

Nurses at the forefront of innovation

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Background: This paper is based on a presentation given by the author at the 23rd Quadrennial ICN Congress and 7th International Regulation Congress in Taipei in May 2005.

Aim: Nurses worldwide are engaged in innovative practice on a daily basis. In most health systems across the world, nurses provide up to 80% of primary health care and are therefore well positioned to provide critically needed innovative solutions to many global health challenges. The aim of this paper is to increase awareness of the importance and value of innovations in nursing; provide an improved understanding of the contribution nurses make to innovation in health care; and increase understanding of the importance of creating environments that inspire innovation and help shape practice in new and improved ways.

Design: This paper explores the concept of innovation, the inherent set of characteristics that need to be present in order for innovations to succeed, and the barriers that impede innovation from occurring.

Conclusion: There are numerous examples of successful innovations worldwide that are developed and implemented by nurses, some of which are described in this paper. The paper concludes that organizations need to have a support climate that encourages creativity and innovation to occur.

Keywords: Innovation, Innovative Practice, Nursing Innovations, International Council of Nurses

Introduction

This paper is based on a presentation given by the author at the 23rd Quadrennial ICN Congress and 7th International Regulation Congress in Taipei in May 2005.

Innovation is not a new concept to the nursing profession. Nurses worldwide are engaged in innovative activities on a daily basis; activities motivated by the need to improve care outcomes and reduce costs to the health system. Many of these developments by nurses have resulted in significant improvements in the health of patients, populations and health systems. In most health systems, nurses are the main professional component of 'front line' staff providing up to 80% of primary health care. As such, they are critically positioned to provide the creative and innovative solutions for current and future global health challenges –

challenges such as ageing populations, HIV/AIDS, tuberculosis, malaria, an increase in non-communicable diseases, poverty, inadequate resources and workforce shortages. The need for innovative solutions has never been greater as health care environments globally struggle to provide equitable, safe and effective health services, while at the same time contain costs.

Background

The Concise Oxford Dictionary (eighth edition) defines 'innovate' as to bring in new methods or ideas; or to make changes. Similarly, academic literature throughout the 1960s, 1970s and 1980s establish that innovation inherently involves a new idea of some description (Thompson 1965; Rogers & Kim 1985). Downs & Mohr (1976) more specifically define innovation as 'something different for each organization into which it is introduced'. Jacques & Ryan (1978), on the other hand, define innovation as synonymous with creativity while Merritt (1985) and Deutsch (1985) both consider that innovation involves substantive but not necessary revolutionary changes.

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More recent interpretations of the concept of innovation expand on these definitions and describe innovation as being the conception, early adoption and implementation of significant new services, ideas or ways of doing things as government policy in order to improve or reform services, ideas and ways of doing things (Glor 1997). Blohowiak as cited in Brodrick (2001) considers that innovativeness is the application of creative, new ideas and the implementation of inventions.

This paper investigates the principles and characteristics of innovators, and nurse innovators, barriers to innovation occurring, outlines and describes examples of nursing innovations across a range of settings, and discusses key messages and lessons for the way forward.

Principles of innovation

A summary of literature regarding the general principles of innovation reveal that in order for innovation to occur, processes and mechanisms need to exist in organizations for encouraging creativity, and thus the opportunity for creativity needs to exist and therefore the opportunity to innovate (Drucker 1986; Blohowiak 1992; Radka 2002). Purposeful innovation therefore begins with an analysis of opportunities. It begins with the sources of innovation opportunities, and in different areas different sources will have different importance at different times. Leadership is a critical factor in fostering innovation. A successful innovation always aims at leadership – all strategies aimed at exploiting an innovation must achieve innovation within a given environment (Drucker 1986). Effective innovators start small and in order to be successful, an innovation needs to be simple and focused (Drucker 1986; Radka 2002).

