

Supplementary Table 1: Baseline information of participating networks and countries

| | Indonesia | Japan | Korea | Malaysia | Philippines | Singapore | Sri Lanka | Taiwan | Thailand |
|--|----------------------|------------------------------|------------------------------|----------------------|----------------------|----------------------|---------------------------------|--|----------------------|
| Gross domestic product (per capita, \$USD; 2020) ^a | 3870 | 39990 | 31947 | 10402 | 3299 | 58114 | 3729 | 25026 ^l (2018) | 7189 |
| Gini index ^b | 37.9 (2021) | 32.9 (2013) | 31.4 (2016) | 41.1 (2015) | 42.3 (2018) | NA | 39.3 (2016) | 34 ^m (2020) | 35.0 (2020) |
| Health expenditure (% of gross domestic product; 2019) ^b | 2.9 | 10.75 | 8.14 | 3.84 | 4.17 | 4.42 | 3.66 | 6.1 ⁿ (2018) | 3.86 |
| Mother's mean age at first birth ^c | 22.4 (2017) | 30.7 (2018) | 32.2 (2019) | NA | 23.5 (2017) | 30.5 (2015) | 25.6 ^f (2016) | 32 ^o (2018) | 23.3 (2009) |
| Maternal mortality ratio (per 100 000 live births; 2017) ^d | 177 | 5 | 11 | 29 | 121 | 8 | 29 ^e (2020) | 13 ^m (2020) | 37 |
| Birth rate, crude (per 1000 people; 2020) ^b | 17.4 | 6.8 | 5.3 | 16.4 | 19.9 | 8.5 | 13.8 ^h (2020) | 7.7 ^p (2018) | 10.0 |
| Preterm birth rate (per 100 live births; 2010) ^a | 16.0 | 6.0 | 9.0 | 12.0 | 15.0 | 12.0 | 7.9 ⁱ (2014) | 9.3 ^q (2010) | 12.0 |
| Low birth weight rate (%; 2015) ^d | 10 | 9.5 | 5.8 | 11.3 | 20.1 | 9.6 | 16.1 ^j (2018) | 9.04 ^r (2010) | 10.5 |
| Neonatal mortality rate (per 1000 live births; 2020) ^d | 11.7 | 0.8 | 1.5 | 4.6 | 12.6 | 0.8 | 4 ^k (2021) | 2.4 ^s (2019) | 4.9 |
| Infant mortality rate (per 1000 live births; 2020) ^d | 19.5 | 1.8 | 2.6 | 7.4 | 20.9 | 1.8 | 6 ^k (2021) | 3.8 ^s (2019) | 7.4 |
| Cause of death 1st (0-1 year; 2019) ^e | Prematurity | Congenital anomalies | Prematurity | Prematurity | Prematurity | Congenital anomalies | Congenital anomalies | Congenital anomalies ^s | Prematurity |
| Cause of death 2nd (0-1 year; 2019) ^e | Acute LRI | Prematurity | Congenital anomalies | Congenital anomalies | Acute LRI | Prematurity | Prematurity | Perinatal Respiratory disease ^s | Congenital anomalies |
| Cause of death 3rd (0-1 year; 2019) ^e | Congenital anomalies | Sudden infant death syndrome | Sudden infant death syndrome | Acute LRI | Congenital anomalies | Acute LRI | Hypoxic ischemic encephalopathy | Prematurity ^s | Acute LRI |

Abbreviations: LRI: lower respiratory infection, NCD: non-communicable disease

a: UN Data (<https://data.un.org/>)

b: World Bank (<http://data.worldbank.org/products/wdi>)

c: Central Intelligence Agency, World Fact book (<https://www.cia.gov/the-world-factbook/field/mothers-mean-age-at-first-birth/>)

d: UNICEF Data (<https://data.unicef.org/#>)

e: World Health Organization (<https://www.who.int/data>)

f: Sri Lanka Demographic and Health Survey 2016. (<http://www.statistics.gov.lk/Resource/en/Health/DemographicAndHealthSurveyReport-2016-Chapter4.pdf>)

g: Family Health Bureau. Ministry of Health Sri Lanka

h: Department of Census and Statistics of Sri Lanka
(<http://www.statistics.gov.lk/Population/StaticInformation/VitalStatistics/CrudeBirthRatesCrudeDeathRatesProvinceDistrictSex2019-2022>)

i: Jayaratne K, Perera D, Jayathilake A, Agampodi SB. WHO multicountry survey on maternal and newborn health Country report Sri Lanka. Colombo: Family Health Bureau. 2014.

