Karakteristik Cluster Kabupaten/Kota Berdasarkan Indikator Indeks Pembangunan Manusia dan Stunting di Indonesia Bagian Barat

Manik, Jihan Ramadhany Ginting

Abstrak

Stunting masih menjadi tantangan kesehatan masyarakat di Indonesia dengan prevalensi nasional sebesar 19,8% pada tahun 2024. Meskipun prevalensinya menurun, beban kasus masih terkonsentrasi di Pulau Sumatera dan Jawa yang menampung sebagian besar balita Indonesia. Kesenjangan karakteristik antarkabupaten/kota di kedua pulau tersebut sering kali tertutupi oleh rata-rata tingkat provinsi, sehingga intervensi yang diterapkan cenderung bersifat seragam dan kurang tepat sasaran. Penelitian ini bertujuan mengidentifikasi karakteristik wilayah berdasarkan indikator Indeks Pembangunan Manusia (IPM) dan determinan stunting, mendeskripsikan karakteristik setiap cluster, serta menyusun rekomendasi kebijakan berbasis karakteristik wilayah. Penelitian menggunakan desain studi ekologi dengan unit analisis 273 kabupaten/kota di Pulau Sumatera dan Jawa berdasarkan data SUSENAS dan Survei Status Gizi Indonesia (SSGI) Tahun 2024. Analisis dilakukan menggunakan metode K-Means Clustering terhadap empat indikator IPM dan enam determinan stunting, sedangkan prevalensi stunting digunakan sebagai variabel pembanding melalui uji ANOVA. Hasil penelitian mengidentifikasi empat cluster dengan karakteristik yang berbeda. Cluster 3 memiliki tingkat pembangunan manusia tertinggi dan prevalensi stunting terendah, sedangkan Cluster 4 memiliki prevalensi stunting tertinggi yang disertai tingkat kemiskinan lebih tinggi serta akses air minum dan sanitasi yang lebih rendah. Temuan penting menunjukkan bahwa Cluster 4 memiliki rasio puskesmas dan bidan yang relatif tinggi, namun tetap mencatat prevalensi stunting tertinggi, mengindikasikan bahwa intervensi layanan kesehatan saja belum cukup tanpa perbaikan determinan sosial dan lingkungan. Uji ANOVA menunjukkan perbedaan prevalensi stunting yang bermakna antarcluster (p<0,001). Penelitian ini menyimpulkan bahwa pendekatan kebijakan berbasis karakteristik wilayah diperlukan agar strategi percepatan penurunan stunting dapat disesuaikan dengan karakteristik masing-masing cluster sehingga menjadi lebih tepat sasaran, efektif, dan berkelanjutan. <hr /> Stunting remains a major public health challenge in Indonesia, with a national prevalence of 19.8% in 2024. Although the prevalence has declined, the absolute burden of cases remains concentrated in the islands of Sumatra and Java, which are home to the majority of Indonesia's under-five population. Disparities among regencies and municipalities are often masked by provincial averages, resulting in uniform interventions that may not adequately address local needs. This study aimed to identify regional typologies based on the Human Development Index (HDI) indicators and stunting determinants, describe the characteristics of each cluster, and develop policy recommendations tailored to regional characteristics. An ecological study design was employed using secondary data from 273 regencies and municipalities in Sumatra and Java obtained from the 2024 National Socioeconomic Survey (SUSENAS) and the 2024 Indonesian Nutrition Status Survey (SSGI). The K-Means Clustering method was applied to four HDI indicators and six stunting determinants, while stunting prevalence was used as a validation variable through analysis of variance (ANOVA). The analysis identified four distinct regional clusters with different characteristics. Cluster 3 exhibited the highest level of human

development and the lowest stunting prevalence, whereas Cluster 4 had the highest stunting prevalence, accompanied by higher poverty rates and lower access to improved drinking water and sanitation. A notable finding was that Cluster 4 had relatively high ratios of primary healthcare centers and midwives despite recording the highest stunting prevalence, indicating that healthcare interventions alone are insufficient without addressing broader social and environmental determinants. ANOVA confirmed significant differences in stunting prevalence among the clusters (p<0.001). This study concludes that a regional typology-based approach is essential for designing more targeted, effective, and sustainable stunting reduction policies that are tailored to the characteristics of each cluster.