

GESTIONS HOSPITALIÈRES ARTICLE: CHAI CHUAH PARIS VISIT

Head: NEW ZEALAND GOVERNMENT REPRESENTATIVE INSPIRES HEALTHY DEBATE IN FRANCE

Sell: New Zealand, well known for its pristine landscapes, healthy lifestyle and innovations, is also leading the way in eHealth. Chai Chuah, the National Director of the New Zealand government's Health Board visited Paris on 17th October 2011 to deliver a keynote speech on the future of the health sector, in light of France's adoption of the national Electronic Health Record (DMP), which is an important area of focus in New Zealand.

Body: Chai Chuah, National Director of the New Zealand government's Health Board, landed in Paris following an appearance at the Global eHealth Forum in Hamburg, where he delivered a keynote speech to around 200 delegates from more than 30 countries about the Challenges and Opportunities in Sustainable Personalised Healthcare in New Zealand.

Mr Chuah's arrival in France presented the perfect opportunity for debate about the national Electronic Health Record, which France is currently implementing, led by the Agency for Shared Information Systems (ASIP Santé). A workshop was held in the afternoon for French and New Zealand health technology companies operating in France to learn more about the strategy and implementation of the health information system.

UNDERSTANDING INTERNATIONAL MARKETS

New Zealand health technology companies Fisher & Paykel Healthcare, Orion Health and Precept Health attended the workshop, which aided their understanding of working across different international markets.

Scott Sigal, partner at Open Monitoring which represents Precept Health in Europe, said: "Chai Chuah helped me understand the big differences in method between New Zealand and France, in terms of getting things done as a team with pragmatic 'can do' and 'keep it simple' attitudes that characterise New Zealand."

Precept Health is a software development company specialising in the development of medical software systems for intensive care units, operating rooms, emergency departments and acute care units. The company focuses on clinical workflow software and medical device integration, which improves efficiency, lowers operating costs, and gives hospitals the freedom to choose best-of-breed medical devices from a variety of brands.

Attending from its French office located on the outskirts of Paris, New Zealand company Fisher & Paykel Healthcare is the leading designer, manufacturer and marketer of products and systems for use in respiratory care, acute care and the treatment of obstructive sleep apnea.

DISCUSSING THE FUTURE OF THE HEALTH SERVICE

In the evening, the aforementioned New Zealand companies were joined by Manuka Health, (whose product range consists of unique to New Zealand active MGO™ Manuka honey plus BIO30™ Propolis products, bee pollen, royal jelly and functional foods) for a presentation and roundtable discussion on the future of the health sector hosted by New Zealand Ambassador in France, Rosemary Banks, at her official residence in Paris.

Chai Chuah started proceedings by outlining how New Zealand ensures the longterm development of its health system through improved efficiency and better sharing of information. Mr Chuah's insight revealed how New Zealand is developing new models of care, which have relevance to other OECD countries, including France.

"France and New Zealand healthcare providers face similar challenges to cope with the increased expense and demands of an ageing population. In response to the enormous challenge of delivering higher levels of care at reduced cost, models of care are changing," said Chai Chuah. "There is increased clinical and system integration. Patients are being empowered and resources streamlined, resulting in Personalised Healthcare."

France is one of the world's largest health technology markets devoting 11% of GDP to health spending, the 2nd highest in the world behind the US. Major reform is underway in France to address the multi-billion euro deficit in health spending, by improving its health IT infrastructure to drive efficiency within both public and private hospitals.

In his presentation, Chai Chuah explained how his country has developed health informatics to drive efficiencies: "New Zealand is committed to protecting and improving its health system on a sustainable basis and realises that new approaches are required to increase quality cost effectively. We are currently focusing on more clinically led innovative models of care; greater involvement of patients and consumers in designing our future health services and greater integration of investment in IT, workforce and infrastructure," he explained.

With a small, geographically dispersed population and remote locations, New Zealand has strong incentives to develop and implement new approaches to healthcare delivery using innovative health technology. New Zealand's health system is largely funded through taxation and delivered by a mixture of public and private providers. Hospital services are generally provided by public district health boards, while primary and community care is mainly delivered by private providers receiving funding assistance from government.

Over the last 60 years, the increase in funding for health services has outpaced GDP growth. Historically, New Zealand was one of the first countries to introduce (over 20 years ago) a unique patient identifier and has extended the system to include a similar identifier for all health practitioners and organisations.

By the end of the last century, there was effectively a 100% uptake of clinical support systems in primary practice.