j: Family Health Bureau. Annual Report of the Family Health Bureau, Ministry of Health Sri Lanka, 2019.

k: UN Interagency Group for Child Mortality Estimation. Levels and Trends in Child Mortality: Report 2022. 2023.

l: CEIC Data (<https://www.ceicdata.com/en/indicator/taiwan/gdp-per-capita>)

m: Statista.com (<https://www.statista.com/markets/>)

n: Taiwan Insight (<https://taiwaninsight.org/2020/10/08/sustaining-taiwans-high-performing-national-health-insurance-a-call-to-invest-in-health/>)

o: The Taipei Times (<https://www.taipaitimes.com/News/taiwan/archives/2020/04/12/2003734468>)

p: Trends in birth rate provided by the National Development Council, Taiwan (<https://pop-proj.ndc.gov.tw/chart.aspx?c=1&uid=61&pid=60>)

q: Live Births and Still Births by Weeks of Pregnancy (<https://www.hpa.gov.tw/File/download/themeParkId=542/000804/1.13b.pdf>)

r: 2015 Statistics of Birth Reporting System by Health Promotion Administration, Ministry of Health and Welfare, Taiwan (Page 47)
(https://www.hpa.gov.tw/Pages/ashx/File.ashx?FilePath=~/File/Attach/1266/File_2470.pdf)

s: Ministry of Health and Welfare, Taiwan (<https://www.mohw.gov.tw/np-125-2.html>)

Supplementary Table 2: Information of neonatal care and neonatal research networks

| | | Indonesia | Japan | Korea | Malaysia | Philippines | Singapore | Sri Lanka | Taiwan | Thailand |
|---|--|---|---------------------------------|------------|--|---|---|---------------|------------------------------|---|
| Birth places of newborn infants (term or preterm infants) | Home | 16% | < 1% | 0.5 % | 1 % | 9% | < 1% | < 1% | < 1% | 3-5 % |
| | Birth center | 29% | < 1% | 1.1% | < 1% | NA | 0% | 0% | < 1% | 0% |
| | Clinics | 18-22% | 45% | NA | NA | 33% | 0% | 0% | 28% | 0% |
| | Hospitals | 33% | 54% | 98.4% | 95% | 57% | > 99 % | > 99 % | 72% | 95-97 % |
| | Other places | NA | 0% | 0.03% | 2% | < 1% | 0% | 0% | < 1% | 0% |
| Neonatal resuscitation program (NRP) | | Indonesian NRP | Japanese NRP | AAP's NRP | AAP's NRP | NRPhPlus | Singapore NRP | Sri Lanka NRP | AAP's NRP (modified) | AAP's NRP |
| The lowest GA or BW of infants resuscitated (Viability) | The lowest GA | 25-26 weeks | 22 weeks | 22 weeks | 24 weeks | 24-25 weeks | 23 weeks | 23weeks | 22-23 weeks | 23 weeks |
| | The lowest BW | 600 g | 250-300 g | >300 g | 500 g | 400 g | 400 g | 400-500 g | 300-400 g | 500 g |
| Who pay the cost of NICU care of preterm infants? | | Some patients use national insurance which do not cover all the needs. Others use their own money | National insurance & Government | Government | Government in public hospital. Individuals in private hospital | National insurance run by private company but supported by Government | Patients and government as co-pay system (Full subsidy for patients with very low income) | Government | Government | Government (Rare cases paid by their own parents) |
| Neonatal research networks (NRN) with registries of VLBW infants | Existence of NRN | NO | YES | YES | YES | NO | NO* | NO | Yes | YES |
| | Inclusion criteria of the registries | NA | GA < 32 weeks or BW ≤ 1500g | BW < 1500g | GA < 32 weeks or BW 500-1500g | NA | GA < 32 weeks or BW ≤ 1500g * | NA | GA ≤29 weeks or BW 401-1500g | GA <32 weeks or BW < 1500 g |
| | Population coverage of the registries | NA | 50-60 % | 87% | 70-80 % | NA | >80 %* | NA | 70% | No data |

The information in the table is based on the personal understanding of the steering committee members regarding NICU care in their respective countries.

