

## ANNEX 11: MATERNAL AND NEWBORN HEALTH AND THE PRIMARY HEALTH CARE SYSTEM

### CAUSES OF MATERNAL MORTALITY IN INDONESIA

The maternal mortality ratio (MMR) declined from 390 in 1991 to 228 in 2007 and most recently is estimated at 359<sup>1</sup>. While recognising the large confidence intervals of the survey findings, they underline that inadequate progress has been made over the past five years. The 2010 census found pre-eclampsia and eclampsia related conditions and haemorrhage the most common causes of maternal death with sizeable variation by region. Eclampsia and pre-eclampsia related deaths are higher in the more populated islands of Java and Sumatra and post-partum haemorrhage more frequent in Eastern Indonesia where there is poorer access to quality emergency obstetric care; see Table 1 below.

**Table 1 Distribution of maternal mortality based on causes and regions, 2010**

Cause of death	Regional Areas					Indonesia
	Sumatera	Java-Bali	Kalimantan	Sulawesi	Eastern Indonesia	
Pregnancy ended by abortion	3.7	4.2	2.7	5.6	4.2	4.1
Oedema, proteinuria & hypertensive disorder	33.3	33.1	34.9	32.6	25.8	32.4
Placenta previa, premature separation of placenta and antepartum hemorrhaging	4.4	2.7	4.3	2.3	3.6	3.3
Other health services related to foetus and amniotic cavity and other birthing problems.	3	1.7	0	0.8	0.1	1.6
Prolonged/obstructed labour	0.5	1.1	0	0.6	1	0.8
Postpartum hemorrhaging	16.4	16.8	28.1	26.3	29.8	20.3
Other pregnancy and delivery complication	11.1	6	2.9	7.9	5.9	7.2
Complication related to puerperium and other conditions	27.6	34.3	27.1	23.9	29.7	30.2

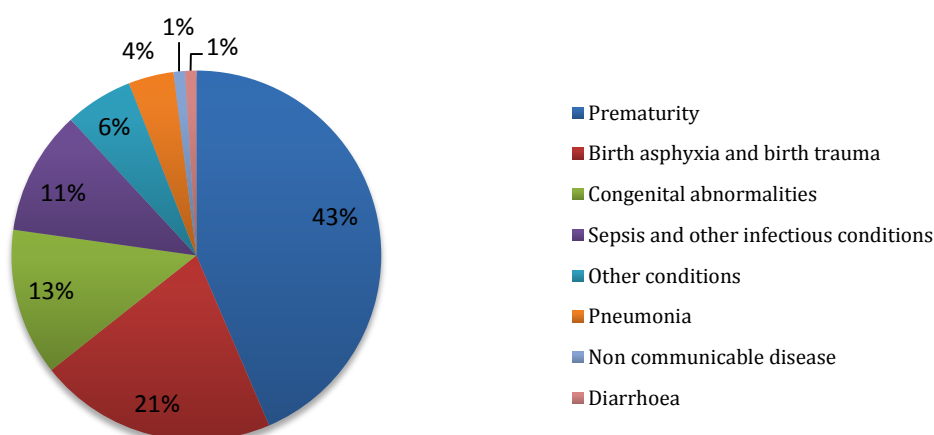
Source: Maternal mortality assessment in 5 regions in Indonesia, UNFPA, Litbangkes 2010

### CAUSES OF NEONATAL MORTALITY IN INDONESIA

WHO (2012) estimates that prematurity is the leading cause of neonatal death in Indonesia accounting for 44% of deaths. This is followed by birth asphyxia and birth trauma (21%); see Figure 1 below.

<sup>1</sup> Statistics Indonesia (Badan Pusat Statistik—BPS), National Population and Family Planning Board (BKKBN), and Kementerian Kesehatan (Kemenkes—MOH), and ICF International. 2013. *Indonesia Demographic and Health Survey 2012*. Jakarta, Indonesia: BPS, BKKBN, Kemenkes, and ICF International.

**Figure 1: Estimated causes of neonatal mortality in Indonesia (WHO, 2012)**



## MATERNAL AND NEWBORN HEALTH AND NUTRITION CARE THROUGH THE LIFE CYCLE

Effective packages of interventions pre pregnancy, during pregnancy, at the time of delivery and post-delivery exist for preventing maternal and newborn death globally (Campbell et al 2006; PMNCH 2013). Although generally endorsed in Indonesian policy, effective implementation of these packages of care are often lacking due to health system constraints linked to workforce and quality of care issues, as well as socio-cultural and demand side factors that affect health practices and access to services.

