

Opportunities for the development of nurse-led services for the management of preventable illness & chronic disease in the UAE



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Abstract

The UAE has the unenviable status of having the second highest global incidence of diabetes and related chronic disease. The UAE also registers a very high rate of preventable illness & avoidable accidents. The associated burden of disease places a heavy strain on health service cost and service delivery requirements. Multiple strategies are needed to halt and reverse this trend within the UAE.

This presentation highlights global trends in nurse-led service along with recent developments of the UAE Nursing and Midwifery Council in developing a framework for advanced and specialty nursing practice.

Opportunities are highlighted whereby nurses within the AL Ghabria Health Service and wider UAE/GULF region could work within the newly developed scopes of advanced and specialty nursing practice to provide sustainable, effective and affordable nurse-led services providing primary care and community-based services focused on the prevention and enhanced management of avoidable illness, injuries, diabetes and associated chronic disease.

Learning Outcomes

Upon completion of this presentation, participants will be able to:

- **Define** chronic disease & **discuss** the current and projected burden of preventable illness, injury & chronic diseases
- **Discuss** the newly developed UAE Nursing and Midwifery framework for advanced and speciality practice
- **Highlight** global examples of nurse led services for the management of preventable illness, injuries & chronic diseases
- **Identify** opportunities for nurses to contribute to the prevention & management of avoidable illness, injury & chronic diseases through nurse led services within the UAE
- **Understand** the responsibilities & accountabilities of providing nurse led services **and explore** opportunities to partner with medical colleagues in designing new services

What is Chronic Disease?

Chronic disease has been defined as illness that is prolonged in duration, does not often resolve spontaneously, and is rarely cured completely. Chronic diseases are complex and varied in terms of their nature, how they are caused and the extent of their impact on the community. While some chronic diseases make large contributions to premature death, others contribute more to disability. Features common to most chronic diseases include:

- » complex causes with multiple factors leading to their onset
- » a long development period, for which there may be no symptoms
- » a prolonged course of illness, perhaps leading to other health complications
- » associated functional impairment or disability

Source: Australian Department of Health & Ageing

<http://www.health.gov.au/internet/main/publishing.nsf/content/chronicdiseases>

The Global Burden of Chronic Disease

The growing problem of chronic disease is well documented. The World Health Organisation (WHO) stated in 2008 that “Today, non-communicable diseases (NCDs), mainly cardiovascular diseases, cancers, chronic respiratory diseases and diabetes represent a major threat to human health and development. These four diseases are the world’s biggest killers, causing an estimated 35 million deaths each year - 60% of all deaths globally - with 80% in low- and middle-income countries”

Reference: World Health Organisation: Foreword to the 2008–2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases. Switzerland: World Health Organisation; 2008.

A few numbers

- Caring for the chronically ill consumes 75% of a nation's health care resources

Source: Bush, H. (2012) Tackling the High Cost of Chronic Disease. *Hospitals & Health Networks*; Oct 2012; 86, 10, P 34

- Noncommunicable diseases (NCDs) are the leading causes of death globally, killing more people each year than all other causes combined

Source: WHO (2010) Global Status Report of Non-Communicable Diseases

- Nursing is the largest single health profession

Source: Health Workforce Australia (2013). Special Report: Nurses in Focus. www.hwa.gov.au/

Chronic Disease & Disability is Long-term & Costly



‘Chronic illness is a long journey during which care and support needs to be designed to best support and optimise a full life’

Reference: Hajat et al. (2012) A Profile and Approach to Chronic Disease in Abu Dhabi. 8:18 Pages 1-12

<http://www.globalizationandhealth.com/>

Burden of Disease in Abu Dhabi

- Circulatory system disease = Top cause of death for both UAE Nationals & Expatriates
- High burden of disease from cancer, cardiovascular disease and diabetes, high mean BMI and high rates of smoking among males
- Public Health priorities for the Health Authority Abu Dhabi in order of priority:
 - » 1. CVD prevention & management
 - » 2. Road Safety
 - » 3. Tobacco Control
 - » 4. Cancer Control
 - » 5. Mental Health
 - » 6. Mother, Infant and school health
 - » 7. Musculo-skeletal health
 - » 8. Occupational & Environmental Health
 - » 9. Infectious Disease
 - » 10. Oral Health

The NATIONAL: Gulf News 4 Jan 2013

- Heart disease is the leading cause of death in the UAE and affects many patients in their mid-40s, i.e. between 10 to 15 years earlier than is most common in Europe
- In 2011, diseases of the circulatory system were the biggest killer in Emirate of Abu Dhabi alone, resulting in 1,089 deaths
- The average age of heart disease patients in the US and the UK is between 55 and 60; in the UAE it is between 40 and 45, with doctors often seeing patients as young as 20
- Junk food is killing us. It's not drugs or alcohol, nor cigarettes or shisha. It is food!! Highly processed junk food is among the greatest threats to public health in the UAE.