* There is no national registry of VLBW infants in Singapore. However, the three NICUs manage more than 80% of VLBW infants born in the country, and each of them have their own unit database of VLBW infants.

Abbreviations: AAP, American Academy of Pediatrics; BW, birth weight; GA, gestational age; NA, not applicable or unavailable; NICU, neonatal intensive care unit; NRN, neonatal research network; NRP, neonatal resuscitation program.

Supplementary Table 3: Availability of treatment and diagnostic tests

| | | Indonesia | Japan | Korea | Malaysia | Philippines | Singapore | Sri Lanka | Taiwan | Thailand |
|----------------------------|--|-------------------|------------------|--------|-----------|-------------|-----------|------------|-----------|-----------|
| Availability of treatments | Incubators | Mostly | Mostly | Mostly | Mostly | Often | Mostly | Mostly | Mostly | Mostly |
| | Surfactant | Sometimes | Mostly | Mostly | Mostly | Sometimes | Mostly | Mostly | Mostly | Often |
| | Mechanical ventilation | Sometimes | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly |
| | HFO | Rarely | Mostly | Mostly | Mostly | Rarely | Often | Often | Mostly | Sometimes |
| | CPAP | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly |
| | Peripherally inserted central catheter | Often [about 50%] | Mostly | Mostly | Mostly | Sometimes* | Mostly | Sometimes* | Mostly | Sometimes |
| | Total parenteral nutrition | Sometimes | Mostly | Mostly | Mostly | Often | Mostly | Never | Mostly | Often |
| | Probiotics | Sometimes | Mostly | Mostly | Rarely | Rarely | Sometimes | Rarely | Often | Rarely |
| | Donor milk | Rarely | Mostly | Rarely | Rarely | Sometimes | Mostly | Rarely | Mostly | Rarely |
| | Indomethacin | Never | Mostly | Never | Mostly | Sometimes | Mostly | Rarely | Often | Often |
| | Ibuprofen | Rarely | Mostly | Mostly | Mostly | Sometimes | Mostly | Rarely | Mostly | Sometimes |
| | Corticosteroids | Sometimes | Mostly | Mostly | Mostly | Often | Mostly | Mostly | Often | Often |
| | Caffeine | Sometimes | Mostly | Mostly | Often | Rarely | Mostly | Never | Rarely | Never |
| | Inhaled nitric oxide (iNO) | Rarely | Mostly | Mostly | Sometimes | Never | Often | Often | Mostly | Rarely |
| Therapeutic hypothermia | Often [about 50%] | Mostly | Mostly | Mostly | Mostly* | Mostly | Often | Mostly | Sometimes | |
| Availability of tests | Pulse oximeter (SpO2 monitor) | Often | Mostly [80-101%] | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly | Mostly |
| | Electrocardiogram monitor | Often | Mostly | Mostly | Mostly | Sometimes | Mostly | Mostly | Mostly | Rarely |
| | Transcutaneous CO ₂ monitor | Rarely | Mostly | Often | Rarely | Rarely | Mostly | Never | Sometimes | Rarely |
| | Brain ultrasound | Sometimes | Mostly | Mostly | Mostly | Mostly | Mostly | Sometimes | Mostly | Sometimes |
| | Echocardiography | Sometimes | Mostly | Mostly | Often | Often | Mostly | Sometimes | Mostly | Sometimes |
| | aEEG | Rarely | Often | Often | Sometimes | Rarely | Often | Often | Sometimes | Rarely |

* Available only in level-III NICUs.

The information in the table is based on the personal understanding of the steering committee members regarding NICU care in their respective countries.

The words of “Mostly”, “Often”, “Sometimes”, “Rarely”, and “Never” indicate the proportions of 80-100%, 50-79%, 20-49%, 1-19%, and <1 %, respectively.

Abbreviations: aEEG, amplitude-integrated electroencephalogram; CPAP, continuous positive airway pressure; CO₂, carbon dioxide; HFO, high-frequency oscillation; SpO₂, oxygen saturation.