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## CONFERENCE ABSTRACT

# Understanding the morbidity burden of patients and populations can improve the integration of health care

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**Introduction / Background:** Worldwide interest in population based case-mix is increasing as populations age and health care needs rise. Simultaneously, new models of integrated care require a common language and information base to insure continuity and coordination of care.

Unlike episodic case mix methodologies, population based case mix is focused on the entire population, the entire experience within the health care system, and the entire patient. Since the 1970s, population based case mix has evolved from a basic assessment describing the morbidity of populations to a comprehensive tool including predictive modelling taking into consideration multi-morbid patients.

Population based case mix has been successfully applied across the globe by ministries of health, provincial health authorities, health plans, insurers, as well as researchers at universities and research organizations, to achieve numerous objectives, including:

- Characterizing the use of health care services.
- Comparing the illness burden as measured by case-mix with patient reported information.
- Focusing limited resources on patients who can most benefit from intervention as well as the clinicians who care for them.
- Assessing differences in access to care, continuity of care, and provision of comprehensive primary care,
- Establishing clinical baseline indicator data for improved provision of care protocols and integrated health service plans,
- Supporting morbidity based capitation systems and other payment methods
- Monitoring mental health status amongst specific populations
- Identifying and quantifying patterns of use of public services
- Assessing performance of primary care providers
- Detecting fraud and abuse within the provision of health care services.
- Predicting mortality

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- Controlling for morbidity in research studies

Through adaption to the local context including incorporation of local weights, recognition of local coding systems, and local practice patterns, the results have demonstrated the value of population based case mix.

**Results:** Examples of case-mix applications from around the world have demonstrated how a better understanding of the morbidity profile of patients and populations can improve the delivery of integrated health care.

**Conclusion:** Population based case mix has developed over the last three decades to become a critical component of health care systems facilitating clinical, financial, and managerial decision making. It continues to evolve to meet the needs of new models of delivery moving into the future.

**Limitations:** The common challenges faced include data quality, obtaining cost measures, incompatible data input streams as well as gaining clinician acceptance and decision-maker buy-in.

**Suggestions for future research:** Development efforts are currently underway to incorporate clinical indicators beyond diagnoses and pharmaceutical information. These include laboratory results as well as social, economic, and environmental determinants of health.

References:

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**Keywords:** multimorbidity; population-based case-mix; care management; performance assessment; resource allocation

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