidan Desa Sukawangi - Kader Polindes
Rabu	08 July 1992	Jam. 07.00 s/d 09.30 Melihat kegiatan Bidan Desa di Desa Genteng Jam. 09.30 Di Puskesmas Tanjungsari pertemuan rutin Jam. 11.00 Pelatihan Partograph	- Dr. Djarniah - Bidan Desa Genteng - Kader Polindes - Dr. Anna / dr. James - Dr. Hedy/Dr. Yanti - Dokter-dokter Pkm - Dr. Puskesmas wilayah Tanjungsari - Bidan Desa Wilayah Tanjungsari
Kamis	09 July 1992	Jam. 11.00 Pelatihan Partograph Polindes Ciptason	- s. d. a -
Jum'at	10 July 1992	Jam 8.00 sda Polindes Hourgombang. <i>X</i>	- s. d. a -
Sabtu	11 July 1992	Direncanakan untuk melatih Bidan RSUD Sumedang	
Senin	13 July 1992	Pelatihan kader di Pkm. Tanjungsari (KR Polindes) <i>X</i>	- s. d. a -
Senin	20 July 1992	Evaluasi hasil pelatihan (RSU Sumedang) <i>X</i>	- Dr. Effendy/Dr. Yanti - Dr. Hedy dan Dokter-Dokter Puskesmas

Acara tambahan lain :

pelatihan RR Polindes oleh Dr. Swandari yang harus dihadiri oleh :

1. Kepala Desa
2. Kader Polindes
3. Bidan Desa
4. Kepala puskesmas

Dengan Jadwal sbb:

- 07 July 1992 Puskesmas Gilembu
- 11 July 1992 Puskesmas Sukasari
- 13 July 1992 Puskesmas Tanjungsari

JADWAL KEGIATAN Dr. BARBARA KWAST
13 - 20 - Juli 1992

HARI	TANGGAL	JAM	KEGIATAN	PENDAMPING	KETERANGAN
Senin	13-7-92	08.00 - selesai 09.30	Tiba dari Bandung di Gunung manik Polindes Genteng Pertemuan Kepala Desa	- Dr. Djamilah - Yudi - Bidan Entang	Undang siap jam 08.00 di Gn. manik
Selasa	14-7-92	08.00 - selesai	Polindes Sukawangi	- Bidan Eri - Yudi	Undang
Rabu	15-7-92	08.00 - selesai 09.30 - selesai	Kegiatan di Polindes Gunungmanik atau Puskesmas Tanjungsari Pertemuan Routine di Puskesmas Tanjungsari	- Dr. Quin - Agnia - Yudi - Dr. Lelly - Dr. Quin - Dr. Djamilah - Dr. Hedy - Dr. James, - Dr. Anna	Undang Undang
Kamis	16-07-92	08.00 - 10.00 10.00 - selesai	Polindes Sukarapah Ke Kecamatan Damarajat dan Wado	- Bidan. Ida. H - Dr. Lelly - Dr. Hedy	Undang
Jum'at	17-7-92	08.00 - selesai	Polindes Sindangsari Farewell lunch	- Dr. Djamilah - Yudi, semua Dokter, Bidan keluarga Kades Gunungmanik, dan staf Regionalisasi Sumedang	Ambulance Tanjungsari Rencana di Rium Panyileukan
Sabtu	18-7-92	08.00 - selesai	Perpisahan dengan Kumu Gunungmanik Mengikuti supervisi Polindes Kembali ke Bandung	- Dr. James - Dr. Yanti - Dr. Hedy	Acara dapat berubah bila evaluasi Partogram dilaksanakan tgl, 18-7-92

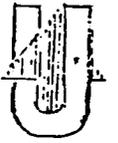
APPENDIX C

PARTOGRAPH

APPENDIX D

MAP OF TANJUNGSARI

MAB. SUBANG

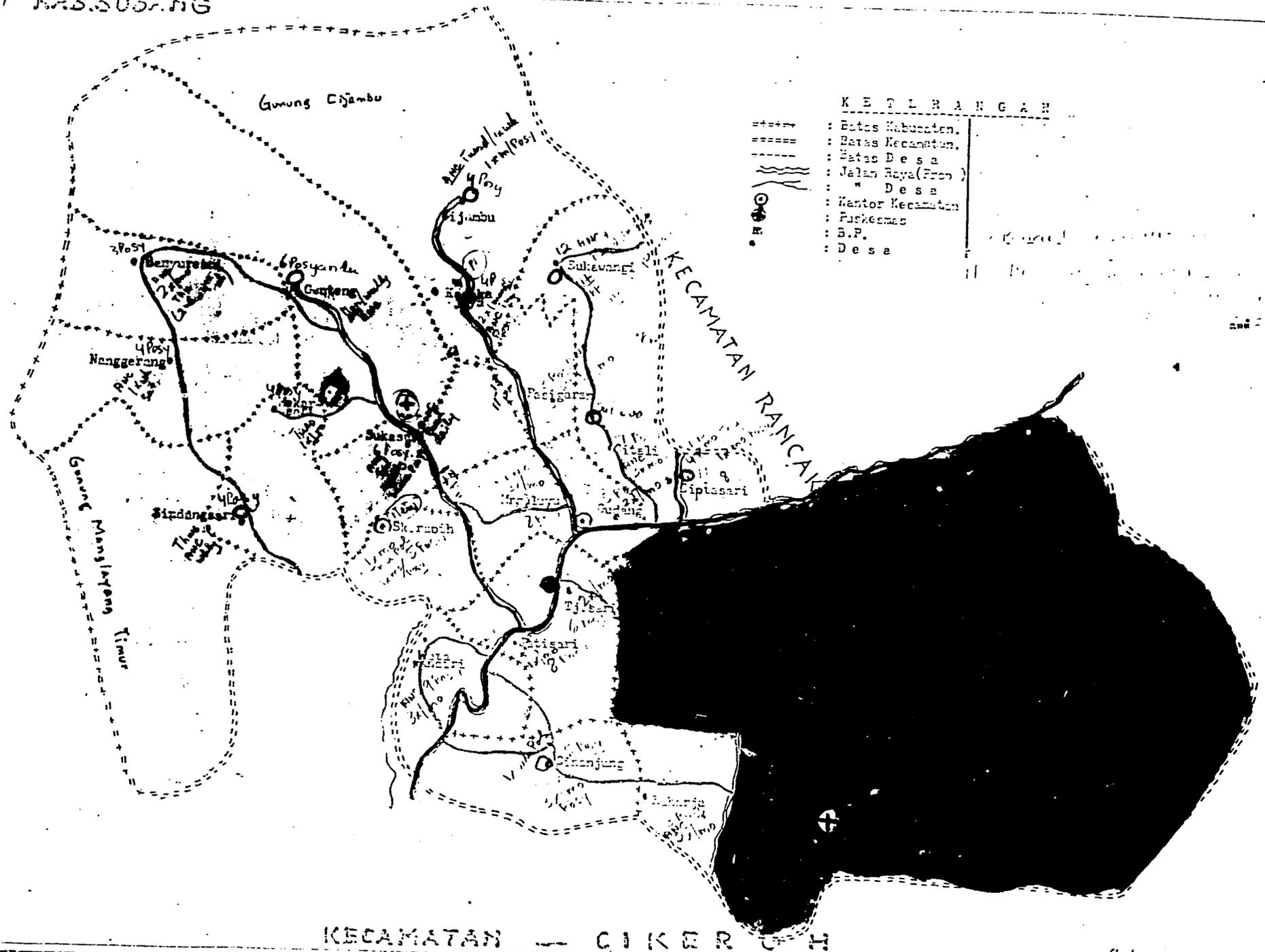


Gunung Cijambu

KEP. L. R. A. N. G. A. H

- : Batas Kabupaten.
- : Batas Kecamatan.
- : Batas Desa
- ==== : Jalan Raya (Provi)
- : " " Desa
- ⊙ : Kantor Kecamatan
- ⊙ : Puskesmas
- ⊙ : S.P.
- ⊙ : Desa

KAB. BANDUNG



KEC. SUMEDANG SELATAN

KECAMATAN — CIKERUH

Skala 1 : 50.000

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APPENDIX E

POPULATION DATA OF 27 VILLAGES IN TANJUNGSARI

TANJUNGSARI
NUMBER OF POPULATION

APPENDIX E

No.	Name of Puskemas	Name of Village	Number of population
1.	TANJUNGSARI	1. Tanjung Sari	5334
2.		2. Jatisari	4414
		3. Gulang	4269
		4. Pasigaran	2951
		5. Ciptasari	3582
		6. Citali	3422
		7. Sukawangi	4528
		8. Margaluyu	4164
		9. Sukarapih	2912
		10. Kutanandiri	5181
		11. Cinanjung	4393
		12. Baharja	3952
			49102
2.	SUKASARI	1. Sukasari	3477
		2. Garbang	4337
		3. Banyuwandi	1999
		4. Mangarang	2232
		5. Sindangsari	2883
		6. Nekarasari	2412
		7. Kadakajaya	2781
		8. Giljambu	3450
			23171
3.	GILJAMBU	1. Giljambu	2185
		2. Haurngombong	3078
		3. Gunungmanik	3882
		4. Margajaya	5499
		5. Gimerias	2507
		6. Cinanggung	2184
		7. Nekarbakti	3351
			22486
			94999

APPENDIX F

ISSUES OF KEPALA DESA MEETING

MEETING OF VILLAGE HEADS AND RESEARCH TEAM - 13.7.92

Problems

Team:

- Why do the people rarely use Polindes?
- Location of Polindes ----> Polindes at TBA's house
 - Cijambu
 - Senteng
- User of Polindes ----> Polindes only used by village people from where the polindes is.
- Misunderstanding about Polindes ----> Information not sufficient.
- Cost ----> Polindes cost is too expensive.
- Information ----> People do not have enough information about Polindes. No promotion yet.
- Management

Desa:

- Manager ----> Who will be responsible in village?
- Cost ----> Not yet solved
- Role of the private Bidan ----> Genteng/Sukasapi/Sukasari: Paraji who bring patients to Bidan Dudjuh do earn money.
- Radio
- Paraji from out of village.