It is also worth noting that technologies and methods do not necessarily have to be new to be innovative but that they are new to the organization (Hargadon & Sutton 2000).

Characteristics of innovators

Hargadon & Sutton (2000) consider that the best innovators systematically use old ideas as the raw materials for one new idea after another in a 'knowledge brokering cycle'. This knowledge brokering cycle has several components involving: (1) capturing good ideas by constantly searching for promising ideas and using old ideas as primary material; (2) that ideas need to be kept alive and active by spreading information and communicating with others; (3) that successful innovators imagine new ways old ideas can be used; and (4) that innovators put those concepts, which are promising, to the test.

Drucker (1986) simply considers that successful innovators are not risk takers but that they are opportunity focused. They define the risks they have to take and minimize them as much as possible.

Nurse innovators share a particular set of characteristics and to summarize these, Farella (2001) quotes Nicholas Webb, an inventor and recognized expert in medical interventions, as stating simply that 'nurses are among the cleverest inventors of all . . . behind their efforts is always a way to better care for their patients'.

An analysis of innovations led by nurses tends to show that nursing innovators share a common set of characteristics including a high level of tenacity and determination. They are self-confident, conscientious and ambitious and have a strong desire to acquire recognized qualifications. They are motivated to learn and demonstrate perseverance and initiative. They also demonstrate a willingness to take risks and adopt new methods or practices that are not widely used at the time of adoption.

The USA example of Clinical Nurse Specialist (CNS) Entrepreneurs well demonstrates those characteristics necessary for innovation to occur. CNS are entrepreneurs in the private sector who create a product or service and market it to other businesses. Entrepreneurs are innovators who use their creativity to develop a new idea, improve a service or delivery method, or develop new ways to use existing products. CNS entrepreneurs take hands on responsibility for creating innovations. Hospitals embracing entrepreneurship find themselves on the cutting edge of patient care with improved clinical and fiscal outcomes. Examples of nursing innovations, including those developed by CNS, are outlined in a further section of this paper.

Barriers to innovation

Even if the principles of innovation outlined above are adhered to, this does not necessarily equal successful innovation. There are many barriers that can impede innovation from occurring.

In 2003, Strategos (the world's leading group of strategy consultants) undertook a survey of over 500 executives across many industries. The top five barriers to effective innovation cited are shown in Table 1.

A narrow or short-term focus on operation matters was therefore considered the greatest barrier to innovation occurring ren-

Table 1 Top five barriers to innovation

<i>Barrier</i>	<i>Percentage (%)</i>
Short-term focus/focus on operations	63
Lack of time, resources or staff	53
Lack of systematic innovation process	33
High leadership turnover	31
Management incentives not structured to reward innovation	31

Source: Strategos 2003.

dering opportunity for innovation to occur virtually non-existent. Lack of structured processes in order for innovation to occur, and a shortage of resources were also seen as significant barriers to innovation occurring.

There is consensus in the literature that leadership is a critical ingredient to ensuring the occurrence of innovation (Hopper & Rexer 2002; Hamson 2004), and high leadership turnover was identified in the Strategos survey as a further barrier to innovation occurring. Those with leadership authority are not in place long enough to assure that changes and innovations become embedded into an organizations standard practices.

A factor that hinders innovation not identified in the Strategos survey, but which is a common theme in the literature is perception and behaviour. Hamson (2004) considers that 'behavioural rivers run deep' and that '... the channels, patterns and paths established as we perfect ways of dealing with challenges or acquire skill at applying knowledge and technique to produce predictable results take on a life of their own that resist change as much as many rivers bore down the same course for many generations'. Similarly, the US General Accounting Office (2005) describes the fact that many of the problems associated with change and innovation relate to poor communication and that generally people are reluctant to try new things if they are not able to get 'good' information from a trustworthy source.

Examples of nursing innovations

There are many examples of nursing innovation occurring throughout history, and across the world, which have succeeded and surpassed some of the barriers outlined above. The examples outlined in this paper are a snapshot of the many thousands of innovations occurring.

