

Supply of doctors in Malaysia; projections until 2030

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ABSTRACT

Introduction: In view that human resources for health (HRH) is a main asset in healthcare, it is crucial to have an optimal number to ensure the aim towards universal health coverage is achieved. This study focuses on the supply projections of doctors in Malaysia until 2030 to assist policy makers identify future supply of doctors based on current production trends. **Methods:** The "System Dynamic" approach was used to project the supply of doctors in Malaysia until 2030 as this method is able to simulate the dynamic behaviour of a complex system including the delays and feedbacks structure in the system. The models analysed the number of doctors based on previous trends which was obtained from relevant stakeholders. The projected numbers are compared to the National target of 1 doctor to 400 population to be achieved by 2020 as set by the Malaysia Prime Minister in 2010, to determine when the supply will meet country's requirement and to identify possibility of undersupply or surplus. Subsequently, comparison with OECD countries is made. **Results:** It is projected that the supply of doctors by 2025 will meet the country's target of 1 to 400, thus total numbers of 85,737 doctors is needed including house-officers. Excluding house-officers, the target can only be achieved in 2028 where Malaysia will have 88,037 fully registered doctors. The projected density of doctors in Malaysia in 2016 is 13 per 10,000 population and up to 26 per 10,000 population in 2030, which are lower than OECD countries (42-43 per 10,000 population). **Discussion:** With estimated 4,500 new fully registered doctors annually, Malaysia will not be able to meet its set target of 1 doctor to 400 populations by 2020. Thus, a coordinated feedback mechanism is required to balance the country's doctor supply and need to fulfil country's labour market.

Med J Malaysia Vol 72 Supplement 1 August 2017:A168

The ability of health care providers to detect and act on malnourished Orang Asli children aged 2 or less: a clinical audit

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ABSTRACT

Introduction and Objectives: The majority of indigenous people [Orang Asli (OA)] live in poverty and suffer from malnutrition. Routine health growth assessments are essential in identifying children at risk of malnutrition. This study aimed to audit the ability of nurses in detecting and acting on malnourished OA children in primary health clinics of Perak state, Malaysia. **Methods:** A clinical audit was conducted in 2016. Consensus was obtained among stakeholders for audit criteria, forms and procedures. All weight-for-age growth chart of OA children aged 2 and less were selected for retrospective audit. Children who required special needs were excluded. Growth charts were examined against audit criteria. This included quality of growth plotting (chart not plotted, partially plotted or incorrectly plotted), presence of malnutrition and appropriateness of action taken (appropriate action, inappropriate action, no action) according to local standard operating policies. Ethical approval was obtained and eligible auditors were trained using simulated growth charts. **Results:** A total of 1329 growth chart of OA children were audited. 797 (60%) growth charts were plotted correctly, 527 (39.7%) were partially/incorrectly plotted, and 5 (0.3%) were not plotted. Overall, 40.0% of the growth chart were plotted poorly or completely not plotted. 550 children were found to have malnutrition and 71.5% of them received inappropriate action. Where growth charts were correctly plotted, 283 malnourished children were identified and 68.6% of them received inappropriate action. Where growth charts were partially/incorrectly plotted, 267 malnourished children were identified and 74.5% received inappropriate action. The malnutrition status of 260 (19.6%) children was not possible to determine due to partial or incomplete plotting. **Conclusion:** At least one-third of OA children aged < 2 years were malnourished and the vast majority received inappropriate care. The inability of nurses to perform critical monitor growth and to act on findings are of serious concern and require immediate attention.

Med J Malaysia Vol 72 Supplement 1 August 2017:A169