The symposium will be devoted to highlight the regional experience from innovative health projects on improving neonatal health in South-East Asian countries; the lessons learnt and the recommendations for improving the same in the region. The examples will be taken from different South-East Asian countries according to the stages of socio-economic development of individual countries. The reforms in neonatal health will be compared across the region within the context of rapid demographic, health and socio-economic development. The speakers will address the main features of innovative projects; how these have affected the health of the neonate, and the lessons learned. The countries of the Region have 25% of the global population and more than 40% of neonatal deaths. After a steady decline in infant mortality rate, there is stagnation attributable to continued high neonatal mortality rates. In several countries, neonatal mortality is about two-thirds of infant mortality. Early neonatal deaths are two-thirds of neonatal mortality. Deaths during the first day of life are two-thirds of early neonatal deaths. The data on cause of death is unsatisfactory. In the hospitals, prematurity tops the list of causes. The incidence of LBW is high in the countries of the Region varying from 57% in Thailand to 50% in Bangladesh. Implementation of simple interventions with proven effectiveness on neonatal outcomes needs to be accelerated at the country level. In addition there is a need to identify the most cost-effective interventions to manage the neonates at first level health facilities and referral institutions and promote their implementation. There is an urgent need for creating a niche for the neonates in existing programmes. The Millennium Development Goals (2015) of reducing under five and infant mortality rates cannot be realised unless neonatal mortality declines by about 50% of the current levels. Neonatal mortality is quite amenable to reduction, since evidence-based, affordable and effective interventions are available to improve neonatal health and reduce neonatal mortality. The recommendations of the symposium would help the counties of the region in scaling up of successful programmes and also modifying the ongoing programmes.

**RW1-2.1** REDUCING INFANT MORTALITY THROUGH IMPROVED SUPPORTIVE SUPERVISION UNDER IM(N)CI: EXPERIENCES FROM INDIA

G Arya.* Unicef, Lucknow, Uttar Pradesh, India

IMNCI has been implemented in India with a view to reduce neonatal and infant mortality by strengthening community based management of neonates, infants and children. First 10 days of neonatal life are very critical. IM(N)CI envisages 3–6 home visits to neonates within first 10 days of life. It has been shown in several studies that home visit by a health worker reduces the chances of neonatal death. A field-worker trained in supportive supervision of IMNCI, visits previously trained IMNCI worker, evaluates her field activities and skills and provides her hands-on in-situ training. The worker is revisited and supported six times over a period of 1 year and her performance reviewed again on key indicators. The changes in field performance, skills and its outcomes are noted by the field worker through a structured format and analysed by a data analyst in excel. The trained workers were given composite scores on four key areas of performance viz. Assessment, Classification, Treatment and Counselling over six supportive supervision visits.

There is a significant improvement in the scores of all four areas of performance that is, from 50 to 78% for Assessment, 2–70% for classification, 10 to 74% for treatment and 9 to 51% for counselling. Hands-on in-situ supervision (supportive supervision) has the potential to be a potent tool in improving the efficacy of IMNCI and thereby reducing neonatal mortality in the country.

**RW1-2.2** FACTORS CONTRIBUTING TO REDUCTION OF INFANT MORTALITY IN SRI LANKA

S Vidanapathirana.* Consultant Community Physician, National STD/AIDS Control Programme, Colombo, Sri Lanka

Sri Lanka is a lower middle income country with per capita income of <US$1024 and is expected to achieve middle income level in the near future. The infant mortality rate in the country was as high as 263 per 1000 births in year 1955 and at present it is 11 per 1000 live births although there are district disparities. A rapid decline in infant mortality rate is attributed to change in the health policy in Sri Lanka which has lead to the diffusion of maternal and child healthcare services throughout the country with a focus on the domiciliary and institutional care to the mother and child. A strong infrastructure has also been established at the community level with development of a cadre of public health and institutional midwives. The focus of the care is to provide prenatal, antenatal, natal and postnatal care to the mothers and follow-up care of infants by early registration of pregnant women and interventions through public health midwives. The system is also streamlined by continuous monitoring by supervising officers, supported by proper record keeping. The infant mortality rate has further been reduced by improving institutional deliveries (94%), free healthcare, elimination of neonatal tetanus, improvement in female literacy rate (88%) and a high immunisation coverage (98%) of pregnant mothers and infants.

**RW1-2.3** REDUCING NEONATAL MORTALITY: THE BANGLADESH EXPERIENCE

S H Talukder.* Eminence, Dhaka, Bangladesh

Bangladesh experienced a dramatic decline in infant and under-5 mortality from 153 to 65 and 87 to 52 respectively whereas neonatal deaths only 52 to 57 deaths per 1000 live births during 1994 to 2007. The national level policies and guidelines related to child health, five series of Bangladesh Health and Demographic Survey (BDHS) reports, 507 articles published in PubMed have been studied to identify the information related to the objectives of the paper.

