## Adapting the chronic care model for management of type 2 diabetes for the primary care setting in Kuwait: a review of the evidence and practice

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#### **ABSTRACT**

### **Background:**

Diabetes is a global epidemic with more than 422 million affected. In the Middle East and North Africa (MENA), the prevalence rate is 10% and in Kuwait it is 15.8% with one third of Kuwaiti adults affected. Evidence shows that the chronic care model (CCM) has a large benefit on glycemic control and reduction of diabetes complications when implemented effectively.

#### **Methods:**

A literature review using PubMed and grey literature (conference abstracts available online) was conducted to find evidence around diabetes care and outcomes for the MENA region, with a focus on models of care for diabetes in primary care settings. The different models of care were compared to our local model to develop recommendations and potential solutions to improving diabetes care in our clinic.

#### **Results:**

Our usual model of care, which consists of clinic visits with a single nurse, doctor or pharmacist, generally had a higher rate of diabetes patients with uncontrolled diabetes and diabetes complications compared to the CCM for diabetes, as well as lower cost-effectiveness [3]. CCM incorporates six evidence-based components: self -management support, delivery system design, decision support, clinical information systems, organization of health care, community support. Barriers to implementing CCM include: weak delivery systems, limitations of data systems, challenges in patient-physician interactions, difficulty in accessing care, especially in distant areas, and lack of infrastructure (facilities and resources).

#### **Discussion:**

CCM should be the standard of care for the management of diabetes in primary care settings. We have made changes at the micro level in our clinic and are advocating at the macro level to bring CCM to our setting. We conducted a workshop raise awareness and discuss the benefits of CCM, and our team worked as local champions for CCM. Over time, we were able to assemble a multi-disciplinary team comprised of physicians, a podiatrist, a nutritionist, a diabetes health educator and qualified nurse. We have observed dramatic changes in diabetes outcomes and improved satisfaction from our patients. We lack the health information system and research infrastructure to provide further data on outcomes, but continue to work towards quality improvement in this area.

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