Desa Sukarapih: - No cooperation between the TBA of different desas
- The people (preg. women) who go to Posyandu do not come to Polindes ----> schedule

Desa Ciptasari: - Go to Polindes is not effective - too far for delivery
- Distance
- Social Behavior ----> social change

Desa Genteng: - Work relations between Paraji and Private Bidan
- Referral from Paraji is not to Polindes but to the Private Bidan.

- D. Cijambu: - Target of Polindes:
- Time
- Location of Polindes at the Paraji's house.

Desa Gunung Manik:

- Instruction not only for TBA, but also for women
---> Instruction for man still difficult --> time

- Desa Sukawang: - Locations of Polindes in the border of the village so the forest people do not come to the Polindes but to the puskesmas/Private Bidan at the other District

- Desa Margajaya: - Kader/Picket feels bored ---> Polindes open everyday for antenatal care
- Women also work at the farm - cannot stay every day at Polindes
 - Punishment for women who didn't give birth at Polindes (birth certificate!)
 - Radio for chief of village ---> no budget

Desa Haurongbong:

- Instruction for neighbour village ---> meeting not only between 10 village who have Polindes but with all (27) villages at the district

MEETING 29 JULY - DISCUSS COST

APPENDIX G

PROTOCOL FOR POLINDES

Protokol For Maternal And Child Health Care At The Birthing Huts

1. During Pregnancy.

- a. Take a complete history including :
 - last menstrual period
 - Complaints (mausea & vomiting, headaches, blurred vision, dyspnea, edema).
 - past obstetrical history
- b. Routine obstetrical examination. This should include :
 - general condition, nutritional status, anemia
 - blood pressure
 - weight
 - protein uria
 - edema
 - fundal height
 - fetus position
 - fetal heart beat
- c. Immunization
TFT should be administered twice; 20 weeks pregnancy and 28 weeks pregnancy.
- d. Motivation for breastfeeding and Family Planning
- e. Information on nutrition, adequate rest etc during pregnancy.
- f. Schedule for antenatal visits :

once a months	till 6 months
every 2 weeks	till 8 months
every week	till delivery

Note : When conditions as mentioned below are found the women should immediately be referred to the Health Center.

- high blood pressure (normal systolic pressure < 140 mm Hg)
- diseases complicating pregnancy such as, Diabetes, heart disease, kidney diseases etc.
- fever
- anemia
- malposition
- antepartum bleeding
- women with a poor obstetrical history
- inadequate weight gain) see gravidogram in
- fundalheight below lower limit) Mother and Child Card

2. During labour and delivery

Attention should be paid to determine wether a women is truly in labour.

Signs of labour are :

- a. Contractions which increases in frequency.
- b. Pains do not disappear when walking around

- c. Show (blood stained mucus) Note : there should be no fresh blood noticeable !
- d. Rupture of membranes followed by contractions. (when a rupture of the membranes occurs without contractions, the women should be referred to the Health Center).

During labour the following signs and symptoms should be noted:

- general condition, alertness
- nutritional status
- presence or absence of edema
- contractions; frequency, duration and intensity (normal contractions should increase in frequency and intensity eg till every 2-3 minutes, lasting 45-60 seconds).
- passing of water (rupture of membranes)
- fetal heart beat (normal : 120-160 beat for minute)
- temperature
- blood pressure

Notice : When the following conditions events occur the woman should be immediately referred :

- when bleeding occurs before birth of the baby (antepartum)
- When fever occurs during labour
- When the membranes rupture before contractions are frequent enough
- When duration of labour exceeds 18 hours for primi-gravidas and 12 hours for multigravidas
- Premature labour (pregnancy less than 37 weeks)
- When women complain of shortness of breath.
- When signs of pre-eclampsia are found (high blood pressure with either edema or protein uria).
- When malposition is found (breech as well as transverse)
- When after birth of the baby the placenta is retained for more than 15 minutes.
- When bleeding occurs before or after birth of the placenta.
- When women complain of weakness and dizziness post partum.

Conclusion :

Deliveries to be handled and completed at the Birthing Huts are low risk cases. All other cases are to be referred to the Health Center.

Specification for labour and delivery :

First stage of labour : from beginning of labour till full dilation of the cervix. The following should be carried out.

- Blood pressure reading and taking of pulse can be done once in every 2 hours.
- Fetal heart beat should be monitored every 15-30 minutes.
- Contractions should be monitored every 15 minutes and should include the following : frequency, duration and intensity
- Women should be in a lateral position (preferably left lateral)

Signs that labour is progressing well are :

- a. contractions increase in frequency and intensity
 - b. blood stained mucous increases (Note : no blood should be seen to flow from vagina !)
- As long as no complication occur during the first stage of labour the attendants attitude should be one of expectation.

Second stage of labour : from time of full dilatation to birth of fetus/baby

Signs of full dilations are generally :

- rupture of the membranes
- women feel the urge to push/bear down
- bulging of perineum
- opening up of the vulva

At this stage of labour the fetal heart beat should be monitored every 10 minutes

The attendants attitude should be one of preparedness while monitoring progress.

After birth of the baby the umbilical cord should be tied and cut. Mucus should be sucked out till normal breathing sounds or normal crying sounds are heard.

The baby is dried and wrapped in dry linnen/clothes. The baby preferably should be handed to the mother for immediate suckling.

Notice : Babies should not always have to be bathed immediately after birth. When the baby appears small, it should be weighed immediately and when found to be less than 2500 gram, the baby should be referred to the Health Center. Beware of hypothermia while transporting small for data baby's.

Third stage of labour : from birth of baby atill delivery of placenta

Normally a placenta should be expelled shortly after the baby's birth. When a placenta shows no signs of seperating 15 minutes after delivery of the baby, the women should be referred to a midwife or Health Center doctor.

Signs of seperation of the placenta are :

- lengthening of the cord outside the vagina
- the fundus of the uterus is raised
- bleeding occurs

The attendant should test for seperation of the placenta by gently pulling on the cord (No force should be used !) when seperation has occurred the placenta should be delivered by pulling on the cord with the right hand while using the left hand to support the lower uterine segment (no pressure should be applied to the fundus of the uterus !)

After delivery of the baby & placenta make the patient empty her

blodder

3. The puerperium

Immediately after delivery of the baby and placenta the following examinations should be done :

- a. inspection of the placenta (its completeness)
- b. fundul height and uterine contraction. Normally right after birth the uterus fundus should be below the umbilicus and firmly contracted.

When the uterus is soft external massage of the tuterus should be attempted. When this fails, the women should be referred.

- c. measurement of blood pressure and taking of pulse
- d. determine amount of blood loss, when noted to be in excess of 500 cc the women should be referred.
- e. determine wether patient is anemic note colour of conjunctiva, langue and palms,
- f. inspection of perineum for tears or bleeding

If the patient's condition is stable and she is able to walk, women may leave the Birthing Hut after 12 hours. Before sending women home check their blood pressures and pulse and check for signs of bleeding.

Motivation of familiy planning

Motivation shoul begin during antenatal visits but post-partum is a good time to remind women of the need for proper Family Planning.

Recording and reporting:

Details concerning labour and delivery should be entered in the long book with special attention to complications.

Notice :

During labour and early puerperine women should take enough food and drink. During labour meas should be light and easily digestable.

Home visits

Home visits should be carried out preferably once every day for the first 3 or 4 days post-partum.

