Making childbirth a village affair
How ‘Desa Siaga’ improves the health of mothers and babies in Indonesia

Context
Indonesia has achieved marked progress on a number of developmental goals over the past 30 years, yet maternal and child health remain issues of significant concern: the country’s maternal mortality ratio of 228 per 100,000 live births is one of the highest in the region and far off the MDG target of 102 deaths per 100,000 live births by 2015. In the same vein, the infant mortality rate, while improving, is still higher than in neighbouring countries.

As many as 20,000 Indonesian women die each year as a result of childbirth-related complications. Most of these deaths can be traced to the so-called ‘three delays’: delays in making the decision to refer the pregnant women to a facility that can manage her complications, delays in finding transport to get her there, and delays in obtaining appropriate medical care or blood for transfusion upon arrival.

These medical causes are compounded by a set of sociocultural ones, including the so-called ‘four toos’: women give birth when they are too young or too old, they have too many children, and they have them too close together. Greater use of family planning would help to reduce maternal mortality by limiting the number of times a woman is exposed to the risk of childbirth or potentially unsafe abortions.

In 1989 the Government of Indonesia launched a large-scale village midwife initiative, Bidan di Desa, to increase the proportion of births attended by a skilled health provider. More than 50,000 midwives were trained and placed in villages nationwide, tasked with attending births and providing antenatal and postnatal care, as well as health promotion and healthy baby services.

The initiative has succeeded in raising the proportion of births attended by a skilled professional, particularly among the poor and in rural areas, however midwifery services in remote areas are still the least developed in the country.

Increasing the proportion of births assisted by skilled birth attendants has, in and of itself, not been enough: there is a need to place pregnancy and childbirth within a ‘continuum of care’ in which women benefit from integrated service delivery which begins before conception (i.e. with

Residents of the Reyan hamlet in South Gerung village, West Lombok.
The Desa Siaga programme is built upon the idea of self-reliant communities which work together to address their own health challenges.

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contraceptive and reproductive health services) and continues through pregnancy, delivery, the postnatal period, and into the early childhood period.

There is also a need to shift the care-seeking behaviours of pregnant and post-partum women, their families and the broader community to place a greater priority on healthy pregnancies, safe deliveries and early childhood survival.

**Approach**

**‘Ready to bring and to take care’**

Desa Siaga is a national programme of the Indonesian Ministry of Health, launched in 2006 as a strategy for encouraging self-reliant communities which actively address their own health challenges such as their maternal and infant mortality.

The term Desa Siaga – which means ‘Alert Village’ – is the short form of ‘Desa Siap Antar Jaga’, meaning ‘ready to bring and to take care.’ An Alert Village is one which is vigilant and prepared: its inhabitants notice those in need and bring them to where appropriate care is available.

The Desa Siaga approach to reducing deaths among mothers and babies is based on the idea that everyone – husbands, neighbours, community and religious leaders, midwives, and health facility personnel – has a role to play in promoting birth preparedness and in responding to complications which might arise during pregnancy or delivery. Pregnancy should no longer be a private concern affecting only women, but rather transformed into a village affair. In line with long-standing traditions of mutual support and assistance in Indonesian society, Desa Siaga promotes the idea that responsibility for ensuring healthy pregnancies and safe deliveries should be shared throughout the community.

In an Alert Village, community members work together to save lives by agreeing to establish and support five key ‘alert systems’ which address some of the greatest risks facing women during pregnancy and childbirth. They are guided by a trained Village Facilitator who leads the community members in a process of participatory reflection about actual cases of maternal or infant death which have happened in their own community. Through this participatory process, villagers develop a heightened sense of responsibility about the well-being of pregnant women and their babies and learn about basic actions they can take to help reduce the number of deaths in their village.

**The German Contribution**

On behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) Germany has been supporting the Government of Indonesia’s health strategies since 2000 through projects implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.² Between 2006 and 2009, with co-funding from the British Government, the GIZ SISKES (“Strengthening District Health Systems”) project supported Provincial and District Health Offices in Nusa Tenggara Barat (NTB) and Nusa Tenggara Timur (NTT) to implement the Desa Siaga approach in 140 villages. NTB and NTT provinces have high maternal and infant mortality rates and among the weakest health indicators in all of Indonesia.

**The five Desa Siaga systems**

An Alert Village comprises five interrelated elements:

1. **A notification system.** Details about a village’s pregnant women are recorded in a central register, maintained by a volunteer coordinator. The registered women

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² The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH was formed on 1 January 2011. It brings together the long-standing expertise of DED, GTZ and InWEnt. For further information, go to www.giz.de.
are linked up to the village health facilities for regular antenatal visits, as well as assistance with delivery and post-partum care. Village midwives encourage them early on to deliver in health facilities: those who agree are given a brightly coloured ‘birth preparedness’ sticker to display on the front door of their house, indicating – visible for everyone – the woman’s due date, who will assist her during the birth, who has agreed to donate blood if needed, and who will assist with transportation. The sticker symbolizes the principle of ‘making childbirth a village affair.’