The average annual rate of reduction of children mortality was 9.4% in the age-group 1–4 years, 5.8% among 1–11 month old infants and only 2.6% for neonates, on the other aspect the overall rate of reduction of under-5 mortality was 4.9%. More than half (57%) of under-five deaths in Bangladesh occur in the neonatal period. Neonatal health has recently become a priority concern for government and UN and other organisations who have made contributions to develop policy guidelines to reduce infant mortality.
mortality. The research related to neonatal health in different programmes shows that a post-delivery visit within 3 days by the health workers linked with strong supervision and monitoring system is the most important factor for reducing neonatal mortality. Thus, the programme design needs to focus on the quality monitoring and supervision system as well as improvement in the awareness activities among the community to ensure the target of reducing neonatal mortality.

**IMPROVING NEONATAL HEALTH IN THAILAND**

S Tripathi.* National Institute for Child and Family Development, Mahidol University, Thailand

The neonatal mortality rate in the country has shown a rapid decline from 14.8 per 1000 in 1990 to 6.5 per 1000 in 2010. This has been possible through various projects implemented from time to time which include 10 Steps for Breastfeeding; Mother and baby-friendly Hospital; Action for Safe Motherhood Program; Thalassemia Prevention and Control project; Reduction of birth asphyxia project; Prevention of mother to child transmission of HIV/AIDS; the Nutrition and Development Corner and Healthy Daycare Center Project.

Approximately 97.9% of all births in Thailand take place in a hospital or institution, and are assisted by professionally trained health personnel (doctors/nurses/ midwives). If the birth occurs at home assisted by others, that is, village health volunteer, traditional birth attendant, the midwife or a doctor or nurse would make a follow-up visit to check on the health of the woman and the baby. The MCH services system at community level is complemented by the hospital component, made up of a network of community hospitals at district level, provincial, regional hospitals, MCH hospitals, and university hospitals. All levels are linked together by an established referral system. All pregnant women are given the MCH Booklet and Pregnancy Pathway at the rst antenatal visit.

The new universal health insurance policy of government since 2002 in a form of capitation payment system guarantees healthcare for all.

**IMPROVING NEONATAL HEALTH IN SOUTH-EAST ASIA REGION: CURRENT STATUS**

V K Srivastava.* 1King George’s Medical University, Lucknow, India; 2Regional Councillor, IEA-SEA Region

The countries of the Region have 25% of the global population and more than 40% of neonatal deaths. After a steady decline in infant mortality rate, there is stagnation attributable to continued high neonatal mortality rates. In several countries, neonatal mortality is about two-thirds of infant mortality. In the hospitals, prematurity tops the cause of deaths while in the community, infections lead the list of causes. The incidence of LBW is high in the countries of the Region varying between 7% in Thailand to 50% in Bangladesh. Implementation of simple interventions with proven effectiveness on neonatal outcomes needs to be accelerated at the country level. In addition there is a need to identify the most cost-effective interventions to manage the neonates at rst level health facilities and referral institutions and promote their implementa-

**Western Pacific Regional Workshop**

**USING NATIONAL STATISTICAL DATA IN EPIDEMIOLOGIC RESEARCHES**

Y Nakamura.* Jichi Medical University, Shimotsuke, Tochigi, Japan

Many of epidemiologic researches are based on individual health data, and epidemiologists get them for the researches directly from participants of the researches. This is the orthodox way to conduct an epidemiologic research, but some epidemiologists get individual information using national statistical data, such as vital statistics. For example, in a cohort study of which endpoints are death, it is easier and the validity is higher if an epidemiologist uses vital statistics rather than the epidemiologist makes efforts to get fetal information from individual participants. In Japan, Annual Comprehensive Survey of Living Conditions includes data concerning health every 3 years so that if an epidemiologist could link the data and vital statistics individually, a cohort study would be constructed with a large and nationwide random sample.

The condition to use the national statistical data differs among countries and areas. For example, the National Death Index system is available in Korea so that cohort studies with fetal endpoints are easier to be conducted than in countries without the system. Although it has become easier to use national statistical data in Japan nowadays than in the past because of a partial amendment of the Statistical Act, epidemiologists in Japan have to make more effort to use the data than in other countries.

In the workshop, epidemiologists in the Western Pacific regions, such as Korea, China, Australia, New Zealand, and Japan, present their situation, and how to make it easier to use the national statistical data for research.

**Sub Saharan African Regional Workshop**

**IEA REGIONAL WORKSHOP FOR SUB SAHARAN AFRICA**

J Nachega*, 1Newton Kumwenda*, K Akinroye*. Johns Hopkins Bloomberg School of Public Health in Baltimore, Maryland, USA; 2Johns Hopkins Centre for Global Health, Maryland, USA, IEA; 3African Heart Network, Africa

Objectives will include taking stock of the current status of epidemiology in the region, discussing the main challenges faced by local epidemiologists and how to strengthen IEA presence in the region.