**FAMILY PLANNING.** Family planning reduces the lifetime risk of maternal death and high-risk births to young and older women. By helping women to space births, family planning also has a positive impact on infant and child mortality by reducing pregnancies that are too close together, which have a higher risk of low birth weight, pre-term births and child malnutrition including stunting. Family planning is one of the most cost-effective ways to reduce maternal mortality at a cost per DALY<sup>2</sup> saved of US\$30-49.

Indonesia has high rates of unwanted pregnancy and the second highest abortion rate in South-east Asia at 37 abortions for every 1,000 women of reproductive age (Sedgh & Ball, 2008). Health worker interpretation of national law in practice restricts the provision of contraceptives at government facilities to married couples and is an important contributing factor. From the pioneering family planning movement of the past, Indonesia has experienced a plateauing of contraceptive use since 2002, reaching a modern contraceptive prevalence rate (CPR) of 58% of currently married women in 2012 (IDHS 2012). The CPR (modern methods) among all women of reproductive age is only 43%. IDHS 2012 found 71% of currently married women in Indonesia who already have 1 – 2 children want to delay their next birth for at least two years or want to stop having children altogether; however, only 63% of them are using any form of modern contraception. Two-thirds of women in NTT, for example, want to space or cease births, but less than half are using any method of contraception. Whilst around 75% of married women who have three or more children would like to stop childbearing, less than 15% are using a long acting contraceptive method better suited to this purpose.

The plateauing of contraceptive use has been accompanied by an increasing reliance on short-term methods, particularly the injectable, and a reduction in the use of long-acting and permanent methods (LAPM),

<sup>2</sup> A DALY is a measure of overall disease burden calculated as the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability, WHO (2008).

especially IUDs. Possible explanations for this trend include: lack of skills/knowledge of providers to counsel and present all appropriate methods; that private midwives generally do not keep stock of LAPM but order on request, resulting in women choosing available short-term methods to avoid a return visit; higher upfront cost of LAPM; and beliefs about side effects of LAPM (ICMM baseline survey results, 2014). Regulations that until recently prohibited midwives in the public sector from providing IUDs and implants and the lack of qualified doctors to provide male and female sterilisation have been other barriers. For older women who have completed their family size the limited availability of LAPMs increases their risk of an unwanted pregnancy and maternal death.

Private providers – generally midwives in private practice at a local level – are the largest provider of family planning nationally. In East Java around 60% of all modern contraceptives are obtained from a private midwife and another 15% at local drug stores<sup>3</sup>. In NTB 30% of all family planning is provided by private local midwives. This is much lower in NTT at only 5% where most women get modern contraceptive methods from *Puskesmas* or *Polindes/Poskesdes* at the more local level.

**CARE DURING PREGNANCY.** Improved care during pregnancy and the delivery of a package of proven antenatal interventions can significantly reduce maternal and newborn mortality and stunting. International evidence shows that delivery of effective maternal nutrition interventions can reduce maternal death by between 6 and 20% (Imdad & Bhutta, 2012a, 2012b), and over 80% of maternal deaths from hypertensive diseases could be reduced by greater coverage of key interventions (Ronsmans & Campbell, 2011). Multiple micro- and macronutrients including iron, calcium, zinc and energy-protein supplements during pregnancy reduce preterm and short for gestational age births and the risk of still birth, neonatal death and stunting (Bhutta et al., 2013; Black et al., 2013). A study in Indonesia found that 20% of early neonatal deaths could be attributed to a lack of IFA supplementation during pregnancy (Titaley et al., 2009).

In Indonesia, family decision-making, gender norms and socio-cultural beliefs affect maternal and early child health and nutrition. Division of labour within the family often leaves women with heavy and physically demanding work burdens through to the end of pregnancy, often reinforced by cultural beliefs. Food restrictions during pregnancy are common and often detrimental to the woman and her baby given their needs for improved energy and protein intake to prevent low birth weight and stunting. This is especially crucial for adolescent mothers. Cultural taboos can contribute to delayed antenatal care<sup>4</sup>. Analysis by the WFP in NTT found that female-headed households had a much higher rate of under-nutrition of both mothers and children than other households (WFP, 2010).