The following should be noted and looked for :

- signs of bleeding. Bleeding n the puerperim should be slight and disappear afer gu \pm 7 days.
- infection is often signalled by foul smelling discharge
- temperature

- signs of lactation. Normally breast milk should be available after 2-3 days post-partum. When signs of breast engorgement are noted women compresses should be applied with gentle massage. when signs of infection occurs, the woman should be referred.
- whether the uterus is palpable. Normally the uterus should rapidly decrease in size and not be palpable after 7-10 days.
- signs for infection of the perineum/vulva

PROPOLIS.ART/REG/WF01/01.01.92

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Timetable Regionalisation Activity In 1992 Year

Activities	Bulan											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Okt	Nov	Des
A. Design Workplan	(finished in 1991)											
B. Develop Executive Committee	(finished in 1991)											
C. Collection of Statistical data Research Area	(finished in 1991)											
D. Measurements Tools												
-Print Mother + Children cards	-----	xxxxx	xxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----
-Print Report cards	-----	xxxxx	xxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----
E. Improvement of Health Infra - Structure												
-Radios	xxxxxx	xxxxxx	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----
-Ambulance	-----	xxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
F. Development of Birthinghuts + purchase of Equipment	(finished in 1991)											
G. Selection of Cadres and Interviewers	(finished in 1991)											
H. Testing of Health Care Providers	(finished in 1991)											
I. Perinatal Meetings												
-Health Dept. Staff + Research team	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
J. Training of H.C. Staff (Continuous education)												
-MD's	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
-Midwives	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
-Birthinghut staff	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
<u>Design of protocols</u>												
-Birthinghut	xxxxxx	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-Health Center	xxxxxx	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-District Hospital	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<u>Design Training Protocols</u>												
-TBA's	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-Village midwives	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-H.C. Doctors	xxxxxx	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-H.C. midwives	xxxxxx	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
K. Regular Meetings (monthly) Supervisor + TBA	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
L. Social Marketing												
-Development / translation of questioners	xxxxxx	xxxxxx	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----	-----
-Research Activities	-----	xxxxxx	xxxxxx	xxxxxx	-----	-----	-----	-----	-----	-----	-----	-----
-Social Marketing	-----	-----	-----	-----	-----	-----	-----	-----	xxxxxx	xxxxxx	xxxxxx	-----
M. Health Economics												
-Design questionnaire	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
N. Evaluation												
-Pregnancy cohort	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
-Birth cohort	-----	-----	xxxxxx									
-Surveillance Program	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Monitoring and Sweeping	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx

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DEPARTMENT OF EDUCATION AND CULTURE
SCHOOL OF MEDICINE PADJADJARAN UNIVERSITY
HASAN SADIKIN GENERAL HOSPITAL

HEALTH RESEARCH UNIT

J. Pasirkaliki 100 Bandung 40131, Indonesia Telp (022) 87218, 84963 - 55 (ext. 262), Fax (022) 87218



**Criteria for priority allocation.
Prepartum morbidity.**

Health problem	Extent x 4	Serious ness x 4	Preven table x 2	Local concern x 3	Time trend x 1	Total Score.
No weight incr.	4				1	5
Vaginal bleeding		4		3		7
Fever > 3days		4		3		7
Cough & dysp	4					4
Edema	4					4
No Tetanus Imm.				2	2	4

**Criteria for priority allocation.
Delivery morbidity.**

Health problem	Extent x 4	Serious ness x 4	Preven table x 2	Local concern x 3	Time trend x 1	Total Score.
Twins	4					4
Breech		4				4
Prolonged labour	4	4	2			10
Massive bleeding	4	4		3		11
Fever during labour	4	4	2			10
Loose discharge	4	4				8
Convulsion	4	4	2			10

**Criteria for priority allocation.
Postpartum morbidity.**

Health problem	Extent x 4	Serious ness x 4	Preven table x 2	Local concern x 3	Time trend x 1	Total Score.
Massive bleeding	4	4		3		11
Fever postpartum	4	4	2			10
Loose smelling discharge	4	4				8
Anemia postpartum	4		2			6
Convulsion postp.		4	2	3		9

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Criteria for priority allocation.
Pregnancy history

Health problem	Extent x 4	Serious ness x 4	Preven table x 2	Local concern x 3	Time trend x 1	Total Score.
Age mother	4			2		6
parity	4			2		6
birthinterval	4					4
education	4					4
occupation	4			2		6
previous stillbirth	4	4			3	11
previous SC.		4	2			6
previous bleeding.	4	4				8
Antropometri<	4					4

Priority ranking

Pregnancy history

Health problem	score
previous stillbirth	11
previous bleeding.	8
previous SC.	6
Occupation	6
age	6
parity	6
education	4
birthinterval	4
anthropometri	4

Prepartum morbidity

vaginal bleeding	7
fever > 3days	7
No tetanus vac.	5
no weight incr.	5
cough & dyspnoe	4
edema	4

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Worksheet, Priority RAS

Delivery morbidity

massive bleeding	11
prolonged labour	10
fever during labour	10
convulsion	10
Foul discharge	8
breach	4
twins	4

Postpartum morbidity

massive bleeding	11
fever postpartum	10
convulsion postpart.	9
foul smelling discharge	8
anemia postpartum	6

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Comments - Discussed and changed with Dr. Hedy and bidans on 10 July 1992 by Dr. B.E. Kwast

PROTOCOL FOR MCH CARE AT THE BIRTHING HUTS

1. During Pregnancy

b. Routine obstetrical examination

- proteinuria

Comment: This test is not available and not done at the Polindes.

You may change to: if raised blood pressure and oedema, refer to Puskesmas for further examination and urine test for protein.

- fundal height

Comment: At present there is no space on KIA to record fundal height in weeks. Could be recorded on KIA in column for month.

Suggestion: Make a poster for Polindes of fundal heights - would be good for both TBA and dukun.

- fetal position

Comment: Change to fetal presentation.

- fetal heart beat

Comment: No space on KIA to record.

f. Schedule for antenatal visits

Once a month until 6 months, every 2 weeks until 8 months, every week until delivery

Comment: If the woman came, this would mean 15 visits! Please change to what is routine in Indonesia and the midwives' routine: Once a month until end of 7 months (= 28 weeks), every 2 weeks until 9th month (= 36 weeks), every week from 36 weeks until delivery. Please change also in Puskesmas protocol.

Note:

high blood pressure (normal systolic pressure <140 mmHg)

Comment: a blood pressure of 130/90 or higher, or a rise of 30 mmHg systolic and 15 mmHg diastolic compared to a previous reading.

Many women have a B/P of 90/60 and for them a rise to 120/80 is significant. The midwives are familiar with this concept.

Add: Women with a height of 140 cm and less.

Page 2, top. Please add:

- e) Rupture of membranes for 7 hours, start antibiotics (Dr. Effendi's routine).

During labour the following...

Under blood pressure,
please add: - passing urine every 2 hours (encourage the mother to pass spontaneously)

Notice:

- When membranes rupture before contractions are frequent enough
add: e.g. 7 hours
- When duration of labour exceeds 18 hours for primigravidas and 12 hours for multigravidas
Please change to: Exceeds 12 hours or no progress in dilation over 4 hours in spite of good uterine contractions
- When after birth of the baby the placenta is retained for more than 15 minutes without
Please add: bleeding.

Comment:

The above paragraph and the next paragraph need expansion please according to Dr. Effendi's teaching of the midwives:

- a) Bleeding before the placenta is delivered:
- rub up a contraction
 - IV infusion with 10 U of oxytocin
 - Manual removal of placenta with doctor
- b) Bleeding after the placenta is delivered:
- Ergometrine 1 amp I.M. +
 - Ergometrine 1 amp I.V.
 - Rub up contraction
 - Bimanual compression of uterus
 - I.V. infusion
 - Empty bladder if necessary.

(N.B. 500 mls or more = post partum hemorrhage = 3 sarongs soaked)

Specification for labour and delivery

- Fetal heart should be monitored every 30 minutes at the end of a contraction
- Contractions should be monitored every 30 minutes (if a partograph is used it takes 10 minutes anyway).

Page 3

Sentence after b: As long...

Please change to: Labour in the Polindes should not exceed 12 hours or no progress in dilation over 4 hours in spite of good uterine contractions.

Second stage:

This should have a time limit:

If full dilation is assessed by the midwife, the multipara should deliver in 1/2 hour and the primigravida in 1 hour. The same applies to the TBA if signs of second stage are obvious and the head is distending the pelvic floor.

Page 4

3. The puerperium

After f.

The women may leave the Polindes after 2-6 hours depending on condition and time of day. So far women have not stayed 12 hours and to make this a rule may not be attractive to women.

Home visits

-temperature: change to fever

Page 5

Before the sentence on lactation, please add:

Put the baby to the breast as soon as possible within 1-2 hours after birth and encourage regular breastfeeding. Colostrum is excellent and enough.

AB

APPENDIX H

PROTOCOL FOR HEALTH CENTRE

**PROTOCOL OF OBSTETRICAL AND NEONATAL CARE
AT PUS. KES. MAS LEVEL**

D
R
A
F
T

REGIONALIZATION OF PERINATAL CARE IN TANJUNG SARI

DECEMBER 1991

ANTENATAL EXAMINATION

A. SCHEDULE OF ANTENATAL EXAMINATION

1. Normal pregnancy:

- Once a month until 26 weeks.
- Every 2 weeks until 36 weeks.
- Every week until 41 weeks.

2. Pregnancy with medium risk:

- depending on necessity

Examples: increase of blood pressure during pregnancy of 28 weeks can be checked again one week later or the presence of a suspected I.U.G.R. (Intra Uterine Growth Retardation), more frequent examination can be done.