Read more: <http://www.thenational.ae/news/uae-news/health/obese-uae-children-at-risk-of-early-heart-disease#ixzz2KPYXnHk>

Read more: <http://www.thenational.ae/news/uae-news/health/new-campaign-battles-no-1-killer-in-uae#ixzz2KPXq3dor>

Preventable Death/Disability- UAE Accidental Injury

- Car crashes are the biggest child killer in the UAE
- Abu Dhabi UAE road deaths are reported as twice the UAE average. Causal factors include:
 - » Poor compliance in use of child safety seats
 - » Excessive speed
 - » Estimates that more than 50% of youth shun seat belts
 - » Irregular car maintenance, for example, changing brake fluid
- Relative to the number of vehicles on the road, UAE is reported to have six times more deaths from road traffic accidents per year than the USA & Europe
- High level of construction & industrial accidents

Source: Annual statistical report, United Arab Emirates, Ministry of Health

UAE Paediatric Concerns

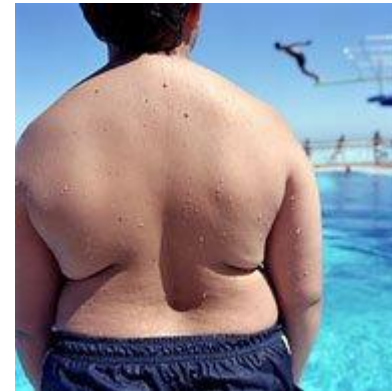
- Traffic accidents are the leading cause of infant mortality in the UAE and account for 63 per cent of all child deaths
 - » Subsequent increased need for rehab services
- Prevalence of pervasive developmental disorders in preschool children in the UAE (including autism) appear comparable to western countries, however, earlier detection and intervention could enhance UAE outcomes
- Significant levels of Attention Deficit Hyperactivity Syndrome ADHD
 - » Identified need for child visitation and monitoring re developmental delay & behavioural issues
- Prevalence of dental caries is high and correlates with high levels of paediatric diabetes including type 2 diabetes in young children
 - » Significant need for increased parent education programs

Source: Dubai Health Authority (DHA) Abu Dhabi health Authority (HAAD)

Childhood Obesity in Abu Dhabi

A recent research report within the Emirate of Abu Dhabi found:

- All students, nationals and non-nationals found a crude prevalence of 7.6% underweight, 58.9% normal weight, 14.7% overweight and 18.9% obesity
- Average child's BMI is above 50th percentile as early as age 7 or 8 years
- Higher BMI is associated with a higher BP, indicative of the adverse effects of childhood obesity
- Statistically higher obesity rates among UAE children than USA counterparts
- Prevalence is higher when parents have a high BMI



Reference: Al Junaibi, A., et al (2013) Prevalence and potential determinants of obesity among school children and adolescents in Abu Dhabi, United Arab Emirates. International Journal of Obesity, Vol 37, pp 68–74

Predicted trends: What of the future?



By 2020, an estimated 32 % of the adult population (age 20-79), including both UAE nationals & expatriates, may have diabetes or pre diabetes



Medical costs attributable to diabetes and pre diabetes in the UAE are forecast to increase to perhaps \$1.04 billion (AED 3.82 billion) by 2020, representing a 58% increase from an estimated \$657 million (AED 2.41 billion) in 2010

Source: United Health Group (2010) Diabetes in the United Arab Emirates: Crisis or Opportunity? www.unitedhealthgroup.com/

Creating a better future

☹ No ☹



☺ Yes ☺



How can nurses help?



What kind of services can nurses provide to make a difference?

New and Emerging Models of Nurse-Led Primary Health Care

- Globally, the contributions of nurses & midwives form the backbone of primary health care services
- Countries are increasingly looking to nurses, midwives and allied health professionals to provide prevention and disease management services in response to the burgeoning burden of non-communicable & chronic disease worldwide
- Better utilization of the nursing & midwifery workforce is a strategy being used by governments to strengthen health care systems and capacity
- A review of international case studies highlights the way in which nurses & midwives have taken up the challenge of leadership, sometimes with strong government & governance support and sometimes with little or no support

Advanced Nursing Roles – What do Nurses Do?

Advanced practice involves a broad range of roles within the legislated scope of practice & accountability frameworks of the specific nation/health system. Roles include but are not limited to:

- Patient counselling and health education
- Physiological and psychological assessments
- Screen patients for disease risk factors & early signs of illness
- Order diagnostic tests
- Prescribe & deliver treatment services
- Admit or discharge patients from their caseload and refer patients to other health care providers
- Education, training and service improvement
- Research & evaluation
- Work in partnership with medical specialists & multi-disciplinary teams

Source: Delamair, M. and G. Lafortune (2010), "Nurses in Advanced Roles: A Description and Evaluation of Experiences in 12 Developed Countries", *OECD Health Working Papers*, No. 54, OECD Publishing. <http://dx.doi.org/10.1787/5kmbrcfms5g7-en>

Some global case studies (a small sample)

