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# Evolving National Strategy Driving Nursing Informatics in New Zealand

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**Abstract.** An update to the New Zealand Health Strategy identifying direction and priorities for health services is underway. Three specific areas have implications for nursing informatics and link to education and practice: best use of technology and information, fostering and spreading innovation and quality improvements, and building leaders and capability for the future. An emphasis on prevention and wellness means nursing needs to focus on health promotion and the role of consumers is changing with access to their on-line information a major focus. As the modes of delivery for services such as telehealth and telenursing changes, nurses are increasingly working independently and utilizing information and communication technologies to collaborate with the health team. New Zealand, and other countries, need strong nursing leadership to sustain the nursing voice in policy and planning and ensure nurses develop the required informatics skills.

**Keywords.** public policy; health strategy, nursing informatics, consumer engagement, nursing education

## 1. Introduction

The New Zealand Health Strategy provides the direction for the government's action on health by identifying the priority areas and aims to ensure that health services produce the largest benefits for the population [1]. The current strategy was released in 2000: however, since then financial constraints have increased, technologies have advanced, there is an increasing aging population, more focus on the impacts of health on the social sector, and these factors are drivers for the health sector demands for a clearer sense of direction and priorities. It is timely that a review and update of the national health strategy for New Zealand is taking place in order to set the vision and road map for the health sector for the future.

The Strategy development has been influenced by two external reviews. The first a "health system funding" review to promote a high quality sustainable funding model across social sectors. The second a "health system capability and capacity" review to ensure the health and disability sector can be adaptable and responsive [2]. These together aim to 'future-proof' the updated Health Strategy. It is encouraging to see a refocus of the Strategy which provides an impetus for further development and

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emphasis on the role nursing informatics plays in supporting healthcare in New Zealand.

## **2. New Zealand as context**

New Zealand is a small long country made up of three main islands. With a population of nearly 4.6 million and a publically funded health service, there is the constant issue of obtaining enough funding through taxation to meet individual's health needs [3]. New Zealand spends 10% of its gross domestic product (GDP) on health, compared to the United States 16.9%, Netherlands 11.8%, France 11.6% and Germany 11.3% [4].

Public health services are provided by twenty District Health Boards (DHB). Each DHB receives funding from Government, through the Ministry of Health, according to the nature of the district, considering size, rural/urban mix, and their specific population. A limited number of the DHBs also provide tertiary/quaternary services. Each DHB has responsibility to plan, manage, provide and purchase health services for their district. This includes primary care, secondary/tertiary hospital services, public health services, aged care services, and community services provided by other non-government health providers [5].

## **3. Developing a Health Strategy**

The process of developing the new Health Strategy involved many stakeholders and wide consultation identifying issues that an updated Health Strategy could ideally address. Feedback from stakeholders suggested that the New Zealand health system should aim to improve its performance by addressing health outcomes, rather than focus on activity performance measurements. Additionally, the division of the country into DHBs was thought to hinder collaboration and changes to service delivery, with arbitrary splits between districts being a barrier to change. Rather, a long-term view of a consumer-centred service with minimal fragmentation and duplication was desired. The working vision for the new Health Strategy proposed “a 21st century health and disability system that operates as one, focuses of wellbeing and prevention, and is people centered” aiming to support all New Zealanders to “live well, stay well and get well” [2].

The challenges identified to be addressed to develop this contemporary Health Strategy included:

- Changing demographics – people are living longer.
- Burden of disease – some people living longer are in poor health and with multiple long-term conditions/co-morbidities.
- Changing technology and drugs - with potentially huge benefits, but also with significant costs.
- Consumer expectations - more is expected from health services.
- Continuing fiscal constraint – not just in New Zealand but around the world.
- Continuing disparities - persistent differences in access and health outcomes for minority populations.
- A push for a new way of working and delivering health services.

Underpinning the above were the key priorities of prevention and wellness, strengthened integration of services, support for innovation, better collaboration, improved ways services are delivered especially to reach our most vulnerable, giving every child a healthy start, and ensuring information and services are more accessible. This requires strong leadership, capability for change and enhanced quality and performance.