Access to and use of antenatal services is very high. The 2012 IDHS shows that 96% of women receive antenatal care (ANC) from a skilled provider and 88% receive four or more ANC visits during their pregnancy. Disparities exist and women with no education (64%) and those living in very remote areas have much lower ANC coverage (eg. only 58% in Papua). The quality of antenatal care is poor for most; in 2011 only 20% of *Puskesmas* fulfilled all service readiness indicators for ANC. Less than half of all pregnant women receive two tetanus toxoid vaccinations independent of their socio-economic background and only 53% of women were informed of possible complications during pregnancy. Routine blood and urine tests assist in screening for anaemia and pre-eclampsia and are requirements in the antenatal guidelines but only 41 and 48% of pregnant women received them according to the IDHS 2012.

Midwives' counselling skills and their awareness of the importance of nutrition and the consequences of low birth weight is poor. Compliance with iron supplementation is low with only one-third of women taking iron supplements for the recommended 90 days.

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<sup>3</sup> Health seeking behaviour study in East Java and NTT (2014) has shown that convenience (short distance and opening hours) is the main reason for use of private midwife practices in these provinces.

<sup>4</sup> See Social Development Assessment Annex for further details.

**SAFE DELIVERY:** Two-thirds of complications that occur during pregnancy, delivery and the postpartum period are unpredictable. Most maternal and newborn deaths happen at the time of delivery and underpin the Government's policy shift to facility-based deliveries. Government health financing schemes (*Jampersal, Jamkesmas, Jamkesda*) have contributed to the rise in facility-based deliveries from 46% in 2007 to 63% in 2012<sup>5</sup>. There is wide disparity in the use of facility-based deliveries by province, with NTT (41%) for example lagging behind the national average and below the critical 50% level<sup>6</sup>. Some 25% of rural women and 48% of the poorest women are still delivered by a traditional birth attendant (IDHS 2012) generally without access to referral systems and professional back up. Internationally we know that timely access to quality delivery and emergency obstetric care for complications could prevent around two thirds of maternal deaths (Campbell et al., 2006). The continued use of traditional birth attendants (TBA) and delivering at home are contributory factors to maternal mortality in Indonesia. Data from verbal autopsies in three districts found that 63 out of the 76 deaths documented occurred in home births that had been assisted by a TBA. In all but five cases, the TBA had worked alone without support from a skilled birth attendant (GoI, DFID, World Bank, 2010).

The decision to have a facility-based delivery is mediated through a number of factors, including poor knowledge, cultural beliefs, difficult terrain and the availability of cash and transport. Trusting relationships with traditional birth attendants and the multitude barriers that a woman faces in leaving existing children and mobilising family support for a facility delivery often affect the decision to birth at home. These factors are most intense when a complication arises during a home delivery and delays linked to deciding, reaching and receiving quality care happen. In remote areas the cost of reaching the health facility is often the greatest barrier due to poor road and communication systems, which make transportation expensive and difficult (Unair, UGM, Undana, 2013). In addition, upfront payments related to delivery are often still charged. The availability and perceived quality of care available at health facilities also affects the family decision for facility birth. Staff turnover, high absenteeism rates, unavailability of key equipment and drug stock outs, and health staff that lack local language skills all undermine demand for and timely provision of life-saving care (Unair, UGM, Undana, 2013).

The quality of obstetric care in Indonesia is low. The 2012 Maternal Health Services Quality Assessment undertaken by MoH, WHO, and relevant professional associations found major gaps, including lack of knowledge and skills to manage normal deliveries, recognise obstetric and neonatal complications and perform life-saving procedures, and shortages of equipment and supplies. Midwives in rural and remote areas often do not supervise enough births to keep their skills in delivery and dealing with complications current. The overall quality of health workers' education is low and midwives often graduate without core skills and competencies. It concluded that greater efforts are needed to standardise quality of care throughout the health system, improve supervision and monitoring and strengthen accreditation and regulation of public and private providers.