3. High risk pregnancy.

- should be referred to the hospital immediately.

B. PREGNANCY EXAMINATION

1. Anamneses (history) on:

- Duration of pregnancy (last menstrual period, when was the movement of the child first felt)
- symptoms (complaints, especially headache, blurred vision, edema, dyspnea.

2. Physical examination

- General condition: such as nutritional status, conjunctiva anemic or not, blood pressure, body weight, edema +/-
- Obstetric: such as fundal height, presentation of the baby, position (Leopold I-IV), fetal heart beat.
- Pelvic examination should be done:
 - a. in primiparas: if in the last month of pregnancy the head of the fetus does not yet enter the pelvic inlet, women with a height of < 140 cm.

- b. in multiparas with an unfavorable obstetrical history.
- c. in women with abnormal bodyshape, scoliosis, poliomyelitis, etc.

3. Laboratory examination.

At first visit the Hb, urine, TPHA, HbsAg, should be examined. Other examinations as indicated: i e :

- Reduction + -----> examine GTT
- Anemia -----> examine periferal blood
- Subsequently : - examine Hb every 2 months
- examine urine for protein at every visit.

4. Immunization

- TFT shots are given 2 X as scheduled

5. Management of cases with various symptoms

- a. Nausea and vomiting. Slight nausea does not need to be treated. Vomiting can be overcome by treating patients with Mediamer B6 or primperan. If hyperemesis occurs the patient should preferably be referred to the hospital.
- b. Slight anemia can be treated with Fe (iron) preparations, if the anemia is severe the stool and peripheral blood should be examined.
- c. Abnormal presentation. External version can be done after 28 weeks of pregnancy, if no contraindications are present. If unsuccessful ---> refer to the District hospital.

Contraindications for external version are :

- Previous uterine operation (C.Section, myomectomy etc)
- Hypertension
- Absolutely contracted pelvis
- The presence of multiple fetuses.

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- d. Suspect/definite intrauterine growth retardation as indicated by fundal height and inadequate weight gain: repeat examination after 2 weeks ---> use the curve on gravidogram: if less than 90 percentile ---> refer. In slight growth retardation ---> advice to take rest, and improve nutrition.
- e. Pre-eclampsia
- If mild pre-eclampsia, give tranquilizer (valium + bed-rest), examine again after one week; if the blood pressure goes up or symptoms such as head ache becomes severe ---> refer the patient .If nausea occurs + vomiting and epigastric pain ---> refer immediately
 - If severe pre-eclampsia ---> refer at once.
- f. Hydramnion
- Is known by the large circumference of the belly, fundal height > ,fetus difficult to palpate, fetal heart beat difficult to auscultate ---> refer immediately .
- g. Hydrocephalus
- Is known from the fact that the lowest part of the fetus does not enter the pelvic inlet, the head is readily palpable ---> immediately refer
- h. Heart disease
- Is known from the history (dyspnea, is quickly tired) and from examination of the mother's heart, if the jugular vein pressure is high ---> refer immediately to Hasan Sadikin hospital (HSH).
- i. Diabetes mellitus
- Is known from the history; is prequently thirsty, hungry, urinates frequently urine reduction test positive, GTT abnormal, the previous babies were large (> 4000 grams) ---> refer immediately
- j. Obstetrical history not satisfactory.
- Repeated miscarriages (3 or more) ---> refer; intra

uterine death ---> more careful and more often examinations, repeated premature deliveries ---> refer during early pregnancy.

Protocol for management of obstetric care at Puskesmas

1. Vaginal hemorrhage
2. Early amnionic rupture
3. Pre-eclampsia
4. Breech and transverse presentations
5. Prolonged labor
6. Premature delivery
7. Post-partum hemorrhage
8. Post-partum infection

Protocol for management of new born baby

1. Preterm infant and low birth weight infant
2. Difficulty in breathing (asphyxia)
3. Hypothermia
4. Hypoglycemia
5. Sepsis.

Protocol for management of vaginal bleeding in early pregnancy

- Determine whether pregnant /not (delayed/ no period, uterus enlarged and soft). If slight hemorrhage, spotting ---> refer for USG
- USG result: blighted ovum ---> curet immediately
- USG result: pregnancy still viable ---> hospitalize for a few days.

Protocol for management of vaginal bleeding during pregnancy due to placenta previa and placental abruption

What is meant by antepartum bleeding. .

Vaginal bleeding during delivery caused by low implantation of the placenta or release of placenta before birth of the child.

What are the symptoms

1. Low position of the placenta
 - bleeding (slight or excessive)
 - not painful
 - soft uterus on palpation (no tension)
2. Placenta detached early (solutio placentae)
 - bleeding (slight or excessive)
 - painful
 - uterus tense on palpation .

What should be asked of the patient ?

1. When did the bleeding start ? Was the bleeding little by little or did you bleed very much ?
2. Was it painful ? If yes, where was it ? When did the pain start ? Was it really very painful ?
3. Was the patient already examined, is the uterus soft or tense on palpation.
4. Has the patient ever had the same experience during a previous delivery

What should be examined ?

1. External examination; is there any vaginal bleeding present and how much.
2. Palpate the uterus to know whether the uterus is soft or tense.

Criteria for referral

Any bleeding during pregnancy is not normal. Refer every pregnant woman with bleeding before delivery (antepartum bleeding).

Management and treatment.

Referral

1. Explain the condition of the patient to the relatives/ family especially the danger if she is not treated properly
2. Note the heart beat, bloodpressure and body temperature of the patient.
3. Give NaCl / dextrose intravenously.
4. Refer to the hospital with the referral form.

If referral is refused

1. Explain to the family that the woman is pregnant and that the mother and baby are in danger if she does not go to the hospital .
2. Advice total bedrest.
3. Try to look for the cause of bleeding. Examine in speculo, (is the bleeding from the cervix ?), Palpate the fornices.

Facts that should be considered

If during pregnancy vaginal bleeding occurs, both mother and baby are in danger. Hence the following need attention:

1. Examine and note the heart beat and movements of the fetus regularly to know whether it is still alive
2. Measure the blood pressure and heart beat of the mother to know whether hypotension occurs because of bleeding
3. Delivery should occur in the hospital
4. Look immediately for transportation to transport the patient to the hospital and continue observation of the patient. If

signs of hypovolemic shock are present, attempt stabilization (intravenous drip, patient's position). Try to get a blood donor who is willing to go with the patient.

Protocol of patient management with Premature Rupture Of the Membranes(PROM) .

What is meant with premature rupture of the membranes ?

PROM is a rupture of the amnionic membranes causing amnionic fluid flowing/ escaping from the cervical os before labor starts or before a cervical opening of 3 - 4 cm is achieved.

What are the signs and symptoms of this occurrence.

1. Fluid escaping from the vagina
2. Fluid can be clear, pinkish, yellowish, green or brown in color
3. The fluid is leaking continuously or only when the women walks, or changes her position from sitting to standing, lying down or when bearing down .
4. Fever (not always present) may be present when infection occurs.

What should be asked of the patient ?

1. Does she feel the flow of much fluid ?
2. Does she feel a continuous leakage of fluid or only when she walks, changes her position from sitting to standing, lying down or when beaing down.
3. Does she feel as if she wants to urinate and is unable to resist ?
4. What is the color of the fluid, clear, yellowish, brown, green or pink ?
5. Does she feel she has a fever ?

What should be examined

1. Examine externally (without internal examination) in case of a preterm pregnancy to know whether fluid is escaping, estimate the amount/volume and note the color, is it clear, yellow, brown, green or pink.

To determine whether the fluid is amniotic fluid or urine, test the fluid with litmus paper :

if the litmus becomes blue ---> amniotic fluid

if the litmus becomes red ---> urine

Note : If there is bleeding, this test is of no benefit.

If it is a full term pregnancy, internal examination is permitted.

2. Determine the body temperature of the patient.

Criteria for referral

Refer to the hospital:

1. Rupture of the amniotic membranes 6 hours or more and no signs of labor occur (discomfort starting in the fundal region, radiating over the uterus, through to the lower back)
2. Whenever fever is present
3. The baby does not move
4. The presence of signs of fetal distress.

Management and treatment of a premature pregnancy with PROM

1. Inform/explain to the family the danger of early rupture of amniotic membranes
2. Advice total bedrest (the patient should lie down, danger of umbilical cord prolaps)
3. Visit the patient at home regularly
4. Give antibiotic for 3 days.

Management of a term pregnancy with PROM

Observe till amniotic membranes are ruptured up to 6 hours; if uterine contractions do not occur ---> refer to the hospital.

Problem that needs special attention

If the amnion membrane ruptures prematurely, infection and prolapses of the umbilical cord may occur. Both situations may cause the mother and child to be in danger, for the child it may cause death and for the mother infection may occur.

