

TIME AND INCIDENCE OF CATCH-UP GROWTH AMONG STUNTED CHILDREN

Kencana Sari¹⁾, Ratu Ayu Dewi Sartika²⁾, Endang L Achadi²⁾,
Atmarita³⁾, Yekti Widodo¹⁾, Sutanto Priyo Hastono²⁾,
Hartono Gunardi⁴⁾, Widjaja Lukito⁴⁾

¹⁾The National Research and Innovation Agency, Indonesia

²⁾Faculty of Public Health, University of Indonesia

³⁾Indonesian Nutrition Association

⁴⁾Faculty of Medicine, University of Indonesia

ABSTRACT

Background: Stunting is an important indicator of childhood well-being and social inequalities. Stunting is a type of child malnutrition with an estimated 161 million children stunted worldwide. To prevent the adverse effects of stunting in later life, stunted children shall catch-up growth at the right time. This study aimed to analyze the incidence and timing of catch-up growth in stunted and non-stunted children.

Subjects and Method: This was a longitudinal study conducted at Bogor, West Java. The data were obtained from monthly anthropometric measurements of children in Bogor's Longitudinal Study of Child Health and Development. All children aged 12-60 months (born in 2012-2014) were followed up every month to the age of 5 years (in 2017-2019). Stunting was defined if height for age Z-score (HAZ) < -2. Catch-up growth was measured at the later ages (in months) compared to the age of 12 months using three indicators (1) positive change in height age difference (HAD), (2) positive change in height for age Z-score (HAZ), (3) recovery from stunting. The data were analyzed by survival analysis.

Results: Catch-up growth occurred at the individual level in children regardless of the indicators used (HAD, HAZ, recovered from stunting). The incidence rates of catch-up growth were between 19.7 to 76.6 per 100 children per year. The median survival time of catch-up in stunted children was 36 months, 14 months, and 24 months, respectively, according to HAD, HAZ, and recovered from stunting. The most frequent catch-up growths were achieved at the ages of 13 (HAD), 14 (HAZ), and 24 months (recovered from stunting).

Conclusion: Focusing on early prevention and intervention before 24 months is important to prevent persistent stunting.

Keywords: catch-up growth, longitudinal, stunting, children.

Correspondence:

Kencana Sari. The National Research and Innovation Agency. Gedung BJ Habibie, Jl. MH Thamrin No.8 Jakarta, 10340, West Java. Email: kencana.sw@gmail.com. Mobile: 081315805506.