Availability and quality of basic emergency obstetric and neonatal care (BEmONC) is below standard. The 2011 Health Facility Review showed that 60% of districts in Indonesia have less than the Government's recommended four *Puskesmas* providing BEmONC. Lack of key drugs and supplies at *Puskesmas* level is also common and often of commodities key to addressing the highest causes of maternal death (eg oxytocin for postpartum haemorrhage and magnesium sulphate for eclampsia/preeclampsia) (WHO, 2013; World Bank, 2014). Basic standards for clean delivery are also not being met raising the risk of maternal and newborn infection (WHO, 2013).

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<sup>5</sup> Studies show that these schemes have not completely eliminated out of pocket spending on institutional deliveries.

<sup>6</sup> Studies have found that positive effect of institutional delivery on new born mortality could be observed when institutional delivery rate is more than 50%, see Lawn et al (2012), Newborn survival: a multi-country analysis of a decade of change; Health Policy and Planning 2012;27:iii6–iii28.

Almost 25% of in-patient *Puskesmas*, including BEmONC *Puskesmas*, had no transport for referral in 2011 (Health Facility Review, 2011). Lack of financial incentives for lower-level facilities to stabilise and refer on women requiring higher-level care also results in women not receiving the emergency first aid that could save their lives. Increasing the number of *Puskesmas* capable of providing BEmONC and improving their management of obstetric and neonatal emergencies and referrals is critical to preventing maternal and newborn deaths.

Globally about 15% of deliveries involve complications that require hospital level intervention such as caesarean section or blood transfusion. However, in 2011 only 7.6% of District Hospitals met the criteria for comprehensive emergency obstetric and neonatal care (CEmONC) status (*Riskesdas*, 2011). Lack of obstetricians and inappropriate skills mix of staff as well as shortage of equipment are key factors.

**CARE OF THE NEWBORN:** Post-natal care from a skilled provider can reduce maternal and neonatal deaths as most post-partum haemorrhage occurs within 48 hours of birth and up to 30% of neonatal deaths occur within the first 24 hours of life. This is why facility delivery is critical to saving the lives of newborns. Interventions provided by community-based health workers, including home visits, can also have a significant impact on neonatal mortality (Lassi et al 2010; Gogia et al, 2011).

IDHS 2012 found that only 23% of newborns received a postnatal check-up within the first three days, although facility delivery rates were much higher, and 50% of newborns receive a health check-up in the first seven days. Logistical challenges and the demands placed on midwives to juggle clinical, administrative and community outreach tasks means that home visits are at times compromised. This critical window to monitor the health of babies and mothers and support early and exclusive breastfeeding and newborn care is being lost.

Early breastfeeding within the first 24 hours of life reduces newborn mortality. IDHS 2012 found that only 49% of babies were breastfed in the first hour and 66% within one day of birth. Widespread promotion of infant formula, even within government health facilities, undermines early and exclusive breastfeeding and is compounded by the poor quality of midwives' counselling skills and nutrition knowledge. Knowledge of the appropriate caring practices of low birth weight babies is also a major issue given their high prevalence. In some areas, cultural and traditional practices that are harmful to the newborn and mother persist. In NTT many mothers consider colostrum as "dirty milk" and throw it away (WFP 2010), and the practice of putting a woman and her newborn into "smoking huts" for 40 days post-delivery to cleanse the blood continues.

**NEWBORN TO 23 MONTHS :** Ten proven maternal and child nutrition specific interventions have been shown to have the potential to reduce stunting in high nutrition burden countries by a fifth (Black et al, 2013). Most of these interventions are included in Indonesia's policies but implementation is affected by poor family practices, and weak coverage and poor quality of health services. Beyond the pregnancy and newborn period described above, low levels of exclusive breastfeeding for the first 6 months, and poor complementary feeding practices prevail. Only 37% of children between 6 and 23 months are fed appropriately according to WHO infant and young child feeding guidelines (IDHS, 2012). Poor nutrition counselling skills of health providers, and the non-availability of nutrition guidelines at *Puskesmas* level illustrate gaps in the capacity of the health service to affect nutrition outcomes. Child immunisation is sub-optimal with less than 67% of children 12-23 months receiving all basic vaccinations. Treatment of child infection such as in the case of diarrhoea needs improving with only 66% of children with diarrhoea given some form of rehydration therapy.

