

Determinants of infant mortality in Indonesia

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Abstrak

[ABSTRAK

Salah satu tujuan pembangunan milenium dari tahun 1990 sampai dengan 2015 adalah mengurangi tingkat kematian balita hingga dua per tiga. Sampai dengan saat ini, Indonesia telah berada pada jalur yang tepat dalam mencapai target tersebut. Akan tetapi, perkembangan yang lambat pada penurunan kematian bayi menunjukkan bahwa diperlukan perhatian lebih untuk meningkatkan keselamatan pada bayi usia muda. Termotivasi oleh kondisi tersebut, penelitian ini hendak mengidentifikasi determinan kematian bayi di Indonesia pada tahun 1997 sampai dengan 2012 menggunakan data Indonesia Demographic and Health Survey (IDHS) periode ke 4, 5 dan 6. Disamping itu, penelitian ini juga bertujuan untuk mengidentifikasi eksternalitas yang dapat diperoleh dari investasi pada pendidikan ibu, sarana dan prasarana yang memadai pada sumber air minum dan sanitasi, serta vaksinasi anak di lingkungan sekitar rumah tangga. Kerangka konseptual dari penelitian ini didasarkan pada kerangka teoritis Mosley dan Chen (1984). Penelitian ini menggunakan regresi logistik untuk mengestimasi pengaruh dari berbagai macam faktor yang mempengaruhi kematian bayi.

Hasil regresi menunjukkan bahwa faktor bio-demografis, yakni karakteristik ibu dan anak adalah faktor kunci dalam memprediksi kematian bayi di Indonesia. Bayi berjenis kelamin pria, anak kembar, ibu dengan tingkat kelahiran tinggi, jarak kelahiran yang pendek antar bayi, usia ibu diatas 35 tahun, dan komplikasi kehamilan merupakan faktor-faktor yang terbukti berhubungan positif dengan kematian bayi. Faktor perilaku antara lain institusi kelahiran, pengetahuan tentang cairan rehidrasi oral, dan praktek kontrasepsi merupakan faktor-faktor penting yang memiliki hubungan negatif dengan kematian bayi. Selain itu, higienitas pada tempat tinggal seperti ketersediaan sumber air minum yang bersih, kepemilikan toilet pribadi, dan penggunaan material lantai yang lebih baik juga merupakan faktor penting yang dapat meningkatkan status ketahanan hidup bayi di Indonesia. Beberapa variabel sosio ekonomis juga terbukti merupakan determinan penting dari tingkat kematian bayi di Indonesia. Diantara berbagai jenis faktor tersebut, jumlah anggota rumah tangga merupakan faktor yang memiliki keterkaitan yang paling kuat dengan kematian bayi. Pada level komunitas, regional Sumatra dan Kalimantan pada periode 2012 memiliki tingkat keterjadian kematian bayi yang lebih rendah dibandingkan dengan regional Jawa dan Bali sedangkan regional Sulawesi pada periode 2007 memiliki tingkat keterjadian kematian bayi yang lebih tinggi. Lebih lanjut, penelitian ini

menemukan bahwa partisipasi masyarakat pada program imunisasi pemerintah nasional memberikan efek eksternalitas yang positif pada tingkat ketahanan hidup bayi di Indonesia

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ABSTRACT

Reduction of under-five mortality rate by two-thirds between 1990 and 2015 is a Millennium Development Goal (MDG). Indonesia has been on track in achieving the MDG target on under-five mortality. However, slower progress on infant mortality reduction shows that more attention should be given in order to improve the survival of younger children. Motivated by this situation, this study attempts to identify determinants of infant mortality in Indonesia between 1997 and 2012 using the 4th, 5th and 6th rounds of the Indonesia Demographic and Health Survey (IDHS) data. In addition, the study aims to identify externalities which may be generated by investments in mother's education, water and sanitation, and child vaccination by a household's neighbors. The conceptual framework is based on Mosley and Chen (1984). Logistic regressions are used to estimate the effect of a variety of factors on infant mortality.

The regression results shows that bio-demographic factors which include child and maternal traits are key predictors of infant mortality in Indonesia. Male sex, birth multiplicity, higher birth rank, shorter birth interval, mother age above 35 years, and complication during pregnancy are positively related to infant mortality. Behavioral practices such as institutional delivery, knowledge of Oral Rehydration Solutions (ORS), and especially contraceptive practice are also important factors that negatively related to infant mortality. Moreover, household's hygiene characteristics such as safe drinking water source, private toilet, and improved flooring materials are also important factors that increase infant survival status in Indonesia. Some socio economic variables are also found to be significant determinants of infant mortality in Indonesia. Among the various factors, the number of household members is the strongest factors related to infant mortality. At the community level, Sumatra and Kalimantan regions in 2012 have lower odds of infant mortality, whereas Sulawesi region in 2007 has higher odds of infant mortality as compare to Java and Bali. Furthermore, the study finds that immunization participation in the community has a positive spillover effect on infant survival status.

Relevance to Development Studies

Beside economic achievement, the level of development in a country is also reflected in the health status of its people. Several health indicators, including mortality rate in young children, have been used by the United Nation Development Programme (UNDP) as measurements of poverty. The literature suggests that the high numbers of Child Mortality Rate (CMR), Infant Mortality Rate (IMR), and Neonatal Mortality Rate (NMR) exist in the Less Developed Countries (LDCs). Indonesia, a middle income country in South East Asia has

been successful in reducing child mortality, but has not yet made enough progress in reducing infant and neonatal mortality. Situation analysis is needed to identify factors which may provide insights on how greater progress may be achieved. , Reduction of under-five mortality rate by two-thirds between 1990 and 2015 is a Millennium Development Goal (MDG). Indonesia has been on track in achieving the MDG target on under-five mortality. However, slower progress on infant mortality reduction shows that more attention should be given in order to improve the survival of younger children. Motivated by this situation, this study attempts to identify determinants of infant mortality in Indonesia between 1997 and 2012 using the 4th, 5th and 6th rounds of the Indonesia Demographic and Health Survey (IDHS) data. In addition, the study aims to identify externalities which may be generated by investments in mother's education, water and sanitation, and child vaccination by a household's neighbors. The conceptual framework is based on Mosley and Chen (1984). Logistic regressions are used to estimate the effect of a variety of factors on infant mortality.

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