

# Epilogue

Inspired by the need to understand how to improve population health management research and practice, we have conducted a thorough investigation on the structure-process-outcome aspects of the quality and efficiency of a continuum of care for chronic conditions. The use of an integrated theoretical perspective for population health problems enables us to transform broad ecological research on chronic disease, viewed from person-place-time dimensions of health disorders coupled with a person-centric emphasis for care management operations at the population level. This trans-disciplinary view on care management strategies has instigated the conceptualization and empirical investigation of the predisposing, enabling, and need-for-care factors that are relevant to the improvement of administrative functions and patient-centered care modalities. This timely and thorough investigation on population health management has generated important information to enhance the integrity of integrated care policy on multimorbidities and poly chronic conditions.

The book has three component parts: trends and strategies of population health management, evidence-based approaches to population health management, and future MHP research and challenges for improving and optimizing population health management. Each component is illustrated by specific chapters with detailed empirical evidences as follows:

## Part 1: Explore Trends and Strategies in PHM

PHM has evolved from an ecological health perspective cited in the population health literature to an integrated perspective with a population health (macro-) in combination with an individual health (micro-) view on the health of the population. Formally, PHM gears to the design and implementation of varying cost-containment strategies based on data-driven and empirically feasible policies, ranging from the prospective payment system (e.g., diagnostic-related grouping) to the value-based payment system (e.g., pay-for-performance). Evidence has shown that a single

cost-containment strategy is not going to optimize the productivity and efficiency of a health-care system. On the contrary, it is achieved through the adoption of multiple change strategies, coupled with the collaborative governance of multiple private and public entities, and the joint effort of researchers and practitioners for optimization of population health solutions. The best practices in targeting the high cost and high vulnerability of specific patient population groups for care management interventions are guided by the predictive analytics and data-based information gathered from multiple sources.

## **Part 2: Identify Evidence-Based Approaches to PHM**

Better management of population health programs requires precise and rigorous measurements or metrics. The identification of practical strategies for PHM could help improve care management and integration. Supplemented by the use of data analytics, predictive analytic software, and administrative and clinical decisions for performance improvement, hospitals and ambulatory care centers have collected and acquired necessary data to achieve optimal care and better outcomes. This phase of continuing investigation is very germane to the success of future PHM programming. However, little is known about the comparative effectiveness of varying clinical and administrative decision support systems available in enhancing quality and efficiency of hospital or health organizational performance in conducting PHM operations.

## **Part 3: Optimizing the Use of Health Information Technology in PHM Research**

The dynamic nature and integrated mechanisms are described and supplemented by the systematic review and meta-analysis results of empirical studies. The transitional phases of PHM integration will be better understood if scientific studies with a randomized design are executed in the real world. Furthermore, a longitudinal design of the study of integration mechanisms via the use of decision support systems and care management technologies will yield insightful and meaningful information to guide the transitions and change trajectories of the PHM industry.

The book has traced the evidence for improved PHM programming and offered a guide to improved health-care policy reforms, particularly relevant to the structural integrity and quality improvement of the future PHM industry. Strong lessons are gained from collaborative learning with international scholars who are dedicated to population health management research and improvement throughout the world.

In conclusion, we are humbled by the vast amount of knowledge that exists and is gained from exchange with scientists in multiple disciplines. It is clear that no one can solve the global health problems without the assistance of care management

technology and innovation. This book is only beginning to explore the possibility of establishing international collaboration to tackle the complexity of chronic disease etiologies and therapeutic mechanisms at the population level. The PHM programming can be reformulated via global health collaborative efforts as follows:

- Redesign care management approaches.
- Use experimental methods to design and implement intervention studies.
- Develop a systematic and tractable clinical case management strategy consisting of care needs assessment, care plan, care monitoring, and evaluation of outcomes.
- Perform comparative effectiveness analysis to support the value-added proposition in implementing and evaluating integrated chronic care management.
- Evaluate the efficacy or effectiveness of adopting decision support systems in improving care management and performance at the population level and enhancing self-care management at the patient level.
- Examine both provider-based and patient-based perspectives in quality improvement.

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