## THE PRIMARY HEALTH CARE SYSTEM IN INDONESIA

A health system that provides preventive and curative services that is accessible, affordable, efficient, and of adequate quality is crucial to achieving sustainable improvements in population health. International evidence shows that health systems with a strong primary health care orientation tend to be more pro-poor, equitable

and accessible (WHO, 2004)<sup>7</sup>. In fact, the strength of a country's primary health care system is associated with improved population health outcomes delivered at lower cost and with greater patient satisfaction (Starfield, 1992). Delivering primary care services close to where people live and work is cost-effective for the health system as conditions are detected and managed at lower cost than in higher-level facilities; is cost-efficient for families and users as it saves time and money that would have been spent on accessing higher-level services; is more responsive to the social and cultural factors that affect demand, given linkages to communities; and is where convergence of sectors can be put into action. In Indonesia the poor and disadvantaged are by far greater users of primary health care than hospital services. Weak primary health care services affect the poor and vulnerable the hardest.

**SERVICE DELIVERY** Primary health care has to be linked to hospital-level referral facilities in order to provide a continuum of care to patients, as well as being connected to users and communities to promote healthy practices and inform behaviours. These linkages are generally sub-optimal in Indonesia, where health promotion is undervalued and referral systems are under-resourced. The relatively large number of maternal deaths occurring between health facilities reflects the poor functioning of the referral system (World Bank 2010).

Health system gaps related to human resources, equipment and supplies, financing, and information undermine the quality of care provided at the primary level. A 2011 survey on basic health and education supply readiness found significant gaps in primary health care with shortfalls concentrated in the eastern provinces of the Papua region, the Maluku Islands, NTT, as well as the remote areas of Kalimantan and Sulawesi<sup>8</sup>. The availability of essential drugs at health facilities is low at an average of only 70% against a target of 95% and is characterised by large variation across districts in the level of budget allocated to drugs. There are gaps in the number of primary care centres (puskesmas) able to offer Basic Emergency Obstetric and Neonatal Care (PONED) relative to government targets (MoH Renstra 2010 – 2014).

Although it is possible to achieve some results in the short to medium term by adopting a vertical approach to some highly cost-effective health interventions, these results are not sustainable without a functioning health system and undermine the efficiencies of integrated service delivery<sup>9</sup>. Moreover, maternal mortality reduction requires a continuum of care from primary to emergency hospital care and strengthening the building blocks that make up the health system.

Evidence shows that primary health care is best managed within the context of a district health system that can manage the health sub-systems on which delivery of primary level care depends, including for example human resources, supplies, supervision and information. The district level is also where linkages to other sectors of government and the private sector can be augmented<sup>10</sup>.

Indonesia has a growing private sector, which delivers 60 per cent of outpatient visits and receives 43 per cent of inpatient episodes<sup>11</sup>. The public-private make-up of service provision varies across the country with urban areas and more densely-populated districts served by private providers and rural and remote areas dependent on the public sector. Insufficient coverage of primary health care and poor access to hospital level care is an issue primarily in rural areas. Across the country, the quality of care is unreliable. In rural areas, the root cause of quality concerns are linked to geographical access while, in urban areas, the key factor is the large and

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<sup>7</sup> The principles of primary health care include equitable distribution, community participation, an emphasis on prevention, the use of appropriate technology, and inter-sectoral responsibility and the involvement of health and a wide range of other sectoral departments. Primary care also refers to the first contact users have with the health care system.

<sup>8</sup> Sparrow & Vothknecht: *PODES Infrastructure Census 2011: Report on Infrastructure Supply Readiness in Indonesia – Achievements and Remaining Gaps*

<sup>9</sup> Lewin, S., & et al. (2008). Supporting the delivery of cost-effective interventions in primary health care systems in low-income and middle-income countries: an overview of systematic reviews. *The Lancet*, 372:928-39.

<sup>10</sup> Lawn, J., Rhode, J., Rifkin, S., Were, M., Paul, V., & Chopra, M. (2008). Alma-Ata 30 years on: revolutionary, relevant, and time to revitalise. *The Lancet*, 372:917-27.

<sup>11</sup> Ministry of Health. (2014) *draft Health Sector Review*. Indonesia.

unregulated private sector<sup>12</sup>. Private midwives in urban areas have, for example, been found not to comply with protocols for antenatal care and referral of complicated deliveries despite proximity to hospitals. Even though private sector health care is generally of a very poor standard, it is often better trusted by the population than government services and leads to higher out of pocket spending on health.