Protocol of pre-eclampsia management

What is called pre-eclampsia

It is hypertension as a result of pregnancy, with a systolic pressure of 140 or more, diastolic of 90 mm of Hg or more or an increase of 30 mmHg systolic higher than normal blood pressure or an increase of 15 mmHg diastolic higher than normal in a patient accompanied with edema and or protein-uria.

What are the signs and symptoms

1. Elevation of blood pressure (may be the only sign ---> in the beginning)
2. Edema (swelling) of hands, face and both legs
3. Head ache
4. Dizziness or blurred vision
5. Nausea, vomiting or epigastric pain
6. Protein uria.

What should the patient be asked ?

1. Does she feel swollen ? Where ? How did it start ?
2. Does she have head aches ? Since when ?
3. Does she have a blurred vision or dizziness ?

4. Does she have nausea, vomiting and epigastric pain ?
5. Did she have high blood pressure before she became pregnant or during previous pregnancies ?
6. Does she suffer from chronic hypertension and has she been examined/treated by a physician ?

How should the patient be examined ?

1. Measure her blood pressure (if high, repeat in 1 - 2 hours to confirm whether her blood pressure remains high)
2. The systolic blood pressure is elevated by 30 mmHg or more or the diastolic pressure rises 15 mmHg or higher than normal.

Management/treatment

Procedure of referral

1. Explain everything about pre-eclampsia to the patient's family
2. Refer to the hospital with the referral form
3. Monitor the patient if she is discharged from the hospital.

If referral is refused

1. Total bedrest as much as possible (lying down on the left side).
2. Take fluids as much as possible (avoid coffee, tea or coca cola). The best are fruit juice, lemon juice with honey or milk
3. High nutritional food, such as nuts, eggs, meat, milk and vegetables
4. If the patient shows severe pre eclampsia signs she should be preferably monitored at the Puskesmas before referring to the hospital. Examine regularly for the presence of signs of dizziness, blurred vision, vomiting, epigastric pain or convulsions

5. If severe pre-eclampsia signs occur, treat with:
- magnesium sulphate
 - antihypertensives if the systolic pressure is > 180 mmHg or diastolic pressure > 110 mmHg.

Special attention should be paid to the following

1. If a pregnant woman (during pregnancy, labor or postpartum) has convulsions, this means that the mother and child are in danger and should be referred to the hospital. Referral should preferably be done before convulsions appear. But if possible convulsions should be prevented, because this will be much better
2. It is very important to measure the blood pressure of all pregnant women during every visit. This will help us to recognize pre-eclampsia at an early stage.

Protocol for management of premature labor

What is called a premature labor ?

The occurrence of uterine contractions causing opening/dilatation of the cervical canal at a gestational age of less than 37 weeks.

What are the signs and symptoms ?

Regular (every 3 - 4 minutes) uterine contractions of at least 45 seconds duration.

Important to note:

If in true labor the uterine contractions become stronger and more frequent when the mother is walking.

What should be asked of the patient ?

1. When is the delivery estimated ? Is the mother sure of her last period ?
2. Ask everything on the premature rupture of the membranes
3. Uterine contraction: when did it start, does it occur frequently, is it accompanied by severe pain ?
4. Is there any bleeding ? If so , how much ?
5. Ask the patient about her previous pregnancies, (has she ever had premature pregnancy or a child that died when less than 28 days of age ?).

Examination of the patient

1. Palpate the uterus, are contractions palpable, measure and note the strength of the contractions.
2. Presentation of the fetus (is it a normal presentation or malpresentation, is it a singleton or multiple pregnancy
3. Measure the fundal height to ascertain the gestational age
4. Measure and note the fetal heart rate
5. Examine (externally) the vagina to see whether amnionic fluid or blood is leaking.

Criteria for referral

If pregnancy is less than 34 weeks, refer to the hospital

Management and treatment

Procedure of referral:

1. Explain the problem to the family of the patient
2. Refer with referral form

If referral is refused

1. If abnormal presentation or multiple pregnancy is present convince the family to accept referral to the hospital
2. Instruct the mother :
 - to take rest (lying down) and drink as much as possible
 - stress the family on the care of a premature newborn (see note on the care of premature baby) and explain :
 1. do not bath the baby immediately
 2. put the baby to the breast immediately if she can suck
 3. keep the baby's body temperature constant, prevent becoming hypothermic.
 4. if the baby is very small, convince the family to transfer the baby to the hospital to obtain proper examination and treatment.

Facts that need special attention

Pay attention that premature babies have a high risk for sepsis, hypothermia and hypoglycemia. Thus, information /explanation to the family is very important.

Protocol for abnormal presentation

What is called an abnormal presentation ?

When the baby is not in an occiput presentation.

What are the signs and symptoms ?

- The movements of the fetus are palpable below the umbilicus or in the lower part of the belly

- The heart beat of the fetus is around the umbilicus

What is needed to be asked to the patient ?

Where does she feel the fetal movements ? (if the baby is in breech presentation the mother usually feels the fetal movements in the lower part of the belly or in a region below her umbilicus).

The patient needs to be examined on the followings:

1. Measure the fundal height
2. Palpate the uterus to determine the fetal head :
 - If it is in breech position:
the head is in the upper part of the uterus (if in a normal/occiput position the breech/small parts of fetus are palpable).
 - If the fetus is in a transverse position:
the fetus is in a horizontal position, causing the mother's belly to be more broader and the fundal height less than usual.
The fetal head is palpable on one side, at the right or left side.

Referral Criteria

Refer immediately to the hospital for delivery if breech presentation is present in a primipara or transverse presentation when the pregnancy is 8 months (34 weeks) or more.

If referral is refused :

1. If abnormal presentation is present, try to convince the family to accept referral to the hospital
2. Try an external version if the followings, are fulfilled
 - The lower part of the fetus has not descended completely into the pelvis
 - Intact membranes
 - Cervical dilatation < 3 cm.

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Facts that need special attention

A breech delivery puts the baby in danger and mortality is high, especially if the head of the baby can not be delivered. This danger increases with primiparas. In transverse presentation practically speaking the mother will not have a normal delivery. This will put the mother and child in danger :

Mother : rupture of the uterus

Baby : death

Protocol of management for prolonged labor

What is called prolonged labor ?

Labor that takes place for more than 12 hours in multiparas and more than 18 hours in primiparas.

What are the signs and symptoms ?

Painful regular uterine contractions (each 3 - 4 minutes) of at least 45 seconds duration for more than 12 hours in multiparas and more than 18 hours in primiparas.

Important:

If the patient is already in active labor, uterine contractions become more frequent and painful if the mother walks and the mother is not able to sleep during the contractions.

What should the patient be asked ?

1. When did the contractions start ? (what time), how often do the contraction occur ? How long is the duration of the contraction ?

2. When did the amnionic membranes rupture ? (may help to determine the time, because usually the membranes do not rupture before labor starts).

Method of patient examination

1. Examine the frequency, number, duration and strength of contractions.
2. Examine externally to know whether leaking of amnionic fluid or blood is present
3. Determine the baby's presentation (see protocol for abnormal presentation)
4. Do internal examination to determine how the labor is proceeding.

primi : \pm 1 cm per hour

multi : \pm 2 cm per hour

Criteria for referral:

Refer to the hospital if the patient has been in labor for more than 12 hours for multiparas and more than 18 hours for the first child.

Management and treatment.

Referral procedure

1. Explain the danger of prolonged labor
2. Refer immediately to the hospital with the referral form.

If referral is refused

1. Explain the danger of the mother's or child's death
2. Give fluid such as glucose, honey or lemon juice
3. Instruct the patient to walk and rest alternatively
4. Try to deliver by rupturing the membranes
5. Give antibiotics if the membranes have ruptured for > 6 hours.

Facts that need special attention

In the case of prolonged labor, the baby is in danger, thus, the followings should be observed

- baby's heart rate/beats per minute.
- the presence of meconium stained fluid (green or brown colored), this indicates that the baby is in distress and may die soon. The possible complications for the mother are: exhaustion, infection or the formation of a fistula.
- oxytocin administration is not justified before the baby is born.

Protocol for management of postpartum bleeding

What is meant with postpartum bleeding

Excessive bleeding after the baby is born (>500 cc). It may happen immediately or up till 6 weeks after the baby is born. The

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main causes are retention of the placenta, retained placental tissue, the uterus does not contract after the baby is born, or tears of the vagina and cervix.

What are the signs and symptoms ?

1. bleeding
2. blood pressure is dropping
3. rapid pulse
4. the patient feels dizzy and feels sleepy (dozes off)
5. feelings of weakness

What needs to be asked of the patient ?

1. When/what time was the delivery ?
2. How much was the bleeding ?
3. When did the bleeding start ?
4. Was there nausea, did she doze off, was she dizzy ?
5. Was the placenta delivered completely ?

How do you evaluate the patient ?

1. Bleeding from the vagina
2. Is the placenta already delivered ?
3. Was the placenta delivered completely ?
4. What is the blood pressure ?