Nursing innovations described can be grouped in the following categories:

- historical examples;
- research;
- clinical practice;
- business;
- education;
- technology;
- public health; and
- policy.

Historical examples

New Zealand Native Health Nursing 1911

The New Zealand Native Health Nursing Scheme was established in 1911 in response to actual, or threats of, outbreaks of infectious diseases (such as typhoid, cholera, tuberculosis and influenza) among Maori people. This represented a new direction for nurs-

ing in New Zealand as a new nursing role was established with greater autonomy and accountability. The role raised the profile of all nurses and increased the status of the nursing profession in New Zealand.

While obedience, duty and virtue were the qualities most highly valued in women of that era, courage, strength, organizational ability and commitment were the qualities required of a native health nurse. Clearly the characteristics of these nursing innovators, practising nearly 100 years ago, are closely aligned with those described of modern nursing innovators.

Native health nurses lived and worked closely with Maori communities and had a strong disease prevention/health promotion focus. The geographical isolation of the role provided the challenge of minimal support but also the opportunity for independence and relative autonomy. They adapted their practice in order to be culturally acceptable to Maori and extended their scope of practice to include responsibilities not previously expected of a nurse.

Amelia Bagley, one of the native health nurses said of her role:

by working with [Maori people] and getting them to work with her on right lines the nurse is enabled to realize more the Maori's [sic] point of view which is not without reason – and also to understand the difficulties which come in the way of their doing things 'Pakeha fashion' as we would like (Bagley 1914, p. 159).

In addition, she considered that

... the position the nurse is placed in, to act as doctor, to diagnose, treat, prescribe, and dispense, makes one sharpen every faculty to do the very best possible. Here is a life as it were, dependent to a great extent, upon you, to do all that is within your medical knowledge and power, to give relief. I like the work and read more medical books now than ever before, in my nursing career. It makes one grasp the use of drugs, and to learn which drugs (though many are advocated by the pharmacopoeia) are best' (Bagley 1914).

Of course many barriers would have existed potentially impeding the success of such innovative practice. A lack of a systematic innovation process, resource issues and possible resistance by Maori people to change are all barriers that would have existed and have identified as some of the key barriers to innovation occurring (Strategos 2003). Despite these barriers the initiative was successful, which was largely due to the inherent leadership characteristics demonstrated by those nurses involved.

Nursing innovation in the field of research

The work of Dr. Linda Aiken, Professor of Sociology, and Director of the Center for Health Outcomes and Policy Research at the Uni-

versity of Pennsylvania, Philadelphia is at the forefront of innovation in nursing research. Her accomplishments are many and include applying objective performance measures to establish the evidence base underlying the success of the Magnet hospital movement. Magnet hospitals have clearly demonstrated that a number of factors underlying the nursing shortage, especially those relating to staff retention, can be successfully overcome. Subsequent research into Magnet hospitals demonstrates their effectiveness at improving both patient and nurse outcomes (e.g. reduced needle stick injuries). The magnet concept is now being applied worldwide.

Dr. Aiken has been involved in developing and testing measures and research methods to document the significant contributions of nurses to quality of care and patient outcomes in hospitals. She also created survey techniques to collect standardized information on organizational features and cultures across large numbers of hospitals. This information provided the basis for understanding how certain characteristics of hospitals correlate with practices that can either protect or imperil patients.

Her achievements include pioneering an international hospital outcomes study that developed a new perspective dispelling the myth that nursing shortages in the USA are a uniquely American phenomena. In fact, the study found that nursing shortages and their causes were similar across hospitals in six countries.

Clinical practice

Tongan health society, New Zealand

The Tongan Health Society set up a diabetes clinic in Auckland, New Zealand, early in 2004. The purpose of the clinic is to provide culturally appropriate services to Tongan people where patients are able to speak their own language during consultations, listen to Tongan music, and relax in an environment where their culture is acknowledged and taken into account (Ministry of Health 2005).

