Unmet Need for Birth Registration in Indonesia: Inequality Across Districts/Municipalities

Abstract (max 200 words)

Since 2019, the Indonesian government has enhanced public services related to birth registration to ensure that every birth is officially recorded. This effort has led to a significant increase in birth registration coverage, from 85.8% in 2017 to over 94% in 2023. However, despite this progress, inequalities in civil registration persist across regions in Indonesia, particularly at the district/municipality level.

This study investigates macro-level factors at the district/municipality and provincial levels that influence birth registration inequality across districts/municipalities in Indonesia. It employs multilevel analysis to explore variations in birth registration rates, accounting for the correlation between administrative areas within the same provincial-level structure. The research utilizes aggregate data from the Ministry of Home Affairs' e-database on birth registrations and data from Statistics Indonesia to construct and analyse macro-level predictors of inequality in birth registration. The findings emphasise the role of broader contextual factors as barriers or enablers of birth registration equity, providing valuable insights for policymakers aiming to achieve universal and inclusive civil registration.

Introduction

Birth registration is a fundamental right that grants individuals legal recognition by the state, ensuring their access to legal protection and public services. Ensuring that every birth is registered is vital for both individuals and the government, particularly in enhancing government planning and accountability in the provision of public services. Therefore, a well-functioning civil registration and vital statistics (CRVS) system is essential to record all vital events, including births, and provide the government with reliable data for informed planning and decision-making.

Since 2019, the Indonesian government has been actively working to improve the coverage and effectiveness of the country's civil registration system. Several regulations and programs have been introduced to accelerate progress, particularly through the implementation of the integrated Population Administration System (*Sistem Informasi Administrasi Kependudukan* – SIAK) [1][2]. These efforts have led to a notable increase in birth registration rates among children aged 0-5, rising from 85.8% in 2017 to 94.7% in 2023 [3][4]. Despite this significant progress, inequalities in birth registration rates persist across provinces and become more pronounced at the district/municipality level. Among Indonesia's 553 districts and municipalities, the highest birth registration rate for children aged 0-5 in early 2024 was 100%, while the lowest was just 25% [5] . Addressing these regional disparities is crucial to achieving universal and inclusive birth registration. This study aims to examine macro-level factors at

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[1] Regulation of Indonesia the Minister of Home Affairs Number 95 of 2019 concerning the Population Administration Information System.

[2] Indonesia Presidential Regulation Number 62 of 2019 on the National Strategy for Accelerating Population Administration for the Development of Vital Statistics

[3] Bappenas. (2021). *Kerangka Kerja dan Indikator Pemantauan dan Evaluasi: Strategi Nasional Percepatan Administrasi Kependudukan untuk Pengembangan Statistik Hayati*. Jakarta: Bappenas

[4] STRANAS, S. (2024). *Capaian Target Stranas AKPSH*. Stranas AKPSH.

[5] Affairs, M. o. H. (2024). *Data Kepemilikan Akta Kelahiran pada WNI usia 0-5 Tahun*. https://e-database.kemendagri.go.id/kemendagri/dataset/1185/tabel-data

both the district/municipality and provincial levels that serve as barriers or enablers to equitable birth registration across these administrative areas in Indonesia.

Method

This study utilizes a supply and demand framework to identify and analyze macro-level factors at both the district/municipality and provincial levels that explain variations in birth registration across these administrative areas. The study leverages aggregate data on birth registration rates from the Ministry of Home Affairs' e-database to construct the outcome of interest. Explanatory variables for the variation in birth registration rates across these areas will be derived from aggregate data provided by Statistics Indonesia (*Badan Pusat Statistik*), covering the same period of interest.

On the demand side, we are particularly interested in examining the effect of the total fertility rate (TFR). As the number of births increases, the demand for birth registration services also rises. Additionally, we will explore how the sociodemographic characteristics of subpopulations and geographical barriers impact the need for birth registration.

On the supply side, we examine the impact of access to health services, measured by the proportion of births occurring in health facilities and those assisted by skilled birth personnel. In Indonesia, health services play a crucial role in initially recording births and providing parents with the necessary documentation to register the birth at the civil registration office. Some provincial governments have implemented collaborative programs with health facilities to facilitate on-site birth registration, helping to address delays and distance-related challenges in the registration process. We will also investigate the role of village-level social protection programs related to birth registration in explaining variations in birth registration rates across the country. Additionally, given the centralization and integration of the Population

Administration System (SIAK), internet coverage and connectivity are critical factors in ensuring high birth registration rates in Indonesia.

<u>Statistical Analysis</u>

This study will employ multilevel mixed-effects models to estimate the impact of macro-level factors, accounting for autocorrelation between districts/municipalities within the same province. The use of multilevel models allows for the partitioning of variation in birth registration rates attributable to both district/municipality and provincial levels.

Expected Results

We anticipate that our findings will highlight and quantify the magnitude of barriers and enablers associated with birth registration rates across districts and municipalities in Indonesia. Specifically, we expect to observe a positive relationship between total fertility rates (TFR) and birth registration. These results will provide evidence of unmet birth registration needs in high-fertility areas, which are likely to be more disadvantaged in terms of sociodemographic development. We also expect that the impact of access to health facilities will vary across provinces, as reflected by the application of these variables as random effects at the provincial level. The findings will help identify priority areas for targeted government planning and population-level interventions aimed at improving universal and inclusive birth registration.