Procedure for referral

1. First of all immediately look for transportation.
2. Explain the dangers of bleeding to the family
3. Massage the uterus firmly
4. Give IM syntocin or methergin injection to the patient
5. Try to deliver the placenta, by pushing the lower part of the uterus upwards while pulling the umbilical cord slowly in the direction of the birth canal
6. If the placenta is already delivered, massage the uterus until it feels firm and occasionally squeeze it to expel blood clots
7. Give the mother fluid orally, as much as possible during transportation to the hospital
8. Refer to the hospital, complete with all the available information.
9. Give intravenous fluid immediately if possible.

If referral is refused

1. Explain the danger of bleeding for the mother and the baby if they refuse referral
2. Massage the uterus vigorously
3. Give syntocin or methergin injection to the patient
4. Try to deliver the placenta, by pushing the lower part of the uterus upward while pulling the umbilical cord down

ward in the direction of the birth canal

5. If the placenta is already delivered, massage the uterus until it feels firm and squeeze it to expel blood clots
6. Try compressing the uterus bimanually
7. Give the patient fluid orally as much as possible during transport to the hospital or Puskesmas, explain the importance of giving lots of fluid orally which will improve/increase the fluid circulating in the patient's blood which will prevent lowering of the blood pressure and shock.

Facts that need special attention

Postpartum bleeding is very dangerous for the mother, thus, the blood pressure and heart beat of the mother should be monitored regularly. Do not forget that postpartum bleeding is the main cause of maternal death during labor; quick action is needed to prevent maternal death.

Most mothers die of bleeding which occurs within 12 hours after the baby is born.

Protocol for management of postpartum infection

What is called postpartum infection ?

Infection that happens caused by bacterial invasion into the uterine cavity during labor or after labor.

What are the signs and symptoms of disease ?

1. Fever
2. Pain in the lower abdomen (very important, the pain is different from those after delivery)
3. Foul smelling lochia

What needs to be asked of the patient ?

1. When was the baby born
2. Had the mother fever ? When did the fever start ?
3. Was the lower part of the abdomen painful ?
4. Did the mother excrete a foul smelling fluid from the vagina

How to evaluate the patient

1. Examine the lower part of the abdomen to determine pain on palpation
2. Measure the mother's body temperature
3. Examine the external genitals to observe whether there is foul smelling discharge mixed with blood and pus.

Criteria for referral :

Refer to the hospital if the condition of the patient does not improve after 1 - 2 days (such as high fever, fever for more than 24 hours)

Management/treatment:

If referred :

1. Explain to the family about the dangers of postpartum infection
2. Give antibiotics (IM on the outer site of the thigh, do not give on the gluteal part,
 - penicillin 800.000 U IM <--]
 - or] + chloramphenicol
 - ampicillin 500 IM <--] 500 mg p.o.
3. Give acetaminophen antipyretics /analgesics
4. Force the patient to drink as much as possible
5. Refer to the hospital with a referral form.

If referral is refused

1. Explain the danger of this disease to the patient and her family
2. Give antibiotics at the Puskesmas
 - Penicillin 800.000 U. IM or <--]
 - or] + Chloramphenicol
 - Ampicillin 500 mg IM <--] 500 mg p.o

Followed by.

- a. Penicillin 800.000.U. IM + Chloramphenicol 1 gram orally every 12 hours for 10 days
or
- b. Ampicillin 500 mg + chloramphenicol 500 mg orally every 6 hours for 10 days

3. Give antipyretics if the fever is high
4. Increase the fluid intake

Facts that need special attention :

This infection may cause septic shock. The symptoms are, hypothermia, increase of heart rate, dyspnea, apathy and restlessness, hypotension. This condition is very dangerous and needs immediate referral to the hospital after initial antibiotic treatment

Protocol for management of premature delivery and low birth weight newborns

What is meant with premature delivery ?

The birth of a baby of less than 9 months pregnancy (37 weeks)

What is meant with the delivery of a baby with a low birth weight?

A baby with a low birth weight is a baby born with a body weight of less than 2500 grams, the pregnancy could be either premature or full term.

What are the signs and symptoms :

A premature baby : the baby was born from a pregnancy of less than 37 weeks (9 months)

A low birth weight baby :

1. the weight of the newborn is less than 2500 grams
2. The baby looks small.

What should be asked to the patient ?

How far was the pregnancy when she delivered the baby ?

What should be evaluated:

The premature baby

1. The age of pregnancy should be calculated from the date of the last menstrual period.
2. Examine the size of the baby and determine signs of prematurity. The baby is small, the skin is thin, fewer skin folds of the foot palms, blood vessels very clearly visible on the belly.

The low birth weight baby:

Measure the length and weight of the baby.

Criteria for referral :

1. If the baby is very small (<2000 grams)
2. If it can not suck
3. If other signs are present, such as fever, severe jaundice and signs of sepsis, the baby should be referred

Management and treatment:

Procedure of referral

1. The baby is put to the breast during transportation to the hospital
2. Baby's body temperature should be kept warm, put on warm clothes for the baby, including a cover for the head, socks, better if she is held warmly in the arms of the mother
3. Give the baby mother milk continuously
4. Refer to the hospital accompanied by complete information.

If referral is refused :

1. Give mother milk
 - do not give any other milk than mother milk (do not give tea, honey, air putus or milk in a bottle)
 - put the baby to the mother's breast at least every 2 hours; if the baby can not suck, feed the mother milk drip by drip into the baby's mouth
 - give mother milk expressed by pump.
 - if the baby gets insufficient mother milk, hypoglycemia may occur (trembling and crying weakly). Force the mother to give her breast milk every time.

2. Maintain the baby's body temperature, by putting on enough clothes, a baby cap and socks.
Bring the baby's body directly in contact with that of the mother's. The mother and her baby sleep together with the mother holding the baby in her arms, give a hot water bag/bottle if necessary. Try to keep the baby's temperature not less than 36 - 37 C
3. Give instruction and explanation to the family about the danger signs of the baby (infection symptoms and difficulties in breathing). Also where should they go any time to seek help.
4. Explain to the family that if the baby does not suck, it should be brought to the hospital

Facts that need special attention

There are 3 things that needs attention:

- 1 Sepsis (see management of sepsis)
2. Difficulties in breathing
3. Symptoms of hypothermia

Give explanation/information to the family that if the baby is not treated properly, the baby will die.

Protocol for management of a baby with asphyxia

What is meant with asphyxia in a baby ?

Asphyxia in a baby is a condition where the baby does not breath immediately after birth

What are the signs and symptoms ?

1. The baby does not cry immediately after birth
2. The colour is blue and afterwards becomes pale
3. It is not active or does not move, is less active and looks very weak
4. It stops breathing

What needs to be asked to the mother/family ?

1. How long was the labor ?
2. Was it a breech presentation, or was the umbilical cord around the neck of the baby ?
3. Was the baby very premature (< 1500 grams) or was the weight of the baby very low ?

How to examine a baby with asphyxia

1. Watch the baby's colour and movements
2. Is the heart beat palpable

Criteria for referral

If after first aid the baby is still not breathing , or breathing is still not good, it looks blue or pale, or breathing is irregular or too fast and the baby looks very weak; then the baby should be referred immediately to the hospital.

Management/treatment

First aid for a baby with asphyxia is as follows:

1. The baby's mouth and nose should be cleared of mucous and blood
2. Position the baby with the head in a lower position, then

suck the mucous from the nose and mouth with a mucous sucker until clean

3. Give oxygen if available
4. Give artificial respiration with "bag and mask" alternating massage of the heart and artificial breathing
5. Give vit K injection 1 mg IM/1 x
6. Maintain the body temperature, avoid decrease in temperature
7. Refer if breathing becomes regular while giving oxygen
8. To prevent decrease of temperature, put on her/his baby clothes, including a baby cap and socks.

If referral is refused:

1. Explain that the baby is in danger, and can die any time
2. Give first aid artificial respiration
3. Take care that the baby's temperature does not decrease
4. Visit the baby every day until its condition is improved
5. Refer if convulsions occur or it refuses to suck

Important factors causing asphyxia in a baby

1. Baby with a breech presentation
2. Prolonged labor
3. Early rupture of amnionic membranes
4. Entwining of umbilicalcord around the neck
5. Premature baby or low birth weight baby

But a baby also may get asphyxiated without any risk signs mentioned above. Asphyxia is the main cause of death in a new born baby, especially in a premature baby. Asphyxia in a baby may cause sequellae such as physical and mental defects in the future. Thus, try to refer the baby.

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Management of sepsis in a new born baby

What is meant with sepsis in a newborn baby ?

Sepsis is a severe disease for a new born baby. This disease may start with infection of the respiratory tract, infection of the umbilical cord or infection of the skin. This disease may occur without showing symptoms or a clear source of infection.

What are the signs and symptoms of the disease ?

1. The baby does not want to suck or sucks only a little bit (a very important sign)
2. Low body temperature (hypothermia) or fever (hyperthermia)
3. Is not active, does not move
4. Cries very much and is restless
5. Colour of the skin changes, blue or pale
6. Does not breath for some moments, difficulty in breathing, moans or cries with a piercing voice, breaths very quickly.

What should be asked to the mother or family of the baby ?