2. A financial support system. Individual or household contributions are collected and used to offset the costs of transportation and medical care during and after childbirth. The simplest approach, adopted by most villages, is a self-savings scheme in which pregnant women contribute small amounts of money to the fund on a regular basis for the duration of their pregnancies and receive the money back as a lump sum upon delivery. More complicated to establish and maintain is a local insurance scheme which extends to all members of the community, not only pregnant women.

3. A blood donor system. A woman who is haemorrhaging during or after childbirth can be saved quickly with transfusions of compatible blood. However if blood is not available, or a matching donor is not identified, she can die in a matter of hours. The blood donor system removes barriers to the availability of blood for women who require it. Villagers learn about the process of donating blood and are encouraged to volunteer to have their blood groups tested and listed in a village registry, so that compatible donors can be readily identified when needed. With their mobile phones, midwives, Village Facilitators, blood donation coordinators, blood banks and blood donors are able to contact one another quickly when necessary.

4. A transportation and communication system. In rural areas of Indonesia there is little public transportation, especially at night time, and very few people own a car. Many villages are dozens of kilometers from the closest hospital. It can be difficult and time-consuming to notify midwives that a woman has gone into labour, to coordinate logistical arrangements for transferring a pregnant woman into care, or to locate a potential blood donor. In Alert Villages, vehicle and mobile phone owners volunteer their support to resolve transportation and communication problems when emergencies arise. A volunteer coordinator maintains a registry containing the names and contact details of local residents who are willing to assist pregnant women in need.

5. A family planning information post. In order to increase the uptake of family planning following childbirth, and thereby reduce the number of unwanted pregnancies, a family planning information post is established in the community. A community volunteer participates in a reproductive health training programme and is provided with educational resources for outreach work. He or she works individually and in small groups with women, men, and adolescents of both sexes who are interested in learning more about family planning and, in some areas, identifies participants for special reproductive health courses at the health centre.

The implementation costs of Desa Siaga
A costing study has shown that it costs between € 4100 and € 5700 to establish and operate Desa Siaga, using the approach described, in one village for a year, depending on the specific coordination model which is used. This represents a cost of less than € 1 per capita. Eighty percent of costs relate to establishing the systems, with the remaining 20% going to monitoring, evaluation and on-going support. There are a number of ways in which implementation costs can be contained in order to extend the Desa Siaga model in resource-limited settings.

Results
Regular monitoring and two programme evaluations have generated encouraging evidence that Desa Siaga is stimulating a positive approach to problem-solving in communities and has contributed to improved uptake of reproductive
health services, including an increase in antenatal care visits, an increase in the proportion of women assisted by skilled birth attendants at delivery, an increase in the proportion of women giving birth at health facilities, and improved knowledge of family planning methods.

Desa Siaga is known, used and trusted by villagers. More than 80% of mothers surveyed in NTB knew of the Desa Siaga systems in their village and more than half had used the notification system, the financial support system and the family planning information post.

Where the approach has taken root, it has empowered the community to address its own problems. It has tapped into a sense of community solidarity among villagers, encouraged many people to rethink their relationships with one another, and made villagers more prepared to confront medical emergencies.

It has also helped to transform gender relations. The male partners of pregnant women increasingly understand and accept that they must ensure that their wives have the support they need during pregnancy and childbirth.

Finally, the Alert Village approach appears to be sustainable over time. Desa Siaga systems were successfully established in all 140 villages and more than two-thirds of Village Facilitators were still liaising actively with local health facilities on Desa Siaga following programme completion. While some villages have subsequently lost momentum, particularly where the local leadership is not supportive, there is strong commitment among provincial and district officials to support villages in maintaining their achievements and to roll out Desa Siaga to new areas.

Lessons Learned

The Government of Indonesia aims to extend Desa Siaga to 80% of the country’s 75,000 villages by 2015 and is interested in expanding the approach to address health issues that go beyond maternal and neonatal health.

In doing so, there is a wealth of knowledge to be drawn upon from the experience of implementing Desa Siaga in NTB and NTT. Key lessons learned include:

- A strong coordinating structure is needed to oversee the contributions of a range of institutions and individuals working at multiple levels.
- Desa Siaga’s success depends upon the involvement of enthusiastic and committed people at district and village level, and on regular community meetings and contact with the Provincial and District Health Offices once the systems are established.
- Support for Desa Siaga at village level should go hand-in-hand with efforts to strengthen health systems.
- The strategy of introducing Desa Siaga into districts where there was a parallel government initiative called ‘Making Pregnancy Safer’ ensured a balance between the ‘demand’ side and the ‘supply’ side of the equation.

Peer Review

According to two external reviewers, the Desa Siaga approach represents a ‘promising practice,’ worthy of being published widely. They agree that the approach stands out in terms of its innovation, gender awareness, and its participatory and empowering approach.

They found that the Desa Siaga approach is effective in that it has contributed to an increased uptake of reproductive health services; that it is transferable as it can be applied elsewhere flexibly, in response to local needs and priorities; that the monitoring and evaluation of the implementation of Desa Siaga has been systematic; that the assessment of cost-effectiveness is difficult since there are not similar data available on other approaches which aim to reach the same objectives; and that there are strong indications for its sustainability, given the commitment to Desa Siaga on the part of government health officials at provincial and district level.