- **Thailand:** Major project training nurses to work in their own communities
- **Tajikistan:** Introducing family health nursing within national health reforms
- **Slovenia:** A multidisciplinary role model of PHC
- **USA:** Drop-in PHC clinics boost child immunization
- **Kosovo:** PHC-orientated professional support in a post-conflict setting
- **USA:** Encouraging active living and health living nurse-led PHC clinics
- **Saudi Arabia:** A nation-wide whole-of-health workforce focus on health promotion/PHC
- **Samoa:** Community nursing models
- **Rwanda:** Training for the future project – remodelling health professional training
- **Oman:** Strong PHC focus to bring long-term population health improvement. Overall staffing involves 1,400 nurses
- **Mexico:** University/nursing faculty-led PHC projects in poor urban communities
- **Lebanon:** Educating student nurses through community participation
- **Lebanon:** Scaling up community nursing to improve children's health
- **Denmark:** Nurses services improving the health of older people reduces hospital costs

Source: Chiarella, Mary (2008) Discussion paper: New & Emerging Models of Nurse-led Primary Healthcare. Australian Government, Health & Hospitals Reform Commission.

Nurse-led clinics

‘A clinic where the nurse has his or her own patient caseload. This involves an increase in the autonomy of the nursing role, with the ability to admit and discharge patients from the clinic and/or to refer onto more appropriate healthcare colleagues.’

[Richard Hatchett, Nurse-led Clinics: Practice Issues. London: Routledge.](#)

‘A broad definition of a nurse-led clinic defines these clinics based on what nursing activities are performed at the site. Nurses within a nurse-led clinic assume their own patient case-loads, provide an educative role to patients to promote health, provide psychological support, monitor the patient's condition and perform nursing interventions. [Advanced practice registered nurses](#), usually [nurse practitioners](#), may have expanded roles within these clinics, depending on the scope of practice defined by their [state](#), [provincial](#) or [territorial](#) government’

http://en.wikipedia.org/wiki/Nurse-led_clinic

Website about Nurse-led Clinics <http://www.nurseledclinics.com/>

Rationale for Nurse-led Services & Advanced Practice Roles

- The growing burden of chronic disease and patient demand has significantly increased general practice and medical speciality workloads
- Australian & international evidence tells us that effective chronic disease prevention & management requires effective:
 - » **Systems:** chronic disease registers, patient follow-up, recall & review mechanisms and patient information systems
 - » **Education & support:** Patient information & education including information regarding prevention & self-management
 - » **Community linkages:** Connections to community resources & supports
 - » **Effective team work:** Effective links between medical specialists and all members of the health care team
- Integrated collaborative relieves medical practitioner workload, increases services to patients and improves patient outcomes
- Some early studies show reduced hospital presentations when general practitioners include nurse-led services within their practice

Emerging Evidence

Nurses and Doctors Equally Competent for Simple Ailments

Yael Waknine

Mar 21, 2013

- Trained nurses and general practitioners (GPs) are equally competent in providing primary care for common health issues, according to a Spanish study [published online](#) March 21 in the *Journal of Advanced Nursing*.
- In a trial involving 1461 adult patients seen for same-day appointments at 38 practices, Mireia Fàbregas, MD, from the Institut Català de la Salut, in Barcelona, Spain, and colleagues found that nurses successfully resolved 86.3% (95% confidence interval [CI], 83.6% - 88.7%) of cases randomly assigned to their care. The rate was similar to that achieved by GPs (odds ratio [OR], 1.10; 95% CI, 0.84 - 1.46) after adjustment for individual patient variables.

Accountability

Nurses working within a speciality or advanced scope of practice adhere to clear codes of practice and accountabilities. These include:

- Registration and licensure within specified scopes of practice
- Working in partnership with medical specialists and other members of the health care team
- Continuing to learn and engage in regular CPD
- Clear record keeping and reporting
- Engagement in peer review
- Engagement in clinical audit
- Reflection on practice
- Research & evaluation of patient satisfaction & outcomes



A Model for Nursing Specialization in the UAE

- UAE is now preparing BN qualified graduate entry nurses
- The first Masters in Nursing Program is available at RAKMHSU
- The UAE Nursing & Midwifery Council Scientific Committee on Practice is currently developing a Nursing Specialization Framework for the UAE
- The developing framework includes a pathway from General Registered Nurse (GRN) to Specialist Registered Nurse (SRN) then Advanced Practice Registered Nurse (APRN) roles

Specialization refers to “the acquisition of a level of knowledge and skill in a particular area of nursing/patient population which is greater than that acquired during the course of basic nursing education. Specialization requires the nurse to have advanced education and expertise in that area of nursing” [ICN, 2009]

New Opportunities for UAE Nurses



The UAE is actively progressing the development of programs for UAE nurses to upgrade to BN status and progress to specialty & advanced practice roles

The next five years will see significant further developments in nursing practice including aspirations to develop advanced roles & UAE-based PhD programs in nursing

Nurses have a key role in building a healthier UAE



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