1. About drinking, does the baby drink sufficiently ? If not, since when is her/his drinking not good ? (hour or day). Does the baby's mouth feels cold during lactation. According to the mother, is the baby sucking well or less good.
2. Does the baby cry much ? Is her voice different from usual
3. Is the baby pale or bluish grey ?
4. Are the movement of her/his limbs very weak or does it not move the limbs at all
5. Was it observed that the baby breath very fast or irregular or is moaning ?

How should the baby be examined/watched ?

1. Measure the baby's body temperature
2. Observe/watch the baby if she is crying
3. Watch the way if she is crying
4. Watch the colour of the baby, is she blue or pale?
5. Watch and note the respiration of the baby, the frequency and whether it is regular or not

Criteria for referral :

If the baby shows one of the signs/symptoms mentioned above, refer the baby to the hospital. Fever in less active babies could be a serious symptom. The baby may die if not immediately treated, so referral is necessary.

Management and treatment

If referred:

1. Explain about the serious condition of the baby and that the baby can die quickly
2. Give mothermilk as frequently as possible during transportation to the hospital
3. Put on sufficient clothing to prevent the baby from becoming cold, including a baby cap, socks and put him/her in the mother's arms.
4. Give antibiotics in the beginning, at the Puskesmas or in the Polindes
- Ampicillin 75 mg/kg BW, IM + 2,5 mg gentamicin IM on the external part of the thigh
5. Refer to the hospital with a referral form

If referral is refused:

1. Explain the danger of the disease for the baby, and that the baby can die fast
2. Feed mother's milk as much as possible
3. Put on sufficient clothing, prevent him/her from getting cold
4. Give antibiotics injection IM for 10 days every 12 hours with Ampicillin 75 mg/kg BW or Gentamicin

Facts that need special attention:

Four kinds of symptoms or situations that may cause sepsis in a newborn baby and that needs attention:

1. Fever in a mother due to infection
2. Foul smelling amnionic fluid
3. Early rupture of amnionic membranes, 24 hours before the baby is born
4. Premature delivery or low birth weight delivery
5. Prolonged labor

However, the baby can show symptoms of sepsis without any risk factors previously

Do not forget that sepsis is an important cause of death in a new born baby.

Criteria for referral:

Refer to the hospital for the presence of each sign mentioned above.

Management/treatment:

If referred:

1. Explain to the family about the danger of icteric disease in a baby i.e, the baby may die or may suffer from a serious defect

2. Refer and pay attention to the rules for the baby, prevent him/her from getting cold, cloth it adequately, including cap and socks.

Attention:

1. When referring the mother/baby use the referral form
2. Each referral from the TBA/Polindes should be answered by using the feedback information form.

APPENDIX I

WORKPLAN FOR JULY 1992

WORKSHEET ACTIVITIES JULY 1992.

PRIORITY ACTIVITIES JULY 1992	PRIORITY SCALE	STRATEGY	RESPONSIBLE PERSON
<p>Managerial***</p> <ul style="list-style-type: none"> -involve more villages in one Polindes. -organize regular meeting Polindes/ health personnel -organize village midwife to supervise more than one polindes -polindes TBA's home -treatment expenses -arrange operational details of ambulance training *training management in Polindes personnel 	<p>*** *** *** *** *** ** ***</p>	<p>Organize and monitor meeting</p> <p>Discussion with HC.MD</p> <p>Discussion with HC. MD and Village head - to change place</p> <p>Discussion with Polindes Manager, and doctor PUSKESMAS</p> <p>3 days workshop, participants Village head, Village Midwife, Cadre (21 - 23 July)</p>	<p>DR.James Thouw</p> <p>Dr. Hedy Dr. Puskesmas</p> <p>Yayasan Indonesia Sejahtera</p>
<p>Health Centre level.</p> <p>Policies***</p> <ul style="list-style-type: none"> -apply case management modules -monthly discussion with hospital and polindes midwives -monitor the use of referral+ feed back cards -institute the use of risk assessment -apply partograph <p>Supervision**</p> <ul style="list-style-type: none"> -TBA meetings -Polindes activities -make regular reports/ records of monthly activities Polides - HC 	<p>*** **</p>	<p><- Monitor activities <- For midwives + MD</p> <p><- Monitor activities, make regular visits Case discuss and refreshing <- Smaller groups of TBA</p>	<p><- DR. James Thouw + Dr. Yanti <- Dr. Anna Alisyahbana + DR. James Thouw</p> <p>DR. James Thouw / Dr. Anna</p>

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WORKSHEET ACTIVITIES JULY 1992.

	PRIORITY ACTIVITIES JULY 1992	PRIORITY SCALE	STRATEGY	RESPONSIBLE PERSON
1.4.	Hospital level Refreshing** -health personnel in MCH -provide meeting for case management -coordinate perinatal meetings and audit -village midwives to be trained for 1 month - continuously at HC and weekly thereafter - for 6 - 12 mo Supervision** -skills and attitude of HC MD and midwife -check referral and feedback cards to/from HC -check for regular reporting and recording Contact Research team any time in case of maternal death or perinatal death	• 	Meeting: Every Thursday at 10.00 O'clock Monitor meeting Hospital + HC.MD Prepare case report and verbal autopsy reports for perinatal meeting <- Monitor and discussion with HC.MD, Polindes midwife and Hospital staff <- 	DR. James Thouw Dr. Yanti DR. James Thouw Dr. Sutedja Dr. Swandari Dr. Hedy Dr. Yanti
1.5.	Communication Radios*** -all were installed except that of Sumedang Hospital needs a tower	...	All radios should be checked regular and function property operating)	Dr. Quine Dr. Hedy
1.6.	Transportation Check instalation of emergency equipment for ambulance	Equipments + drivers for ambulance, - Polindes + HC supplementation of medicine and other emergency equipment	Dr. Hedy Dr. Soeprapti Thaib
1.7.	Equipment In episiotomi not available at Polindes	...	Purchas equipment	Dr. Soeprapti Thaib

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APPENDIX J

REVISED EVALUATION FRAMEWORK

FRAMEWORK FOR EVALUATING TANJUNGSARI REGIONALIZATION PROJECT

QUESTION: Does The establishment of an integrated village maternity service with referral to emergency care improve maternal and perinatal management and outcome?

INDICATOR	DEFINITION	OBJECTIVE		SOURCE	COMMENTS/ RATIONALE	WHEN TO EVALUATE
		BASELINE	TARGET			
A. Establishment of integrated village level maternity service						
1. ¹⁰ Nine Polindes established with 8 activities on a basis for TBA's daily. And midwives: 2 days a week.	No. of Polindes with prenatal, delivery, FIP, postnatal and U.S.'s clinics functioning.	0	10	Appropriate Staff posted (TBAs and Bidans). Equipment.	Evaluate 6 - 8 Activities?	July 1992 July 1993
2. ⁷ No. villages with access to a Polindes.	No. of Villages whose women and TBAs have access to Polindes.	0	20	Meetings held with Village Heads, TBAs, and Project Staff. KAP Survey of women and TBAs.	This assumes that TBAs and village leaders will give access to other Villages without Polindes.	July 1992 July 1993
3. ⁷ % of pregnant women per village using the designated Polindes for ANC and delivery.	No. of pregnant women per village divided by all pregnant women using designated Polindes x 100.	ANC: 0 Delivery: 0	70% 50%	Attendants at prenatal care. Number of deliveries Registers	This assumes a policy of risk scoring in place	November 1992 July 1993
4. ⁷ % of Polindes that manage with radio communication to referral hospital.	No. of Polindes with functional radio communication to Puskesmas and referral hospital	Polindes to Puskesmas 0	100% 100%	Radios, transmitters and antennae installed and functioning		November 1992 August 1993

APPENDIX J

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QUESTION: Does The establishment of an integrated village maternity service with referral to emergency care improve maternal and perinatal management and outcome?

INDICATOR	DEFINITION	OBJECTIVE		SOURCE	COMMENTS/ RATIONALE	WHEN TO EVALUATE
		BASELINE	TARGET			
5. % of women at high risk referred from Polindes to Puskesmas/Hospital	No. of women at high risk referred divided by total number of women at high risk x 100.	Approximately:		Monthly statistics of Polindes and health centres.	Protocols for referral of women at high risk in place	July 1992 Every 4 months
a. Prenatally		0%	80%			
b. Labor.		0%	80%			
c. Post-partum		0%	80%			
		(perinatal)				
		(labor/delivery)				
		(post-partum <12 hours)				
6. % of women at high risk accepting referral from Polindes to PKM/Hospital	No. of women at high risk referred, who accepted referral, divided by total no. of women at high risk x 100.			MCH records linked with HC records and register. KAP survey of women at high risk referred.		November 1992 July 1993
a. During prenatal period.		0	80%			
b. Delivery		0%	50%			
c. Post-partum		0%	50%			

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QUESTION: Does The establishment of an integrated village maternity service with referral to emergency care improve maternal and perinatal management and outcome?