It is too soon to judge the impact of the national health insurance scheme on the quality of primary health care but, since the focus of its funding and administration is on hospital care, it is not emerging to be a priority. There are also concerns that the quality and supply of health services will not be adequate to meet what is likely to be increased demand and expectations from the community. Improving the quality of care in urban Indonesia where the private sector is prolific will require innovative public-private partnerships and strong regulation and supervision of the private sector. In contrast, in disadvantaged rural areas, such as NTT and NTB, the priority will be “getting the basics right”: that is, strengthening government health systems, improving coverage of primary level services and establishing functional referral systems to support a continuum of care.

**GOVERNANCE** While the Indonesian Ministry of Health generally sets sound health policies, the delivery of services is entirely devolved to Indonesia’s more than 500 district governments, over which the Ministry of Health has no authority. There are weak mechanisms of regulation, policy implementation and performance monitoring.

Government-wide decentralisation in Indonesia shifted responsibility for financing, planning and delivering health care to the district level. However, many districts have not yet developed the capacity to plan and manage their health budgets, pay staff salaries, identify local health needs and set targets and monitor progress<sup>13</sup>. Districts are also constrained by national regulations, which set civil service terms and conditions and central control of health worker deployment. Health staffs in the district report to the district government, which reports to the Ministry of Home Affairs; such an arrangement has the potential to neglect technical oversight and standards.

Levels of authority, decision-making and coordination have lost clarity with decentralisation. Decentralisation’s legal framework vests authority for most decision making relating to service delivery at the district level, with provinces being able to set province-wide policies and frameworks governing this delivery. The national level has an important role to play in setting policy and standards for service delivery and monitoring their implementation, as well as in health financing. However, in reality the influence of national and provincial authorities in ensuring the delivery of adequate health services is very limited. This is particularly true when authority over some functions of the health system is spread across multiple agencies.

While the mechanisms for decentralising fiscal and political authority have been fairly well defined, even though extremely complicated, the mechanisms for ensuring accountability are still unclear. As a result, the MOH and other central ministries have very limited control over resource allocations (financial and human) at the levels at which services are delivered.

In Indonesia’s decentralised system, the Ministry of Home Affairs plays a crucial role in overseeing local levels of government. Health services in each district are under the control of the *Bupati* (the elected district “regent”), and the *Bupati* reports in theory to the Ministry of Home Affairs (not to the Provincial Governor), although the accountability is weak.

The Ministry for National Development Planning (“*Bappenas*”) plays a central role in setting national plans and priorities and in coordinating between various line ministries. Its branches at local levels, the “*Bappeda*”, play

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<sup>12</sup> Soto, E., & et al. (2013). Investment case for improving maternal and child health: results from four countries. *BMC Public Health*, 13:601.

<sup>13</sup> World Bank . (2006). *Making the New Indonesia Work for the Poor*. Jakarta: World Bank.



very important roles in allocating resources and coordinating development activities across multiple sectors, but these report primarily to the *Bupati*, not to *Bappenas*.

The Ministry of Finance is responsible for seeing that centrally allocated resources are used in accordance with national regulations. The Ministry of National Education licenses and oversees private training facilities for health workers, which are many, outnumbering those operated by Ministry of Health. This institutional complexity means that any Australian support for health in Indonesia has to engage with a multiplicity of stakeholders at several different levels.

Indonesia has a growing private sector, which given the gaps in public health services will take a larger role in the move to universal coverage. Regulation of private practice is complicated by the fact that public health providers are legally allowed to provide private practice after hours; so called dual practice. This introduces perverse incentives and affects the willingness of doctors to take up rural postings where private practice is less lucrative than in urban areas, and is one of several factors affecting high rates of absenteeism.

Weak regulation of products harmful to health and their advertising, such as infant formula, cigarettes and highly processed foods negatively impact health outcomes. The widespread promotion of infant formula in hospitals and health clinics by health workers contributes to poor breastfeeding practices and neonatal mortality. Smoking is a leading contributor to the increasing rates of cardiovascular and other non-communicable diseases in the country.

**HEALTH FINANCING** The Indonesian health system is chronically underfunded with GoI spending only 1% of GDP on health, one of the lowest figures in the world. Currently the government underfunds interventions that maximise health improvements for most people at the lowest cost. This not only undermines efficiency, but also equity, since it is the poor who typically suffer the greatest disease burden and would benefit the most.

