

Developing Population Health Research to Improve Outcomes: a health system perspective

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With the rapidly aging population and increasing burden of chronic diseases, there is growing pressure on healthcare systems to provide cost-effective and sustainable person-centre care to improve health outcomes. This has led to the need for health systems to effectively incorporate evidence-based findings to direct best practices and continuously improve population health initiatives. The SingHealth Regional Health System (RHS) has been driving the development of population health research in the SingHealth Duke-NUS Academic Medical Centre (AMC) through a cyclical process where science generates evidence leading to improvements in care, which is evaluated scientifically, leading to more evidence to be implemented in the health system to improve care. Such research aims to improve population health, experience of care, per capita cost and overall satisfaction of healthcare providers, measured using the Quadruple Aim. As population health research is still at its early stage in Singapore, SingHealth RHS has established the Population-based, Unified, Learning System for Enhanced and Sustainable Health (PULSES) Centre Grant (funded by the National Medical Research Council) in August 2017 to build centralized research capabilities and foster multidisciplinary collaborations in our AMC. Through the PULSES Centre Grant, the SingHealth RHS is tackling challenges in addressing the unmet research needs in population health, with developments in: - Developing a population health database for research and operations - Leveraging research panels to understand population needs - Harnessing implementation science for evidence-based service improvement - Building in robust programme evaluation framework to guide systematic data collection - Grooming a pool of population health researchers Moving forward, we plan to continue to work closely with academic partners in the AMC to strengthen research infrastructure and expertise (in particular in the areas of implementation science and programme evaluation) and to build strong and productive research partnerships nationally and globally.