#### **4. The Health Strategy**

The Health Strategy is nearing publication now, and three specific areas are emerging impacting nursing informatics: best use of technology and information, fostering and spreading innovation and quality improvements, and building leaders and capability for the future. Best use of technology and information provides a focus on the new eHealth and information technology (IT) solutions that are being implemented to support improvements in the health of the New Zealand population. The National Health IT Board is responsible for ensuring that the health information and communications technology aspects of the Health Strategy are implemented. The New Zealand IT and eHealth environment is evolving from a fragmented environment which creates infrastructure platforms to enabling sharing of information from disparate systems, to a focus now on having a stable, standardized information and decision support platform to allow integration across the sector. Strong clinical leadership and consumer input into systems design is supporting the enhancements in the quality and timeliness of information and delivering sustainable productivity improvements. The focus is now on co-design by clinicians and consumers to drive clinical productivity, and extending consumers' access to digital services online.

#### **5. Implications for nursing**

The above changes that are signaled by the review of the national Health Strategy for New Zealand have important implications for nursing, specifically for education and practice.

##### *5.1 Prevention and wellness*

The emphasis on prevention and wellness promotes a move towards decreasing the reliance on secondary care services and increasing health promotion, therefore reducing the disease burden on the health care system. This shift will need to be reflected in undergraduate and postgraduate nursing education with emphasize on nursing practice that utilizes health promotion and education to support healthy lifestyles at every opportunity for individuals, families, and communities.

Accessibility to information and software to support consumers in illness prevention and to promote healthy lifestyles is increasing. For example, there are many health and fitness related smart phone applications (apps) and with 64% of New Zealanders aged between 15 and 65 owning a smartphone, health promotional support is easily accessible [6]. A more recent emerging trend in New Zealand, is the use of wearable activity tracking devices (e.g. Fitbit). These wearable devices can be used

alone, on-line or via a phone app. The challenge for nurses will be how to work in partnership with consumers for realistic goal setting, biometric monitoring and encouraging ongoing progress towards healthy living.

### *5.2 Changing role of consumers*

Further participation of consumers is being encouraged through on-line access to their health information. In New Zealand this is being lead through primary health settings, where general practice is being encouraged to share part of the Electronic Health Record (EHR) through a 'patient portal', so consumers can see their medications, laboratory results and the plan for their care [7]. With 77% of households already having internet access in 2013, and this predicted to rise, the use of patient portals will increase [3].

A further example is the transfer to an on-line cloud based record for the well child health record used by Plunket, which was traditionally a paper-based record in a book format given to parents. Plunket is the predominant national well-child health provider in New Zealand seeing 90% of newborns, approximately 60,000 new babies every year [8]. Plunket is in the process of rolling out their cloud-based EHR application which will allow nurses using tablets to access consumer's notes, and families also having access to their children's health information. As Plunket provide well-child care from when a baby is two weeks old and lasting until they are four, this provides a longitudinal health record. These changes mean nurses will need to have the skills to use different technologies, and also incorporate the use of ICT into their care, both in clinics (such as general practice), and in the home (Plunket).

### *5.3 Alternative modes of service delivery*

Integration of services and improved and alternative modes of service delivery will bring new roles for nurses. In New Zealand that is likely to include a requirement for more Nurse Practitioners and advanced nursing practice roles [9]. Nurses are increasingly working more independently and using ICT to collaborate with other members of the health team for care provision [10,11].

Telehealth, as a mode of service delivery will increase as a means of improving access to health care across the country, especially in remote and rural areas [12] as well as large urban centers, where traffic issues impede movement [13]. Nurses in New Zealand are already well-placed and have proven themselves capable of taking key roles in telehealth and this is likely to increase [11].

### *5.4 Leadership*

A key requirement that has been identified both within the profession and at the Government level is the need for strong nursing leadership. Within nursing informatics in New Zealand there are nurses involved in a number of important national committees [14], but this is an area that needs further attention to ensure succession planning and therefore a sustained nursing voice at the level of policy and planning. Leadership skills can be developed through experience, postgraduate education, and also through opportunity, by promoting a culture of supporting up and coming young leaders [15]. Future nursing leaders are needed to lead and promote the use of ICT [16].

## 6. Conclusion

It is relevant for all nurses to consider their national health strategies and the implications for nursing informatics. With limited funding and an ageing population NZ needs to have a 21st century health and disability system that operates as one, with a focus on wellbeing and illness prevention that is consumer centered and the publication of the new NZ Health Strategy, in 2016, will guide this. The skills and resources of the nursing profession, and nursing informaticians in particular, are a powerful toolset to leverage to support all New Zealanders to “live well, stay well, get well”.

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