Overall health expenditure in Indonesia per capita is comparatively low at \$81, compared with \$130 in the Philippines. Some 62% of expenditure is privately financed (MoH, 2013). Household out of pocket payments which are particularly damaging for the poor continue to represent a large share of health spending (46.9% of total health expenditure), with 48% of out of pocket expenditure made on hospital care, 22% on outpatient and ambulatory care, and 30% on retail purchase of medical supplies<sup>14</sup>. Efforts to increase health insurance coverage of the poor through Askesin and then Jamkesmas have seen improvements and an increase in utilisation rates, though most recent estimates suggest that only 40 percent of the poor and near poor were insured (2013). Many of the uninsured in this group are informal sector workers that are especially difficult to reach<sup>15</sup>. Even for those with health insurance out of pocket spending remains high. GoI intends to further close the health insurance coverage gap and improve health protection through JKN though it is too early to assess performance on this front.

The Indonesia Public Expenditure Review (2007) found that public spending on health benefits richer groups more than the poor through subsidies on secondary care, which accrue to wealthier quintiles. The Review found that 40% of public spending went to secondary hospitals of which 38% of the benefit was accrued by the wealthiest quintile and only 10% by the poorest. Poorer groups use significantly more primary level health services than hospital care. Targeting greater resources to puskesmas and below will make use of public health funds more equitable, and improve health outcomes. Public health spending is also distributed inequitably between geographical areas<sup>16</sup>.

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<sup>14</sup> Ministry of Health. (2013) National Health Accounts.

<sup>15</sup> Harimurti et al (2013) in Universal Health Coverage Study Series (UNICO).

<sup>16</sup> Ministry of Health. (2014) *draft Health Sector Review*. Indonesia.

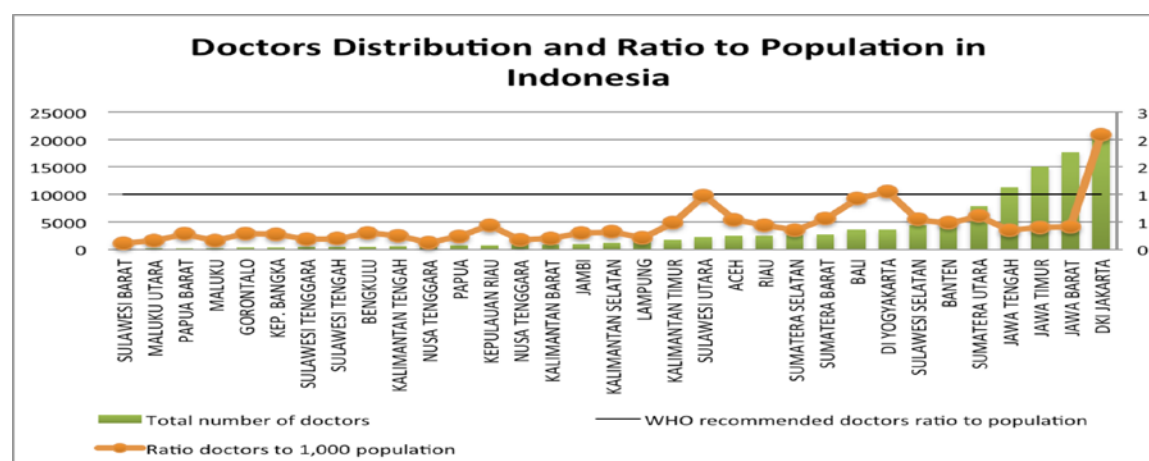


Health financing is highly fragmented and budget decisions are made at every level. Some finances (such as national health insurance) flow directly from national level, some going straight to health facilities and some to districts. Some finances are earmarked for the district health budget and others go unallocated into the broader district finances for subsequent allocation to health according to local budget decisions. Other funding is channelled via the province. The regional transfer system that transfers half of the discretionary government resources to local government has little if any performance criteria and service delivery suffers. The proportion of public spending on health financed by districts is increasing and reached 44% in 2011.