<u>INDICATOR</u>	<u>DEFINITION</u>	<u>OBJECTIVE</u>		<u>SOURCE</u>	<u>COMMENTS/ RATIONALE</u>	<u>WHEN TO EVALUATE</u>
		<u>BASELINE</u>	<u>TARGET</u>			
7. % of neonates of high risk referred. a. immediate postnatal (<24 hours) b. postnatal (≤28 days)		0	80%	Monthly statistics of Polindes and health centers.		Every 4 months
		0	75%			
8. Accepting referral. a. Immediate postnatal b. Postnatal (≤28 days)		0%	50%	MCH records linked with HC records and register. KAP survey of women at high risk referred, combined with Social Marketing		2 x

% of women
 with post-partum
 complications
 in the home
 treated by
 midwife

0% 20%

ab

QUESTION: Does the establishment of an integrated village maternity service with referral to emergency care improve maternal and perinatal management and outcome?

<u>INDICATOR</u>	<u>DEFINITION</u>	<u>OBJECTIVE</u>		<u>SOURCE</u>	<u>COMMENTS/ RATIONALE</u>	<u>WHEN TO EVALUATE</u>
		<u>BASELINE</u>	<u>TARGET</u>			
B. Referral network						
1. % of ambulance calls with successful response.	No. of times the ambulance responded to call divided by number of times ambulance was requested.	0	90%	Register of emergency calls.	Provided radio system in place in Polindes, and radio operator + driver available on a 24 hour basis.	December 1992 August 1993
2. % of women collected by ambulance arriving at hospital in timely fashion.	No. of women collected by ambulance arriving in hospital divided by all women collected by ambulance x 100.	0	90%	Register of referrals in all participating facilities.	This test efficiency of transport.	December 1992 August 1993
3. % of emergency calls with radio communication.	No. of emergency calls with radio communication divided by all emergency calls x 100.	0	90%	Functioning radios in Polindes. Registers.		November 1992 August 1993
4. % of women come to Polindes with emergencies.	No. of all women with emergency come to Polindes divided by all women with emergency x 100.	0	80%	Registers. Records.	If Polindes have a radio communication, women may go there in the first instance.	November 1992 August 1993

QUESTION: Does the establishment of an integrated village maternity service with referral to emergency care improve maternal and perinatal management and outcome?

<u>INDICATOR</u>	<u>DEFINITION</u>	<u>OBJECTIVE</u>		<u>SOURCE</u>	<u>COMMENTS/ RATIONALE</u>	<u>WHEN TO EVALUATE</u>
		<u>BASELINE</u>	<u>TARGET</u>			
5. % of women with emergencies taken from Polindes to hospital.	No. of women with emergency taken to hospital from Polindes divided by all women with emergency at Polindes x 100.	0	80%	Registers. Records.	If Bidan is in Polindes, she may deal with some emergencies.	November 1992 August 1993
6. % of women with emergencies who go directly to Puskesmas. *)	No. of women with emergencies who go directly to Puskesmas divided by all women with emergencies x 100.	20%	10%	Registers. Records.	This would happen if Polindes have no bidan and/or radio.	November 1992 August 1993
7. % of women with emergencies who go directly to hospital. *)	No. of women with emergencies who go directly to Hospital divided by all women with emergencies x 100.	50%	10% ?	Registers. Records.	This proportion will reduce if Polindes and communications function.	November 1992 August 1993

*) Sell referral to Puskesmas or Hospital

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QUESTION: Does the establishment of an integrated village maternity service with referral to emergency care improve maternal and perinatal management and outcome?

INDICATOR	DEFINITION	OBJECTIVE		SOURCE	COMMENTS/ RATIONALE	WHEN TO EVALUATE
		BASELINE	TARGET			
C. Maternal and perinatal management an outcomes						
1. % of pregnant women who know three or more danger signs.	No. of pregnant women who know three or more danger signs divided by total population of pregnant women.	5% To increase % of pregnant women who know 3 or more danger signs from 5% to 50%	50%	KAP survey and focus group discussions.	This should be achieved through IEC campaign. (from Social Marketing)	July 1992 October 1992 November 1992
2. % of midwives & MDs passing the test.	No. of midwives and doctors passing test on risk factors and case management over baseline knowledge.	16,7% doctors 12,5% Midwives + Nurses	75% 75%	Test. Monthly meetings with teaching for doctors. Bi-weekly meetings with teaching for Bidans. Management protocol and score.	Passing grade for test is 6 out of a possible 10.	Test December 1992 July 1993
3.a. % of women referred for CIS	No. of women referred for CIS	To decrease % of women referred for CIS.		Medical audit. Management protocol and score.	Medical audit of: i) all referrals needing CIS	Ongoing home visits.
b. Other adverse maternal/perinatal outcomes (Complications) correctly managed.	Or with adverse outcomes divided by total no. of women with CIS or adverse outcomes.	Or with adverse outcome managed incorrectly.			ii) maternal death iii) perinatal death	Records review. Staff meetings at all levels by P.I.

OS

QUESTION : Does the establishment of an integrated village maternity service with referral to emergency care improve maternal and perinatal management and outcome?						
INDICATOR	DEFINITION	OBJECTIVE		SOURCE	COMMENTS/ RATIONALE	WHEN TO EVALUATE
		BASELINE	TARGET			
4. Reduction in perinatal mortality rate.	No. of perinatal deaths divided by no. of live births x 1000.	40/1000	35/1000	Village records. HC and Hospital statistics.	This requires complete registration of births and deaths at village level.	Ongoing until August 1993
5. Reduction in % of women delivered at home according to: • low risk • high risk • very high risk. • Assuming this division in 3 categories will turn out to be practical.	No. of women by risk category delivered at home by TBA divided by all women in respective risk category x 100	100% 70% 50%	50% 30% 10%	Survey. Registration. MCH cards.		July 1993

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QUESTION: Does the establishment of an integrated village maternity service with referral to emergency care improve maternal and perinatal management and outcome?

INDICATOR	DEFINITION	OBJECTIVE		SOURCE	COMMENTS/ RATIONALE	WHEN TO EVALUATE
		BASELINE	TARGET			
6. % of women delivered at Polindes by TBA according to: - low risk - high risk - very high risk.	No. of women by risk category delivered Polindes by TBA divided by all women in respective risk category x 100.	0 0 0	40% 10% 3%	Polindes Records	This requires tight Supervisions of Polindes activities and proper identification of risk cases.	November 1992 July 1993
7. % of women managed with the following - Breech - Prolonged labor - Asphyxia - Bleeding - PPH - Infections/Eclampsia - Eclampsia	No. of women with each type of complication divided by all deliveries x 100.	<i>Home</i> <i>Polindes</i> <i>Puskesmas</i> <i>Hospital</i>		Records of monthly returns.		November 1992 July 1993
8. % of women delivering in Puskesmas & Hospital according to: - Low risk - High risk - Very high risk	No. of women by risk category delivered at HC or hospital divided by all women in respective risk category x 100.	0 30% 20%	10% 30% 77%	Registered monthly returns.	Low risk pregnant women living near & HC or Hospital still prefer to deliver at a HC/ Hospital if financially able.	July 1993

← 7.
Place
How
Polin
HC
Hop.

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APPENDIX K

POLINDES/POSYANDU SCHEDULE FOR MIDWIVES

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**JADWAL PEMERIKSAAN POLINDES
 BIDAN DESA DI TANJUNGSARI**

NO	NAMA POLINDES	NAMA-DESA	NAMA DESA YANG BERDEKATAN	NAMA BIDAN DESA	KUNJUNGAN
01.	Pkm. Sukasari				
	- Delima	- Genteng	Banyuresmi Kadakajaya	Entang	Tiap Senin - Polinid B Tiap Selasa - Prokkes Tiap Sabtu - Prokkes
02.	- Sakura	- Sindangsari ✓	Nangerang Mekarsari	Dewi	Tiap Sabtu POKY Tiap Kamis Palend.
03.	- Waluya	- Cijambu	Kadakajaya	Ida	Tiap Selasa 2 kali/bln ✓
	<i>7. Jani</i> - Titiran	- Sukawangi - Pasigaran - Citali	Pasigaran Citali	Eri	(PP) Tiap Selasa / Kamis 1 kali/bln tgl 11 3 kali/bln
	- Cempaka	- Ciptasari (pp)	Gudang Margakuyu		2 kali/bln <i>Fri day.</i> Tiap Kamis
	- Sukarapih	- Sukarapih	Margakuyu Kutamandiri	Siti H	Kamis <i>Jatuhday</i>
	- Cinanjung	- Cinanjung	Raharja Jatisari		3 kali/bln <i>Thursday.</i> 1 kali/minggu
05.	Cilembu				
	- Harapan Kita	- Gunungmanik	Margajaya Mekarbakti	Agnia	Tiap Selasa <i>Wednes.</i> Tiap Jum'at
	- Karyabhakti	- Haurngombor	Mekarbakti Ds. Gigendel		Tiap tgl. <i>Jumat / Friday.</i>
	- Bahagia	- Margajaya	Gunungmanik Raharja		Puskesmas tiap hari 1 kali/bln Tiap tgl, 25 <i>Kedokteran / Prokkes</i>