Diabetes care is integrated at the clinic and therefore reduces the need for patients to travel to a range of health care specialists as podiatrists and other specialists are available at the clinic. A range of health promoting services is also provided such as cooking demonstrations and education classes. This clearly demonstrates one of the fundamental principles of innovation, that 'innovation' does not necessarily involve new ideas or new technologies but is a new concept for a particular organization (Hargadon & Sutton 2000). It succeeds also because it is simple and focused (Drucker 1986; Radka 2002).

Mobile surgical services, New Zealand

Registered nurse, Maryanne Sweeney, involved in the establishment of Mobile Surgical Services (New Zealand) has a background in Perioperative Nursing and is very committed to

nursing professionally. Maryanne researched the development of a mobile cataract service in 1996/1997 which raised her awareness of the bonus of sharing equipment via a vehicle and the benefits behind taking the service to the people instead of the people having to travel to 'bricks and mortar'.

Maryanne had had experience of being involved in the design and building development of operating theatres and other areas within hospitals on several occasions in the past. Then commenced her involvement in the development of mobile surgical services with a team that included truck engineers, engineering consultants, electrical and air conditioning engineers to establish whether such a vehicle could be developed. This was a very challenging project, which included considerations such as ensuring a roadworthy vehicle that met New Zealand's Land Transport requirements as well as being a world class operating theatre and telepresence suite.

The proposal was approved by New Zealand's Minister of Health in late 2000 and Maryanne became part of the build and design team that built the bus over a 9-month period. During that time she also researched and purchased the equipment for the bus and sourced suppliers of consumables for ambulatory surgery.

She then assisted to set up the 5-week bus visiting schedule and scoped the rural sites for nurses to work with the service on visits. In addition, Maryanne worked on the rural nurse education and training in-service programme. She then worked on the bus following the first year problem solving many issues at District Health Board and local hospital level. She went on to become General Manager of Mobile Surgical Services in August 2002. Clearly, Maryanne's strong leadership and other characteristics identified those identifying factors that successful nursing innovators possessed, and which were fundamental to the success of the Mobile Surgical Services in New Zealand.

Business entrepreneurial activities

Vollman prone positioner, USA

US nurse Kathleen Vollman MSN, RN, CCNS, CCRN invented the Vollman Prone Positioner.

The prone positioner assists critically ill patients to lie prone, which improves oxygenation. Vollman's entrepreneurial activities demonstrate one of the core competencies of design, implementation and evaluation of innovative interventions for patient care. Initially the design was conceived of while Vollman was completing her CNS masters programmes.

She developed the prototype using her own resources and networks and subsequently developed two more prototypes to refine the design and workings. She now holds a patent on the device.

Kathleen Vollman has since licensed the device to Hill-Rom, which is an international company that manufactures and distrib-

utes beds, support surfaces and furniture. Vollman has a consulting contract with Hill-Rom related to the marketing and education of the device. The Vollman Prone Positioner is now used worldwide to enable the turning and positioning of critically ill patients.

Education

Emory International Nursing Programme, USA

The Emory University School of Nursing, in partnership with the Rollins School of Public Health, offers an innovative programme leading to dual Masters degrees in International Health, the International MSN-MPH. This programme aims to prepare leaders in international nursing and public health, granting dual degrees in Nursing (MSN) and Public Health (MPH). The programme is housed in the Lillian Carter Center for International Nursing in the Emory University School of Nursing. This centre was born of Emory's strong partnership with the Carter Center and the nursing school's commitment to the global advancement of health through nursing.

Emory University is based in Atlanta, a city that is home to key players in international health. This international environment presents students with unique opportunities for professional growth. Students in the International MSN-MPH will be offered many opportunities to collaborate with these organizations.