Each funding stream having its own administrative requirements further complicates the situation. The slow budget approval process often results in the first resource disbursement occurring halfway through the year. District governments lack the capacity to effectively manage these complex funding arrangements. In 2006, only 73 per cent of the money allocated to health was spent. According to government legislation, districts should allocate 10% of their budget for health, but the evidence suggests that many districts, particularly poor ones, fail to reach this target. The number of funding sources will be simplified with the introduction of JKN though the implications for financing of primary care services are not yet clear.

**HUMAN RESOURCES FOR HEALTH** Several fundamental issues affect the availability of skilled health workers in Indonesia. The low density of nurses and doctors per population compared to other middle-income countries translates into coverage gaps, especially in rural and remote areas<sup>17</sup>. Secondly, the uneven distribution of health personnel is fuelled by the legality of dual practice and the preference to be posted in urban areas where earning potential is greater. For example, the ratio of general practitioners per 100,000 population varies from 156 in DKI Jakarta to 10.7 in NTT; and for specialists 52.75 in DKI Jakarta compared to 1.64 in NTT (BPS 2010)<sup>18</sup>. Staff absenteeism is common and reaches 40% at the primary care level<sup>19</sup>. Fourthly, restrictive national regulations on the hiring of health workers as civil servants limits the scope for districts to innovate and find local solutions to staff shortages.

Figure 3: Doctor distribution and ratio to population in Indonesia, BPS 2010<sup>20</sup>



**SUPPLY CHAIN AND LOGISTICS** The supply of medicines and commodities through the public sector in Indonesia is a complex system involving different levels of government and non-government agencies. The

<sup>17</sup> World Bank, 2007, Public Expenditure Review. <http://siteresources.worldbank.org/INTINDONESIA/Resources/226271-1168333550999/PER-4Health.pdf><http://siteresources.worldbank.org/INTINDONESIA/Resources/226271-1168333550999/PER-4Health.pdf>

<sup>18</sup> Badan Pusat Statistik. (2012). Indonesia.

<sup>19</sup> World Bank. (2008). *Investing in Indonesia's Health: Challenges and Opportunities for Future Public Spending*.

<sup>20</sup> Taken from the presentation of Prof Laksono: "Scenarios for achieving Universal Health Coverage in Indonesia in the National Health Insurance era".

public sector comprises hundreds of districts, each with multiple puskesmas and sub-centres, as well as hospital facilities. There are significant problems with cohesion and overall functioning of the pharmaceutical sector. Although there are notable exceptions, there appear to be problems identified all the way through the chain, from having adequate data for planning procurement, to warehouse management, to human resources skilled in managing supply at the province and district level. The quality of facilities and the human capacity and skills to manage the supply and logistics system is an ongoing problem.

**INFORMATION SYSTEMS** Weaknesses in the collection and use of information exist at various levels of the health system. Within a district, information collected through registers and databases (posyandu, polindes, pustu, puskesmas, jamkesmas, jampersal) are not connected. Lack of standardised reporting formats and registers further fragments data, and hinders its use for district planning and management.

Decentralisation has weakened the role of the province, which has undermined the sharing of experience and learning across districts. Flows of information up to the centre and back down to district are also sub-optimal, and national policy decisions are at times disconnected from the diverse ground realities across the country. Better evidence generation, analysis and dissemination through national, regional and local networks are necessary to maintain consistency and validity between policies developed at national and district level and to ensure maximum benefit from evidence and experience.

#### IMPLICATIONS OF THE NEW VILLAGE LAW FOR HEALTH

In 2015-16, substantial changes to resources flowing from national government to villages will occur through the commencement of arrangements under the new Village Law. The village will have authority over a much larger budget, with attendant expectations on increased accountability and inclusive decision-making. Key resources for the improvement of maternal and newborn health and primary care, such as the integrated health posts (Posyandu), local water and sanitation and village roads are directly under the authority of the village head and council. Authority will be allocated from the district to the village for increasing access to basic services and the maintenance and upkeep of village level buildings, including health facilities such as the Polindes. A number of groupings and institutions exist at village level currently causing fragmentation and disagreement in priorities and strategies for sectors that should work together to improve health (village institutions study) and the village law seeks to address these. The integrated deliberative village forum now mandated in the village law, and which includes citizens, village officials and special group representatives, will be an important forum to ensure that constraints to maternal and newborn health and nutrition services are raised and brought to Puskesmas community health boards at the sub district level.