Ethiopia Public Health Training Initiative

Nell Hodgson Woodruff School of Nursing faculty member Dr. Joyce Murray holds the position as director of Ethiopian Public Health Training Initiative (EPHTI) in collaboration with the Carter Center. The goals of the initiative are to first, strengthen the teaching staff of the interdisciplinary health sciences faculty in the colleges and universities in Ethiopia. Second, the initiative produces training modules for teaching multidisciplinary students about major diseases and health problems in Ethiopia, and third enhances the quality of the learning environments by increasing access to resources. Specific responsibilities for the project include the development and implementation of 2-week workshops on teaching learning for health sciences faculty including nurses, physicians, health officers, medical laboratory technicians, and environmental health faculty. In order for this initiative to succeed, the organization demonstrated that processes and mechanisms are in place to support innovative practice (Drucker 1986; Blohowiak 1992; Radka 2002).

Technology

Smart phones and data access

Northland District Health Board is one of 21 district health boards (DHBs) across New Zealand, which has a responsibility to

improve, promote and protect the health of the 145 000 people living in Northland.

The Northland District Health Board employs 50 district nurses who are required to manage extensive workloads caring for patients in geographically isolated areas dealing with historic and current patient records to ensure that the management of numerous daily tasks is aligned.

The DHB considered technology as an enabler and worked with Microsoft NZ Innovation Centre to create a mobile solution that would enable nurses to access patient data and medical support via pocket PCs which could be used both in the field and in the office (IStart 2004). While visiting with patients in the community, nurses can access patient information, current schedules and support for diagnosis as well as update the system as they go. This solution has greatly minimized the time nurses spend on administrative tasks enabling them to focus on patient care. Clearly the organization has in place processes and mechanisms to create opportunities for innovation to occur – one of the fundamental principles of innovation (Drucker 1986; Blohowiak 1992; Radka 2002).

Public health

The Interdisciplinary Neighbourhood Team Project in Washington sought to organize and develop teams of several types of public health staff to implement core public health functions. The focus of the project was on balancing delivery of traditional services with new population-based community-driven mobilization concepts of practice. A total of 17 community groups were mobilized and public health nurses-led projects. Each public health nurse paired with a community outreach worker (Westbrook & Schultz 2000).

One public health nurse was involved in 14 of the 17 community groups including:

- a shelter for battered women;
- teenagers in an alternative high school programme;
- a group from several faith communities that organized a congregational nursing programme;
- residents from two apartment complexes with low income and older residents;
- Hispanic and Iraqi mothers' groups;
- a coalition of parents and teachers to combat lice in schools;
- a homeless men's shelter;
- a mobile dental van;
- a parent support network;
- a seniors' group;
- AN action group to confront discrimination of minority and immigrant persons; and
- a group to deal with unintended pregnancies.

There are several exemplars from this project that are worth highlighting.

A group from several faith communities organized a congregational nursing programme. This programme represented attention to people who had been poorly served by health – older adults, the chronically ill, and homebound sick. Attending to underserved populations is a primary goal of the change in public health practice.

The ‘Lice Aren’t Nice Community Coalition’ achieved several innovative outcomes for its community. It researched and verified better treatment strategies and equipment available locally. The group formulated new treatment and prevention policies for schools and day care centres. It also published an educational prevention and treatment brochure that is endorsed by public health professionals and other health care providers.

The overall outcomes for the Interdisciplinary Neighbourhood Team Project were first, improved access for hard-to-reach and potentially costly high risk groups; second improved linkages between provider goals and community group priorities; and finally increased visibility of the district in the community.

Policy

Kenya Workforce project

The Kenya Workforce Project, funded in the USA through a cooperative agreement with the Association of Schools of Public Health, by the CDC, addresses two key dimensions of capacity building and maintenance to address major health threats in the developing world – particularly Africa and those countries seriously imperiled by HIV/AIDS.

The Kenya Workforce Nurses Study, funded by ASPH/CDC continues to work closely with Kenya consultants to describe and analyse baseline data for nurses working across various sectors in Kenya.

The first dimension is the development of workforce data and analytic capacity necessary for effective workforce planning and response. To this end, the project is developing a multi-sectoral, collaborative, computerized workforce data system that will enable Kenyans to address planning related to both supply and requirements sides of the nursing and midwifery workforce. Both the process and the actual system are intended to serve as models for other countries.

From the supply side, data includes numbers of nurses educated and licensed, age of current nurses, currently licensed nurses not working as nurses, nurses migrating out of Kenya and nurses who have died. Information is also being gathered about where the nurses are employed.

Concurrently, the HIV/AIDS crisis and re-emerging conditions such as malaria and tuberculosis have increased the demand for health care provision in Kenya. HIV/AIDS has not only increased the demand for care, it has also diminished the work-

force as nurses and other health professionals contract the disease. In Kenya, as in many other African countries, access to reliable data regarding the impact of migration and HIV/AIDS on the workforce is not available. Technical assistance includes estimating the impact of HIV/AIDS on the workforce to help mobilize resources for treatment and protection of the workforce.

The second dimension is the assessment of the impact of HIV/AIDS on the current nursing workforce. This will provide the information necessary to quantify and assess the actual cost of the disease with respect to nurses and their capacity to provide services. This information is crucial for developing and funding strategies that will support the prevention and treatment of the disease in health workers and their patients. The insights gained from this portion of the project have important implications and potential applications to other African countries – and portions of the developing world experiencing similar challenges.

This project is country based and driven and is a microcosm of nursing workforce issues globally.

Modern Matrons in the NHS (UK)

In 2001, the UK introduced ‘Community Matrons’. This was to be the government’s answer to public and political lobby to have someone back in hospitals with the authority to manage overall care environment. Specifically, modern matrons secure and assure the highest standards of clinical care by providing leadership to professional and direct care staff; ensure that administrative and support services are designed and delivered to achieve the highest standards of care; and provide a visible, accessible and authoritative presence in ward settings – someone to whom patients and their families can turn for assistance and advice (Department of Health 2002).

Community matrons are the focal point for coordination of care delivery, coordinating a range of agencies and professional groups through health and social care to deliver the optimal care package.

The policy drivers behind the role are improving access options, reducing pressure on acute services admissions, and minimizing primary to secondary care referrals, especially inappropriate ones.

The concept of hospital ‘matrons’ is certainly not a ‘new’ innovation. However, the concept is innovative in this century simply because it is new to this era, and new to hospitals across the UK. This aligns with an important principle of innovation identified by Hargadon & Sutton (2000) who consider that initiatives do not have to be new to be innovative.

Disruptive innovations

Christensen et al. (2000) describe the concept of disruptive innovations which are innovations that are cheaper, simpler, more

convenient products or services; they are fundamental in improving our quality of life; and they improve the cost, quality and improvement of care.

Nurse Practitioners are described as disruptive innovations – they provide care of comparable quality, devote more time to patients during consultations than physicians do, and emphasize prevention and health maintenance to a greater degree. Because of advances in diagnostic and therapeutic technologies, Nurse Practitioners can now competently and reliably diagnose and treat disorders that would have required training of a physician only a few years ago.

We need these innovative disruptions, however, unfortunately the people and institutions whose livelihoods they threaten often resist them – hence the title ‘disruptive innovations’. The authors consider that the real reason for blocking such a disruption is ‘the predictable desire of physicians to preserve their traditional market hegemony’ (p. 108). This resistance is not in the best interests of the industry or the patient.

Instead of working to enable the natural upmarket migration that is an intrinsic part of economic progress, today’s managed care organizations, insurers, and regulators have forced highly trained physicians down-market to diagnose ear infections and bronchitis and have prevented nurse practitioners from doing things that technology enables them to do perfectly well.

Leaders of today’s hospitals and managed care companies need to enable disruptive innovations to emerge resulting in lower costs, higher quality, and greater convenience than could ever be achieved under the old system.

Primary health care nursing innovations: New Zealand

In 2002, the New Zealand Ministry of Health funded 11 models of innovative primary health care nursing practice. The innovations were funded as part of the implementation of the Government’s Primary Health Care Strategy, which was developed in 2001. These innovations were located across the country in a range of settings and included initiatives such as building capacity to lead primary health nursing practice developments in the region and groups of providers working together to provide new systems of integrated care, advanced nursing models and new modes of service delivery. Some of the innovations focused on providing a range of nurse-led services focusing on specialty areas such as youth health, occupational health, health promotion and preventive services. The provision of funding to support such initiatives provided the opportunity necessary in order for innovation to occur – a principle that is critical to innovation occurring (Drucker 1986; Blohowiak 1992; Radka 2002). Prior to the provision of this innovation funding, there was little opportunity in many areas for nurses to initiate innovation in primary health care (Expert Advisory Group on Primary Health Care Nursing 2003).

For example, the Hutt Valley Youth Health Service innovation is a nurse-led youth health service with strong links to Hutt Valley community, secondary schools and primary health providers focused on high-need clients.

The service employs a primary health care nurse who holds four clinical sessions per week between the Upper Hutt and Lower Hutt centres of the Hutt Valley Youth Health Service, and provides case management for high-need individuals.

The primary health care nurses do additional work such as supporting school-based clinics, health promotion projects, outreach clinics and home visiting. All services are offered free of charge which avoids financial barriers to access, and they have a multi-disciplinary approach which incorporates a range of services to support whanau and Rangitahi/youth development.

There is high quality referral and follow-through from the service and a smoother transition to secondary care youth services. There is also less unnecessary use of specialist services such as emergency departments.

The Health Reporoa innovation provides nurse-led triage clinics focusing on the health needs of a population in providing first line health improvement services and preventative services.

The service provides self-referral clinics for up to 30 h per week and is conducted from its base clinic, local secondary school, community halls and local marae. It provides triage and treatment of minor injuries, diabetes and asthma patient care, wound management, counselling, ear syringing, sexual health consultations, health maintenance checks such as blood pressure, cholesterol and cardiac risk assessment.

It is a model of community nursing that encompasses health promotion and health education of the whole whanau rather than solely focusing on the sick individual. Ways it aims to make a difference including helping reduce avoidable hospitalizations, and reduce barriers of access to health services for Maori.

Conclusions

In order for innovation to occur therefore it needs to be recognized that innovation needs to be an integral part of all strategies and policies. Strong consistent leadership that ‘clears the way’ for creativity is a significant predictor of whether or not innovation can occur. Organizations therefore need to have a support climate that encourages creativity and innovation. An effective ‘innovation pipeline’ needs to be developed incorporating systematic processes in order for innovation to be delivered. It is unlikely, as both the literature and innovators themselves tell us, that serendipity, divine intervention, or luck will result in innovation occurring.

Behavioural traits and collective mindsets can be a major impediment to innovation – consumers therefore need to be involved to support a dialogue of innovation. The future is some-

thing they do not know they want until they can see it or are made aware of the possibility.

Technology is an enabler in the innovation pipeline. The role of the nurse can never be substituted by any kind of machinery or technology. However, technology can be a useful tool that nurses can harness to improve innovation opportunities.

It is clear that those focused on developing innovations need to know the outcome they want to achieve and to remain focused on their goal. Clarity is power. Then, action should be taken, decisions made and acted on. Notice the results occurring from actions and monitor and identify what is not occurring and take further action.

Innovation is not only possible; it is both achievable and cost effective. Florence Nightingale introduced systematic handwritten records to the medical profession 150 years ago. It is time to take the next step.

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