INTEGRATION OF CARE

New Zealand's effective integration of care is particularly respected. Health is viewed as a series of continuums: (a) from patient to primary medicine, community and ancillary care, to the secondary and tertiary sectors (b) from public to private (c) from strategy to operation.

Key areas of focus where New Zealand providers are attracting major international attention include:

- The use of Shared Care Plans for patients with long term conditions by patients' clinical teams, ancillary service providers and patients and families. Using a summary care record drawn largely from existing data sources, the care team asynchronously accesses and updates a patient's Care Plan, which is accessible to the patient and nominated family members.
- The integration of primary and secondary services, utilising clinical pathways developed and agreed between specialist and GP communities. These involve triaging patients at primary level, resulting in reductions in referral rates and hospital admissions. This integrated approach is aligned with funding and reward frameworks.
- Regionally held Clinical Data Repositories (CDRs) that record all patient interactions in relation to such aspects as laboratory results, Picture Archiving and Communication System (PACS) and, increasingly, medication history. These CDRs are accessed and updated by primary and secondary providers.
- The application of 'lean thinking' principles to improve workflow within hospital environments while taking an integrated view of the patient's journey.
- At national level, datasets of all patient interactions, national screening programmes, morbidity and mortality data, providing a rich population health research and policy development resource.

From 1994-2008, at an estimated cost of £15m (approx €17.4m), New Zealand has achieved particular progress in three key areas, namely: (1) a "high level of computerisation, such as laboratory tests, discharge summaries, and outpatients letters routinely sent electronically to general practitioners (2) remote access to laboratory and other reports from any public sector hospital in the country and (3) patients remote access to their GP records"¹.

¹ 'Moving beyond the cathedral model for IT development', Trisha Greehalgh & Tom Bowden, BMJ 2011; 343:d6480

This focus on innovation has resulted in New Zealand's health sector being recognised internationally as a provider of high quality and cost effective services. For example, a 2009 Commonwealth Fund survey ranks New Zealand first for advanced electronic health information capacity among primary care physicians and second for use of electronic medical records.² Additionally, a 2010 Commonwealth Fund study ranks New Zealand first in overall quality of care, coordinated care and patient-centred care.³ This is despite the fact that the average spend on health per head of population in New Zealand is about 25% less than in France.

CULTURE OF COLLABORATION

New Zealand enjoys a culture of strong collaboration between scientists, engineers, entrepreneurs and medical professionals. Researchers and product developers work closely with clinicians and the health sector to identify medical needs, areas for improvement and potential technology development.

Internationally, the level of collaboration found within New Zealand's health sector is rare. It results partly from close connections between the country's universities and other research institutions, but also from strong links to industry and international markets. The sector is focused on market opportunities and on building international partnerships.

Key eHealth initiatives include opening up online access between hospitals and primary care for emergency care, the roll out of nationwide eReferrals and eDischarges, early work in transferring records between GPs, and eMedication in hospitals and primary care.

This approach is exemplified in New Zealand's eHealth patient portal, described by Mr Chuah in his presentation. "The current phase of this project has provided us with the opportunity to design personalised healthcare and make important medical information (such as medication, allergies, etc.) available for individuals and providers," he said. "It is these kinds of initiatives that keep New Zealand at the forefront of eHealth innovation and encourage other countries to look on the country as a test bed for their own future developments. The phase will focus on capturing broader information from patients and their families, driven and controlled by them."

Challenges and opportunities with respect to this latest personalised healthcare initiative include:

1. To provide sufficient evidence of sustainable impact on health and fiscal outcomes.
2. To ensure there is integration with other key government health improvement priorities (such as improvement in medication management).
3. To move beyond "another good IT application looking for a problem to solve".

² C. Schoen, R. Osborn, D. Squires, J. Peugh, and S. Applebaum, Perspectives on Care, Costs and Experiences: A Survey of Primary Care Physicians in 11 Countries, 2009

³ K.Davis, C.Schoen and K.Stremikis, Mirror, Mirror on the Wall: How the Performance of the U.S. Health Care System Compares Internationally 2010 Update, The Commonwealth Fund, June 2010

4. To switch the drive and ownership of this initiative from the clinician to consumers.

NEW MODELS OF CARE

Mr Chuah's presentation was followed by presentations from Guy Collet, Strategic Advisor at the French Hospital Federation and Marc Boisnel, Deputy Delegate for International and European Affairs at the Ministry of Work, Employment and Health. Later, the Master of Ceremonies and journalist Marie-Dominique Montel led a roundtable discussion between the three speakers and the audience during which strategies for incorporating New Zealand's new models of care into the French health sector were discussed.

Because France's health system has a similar structure to that of New Zealand, France has been able to view New Zealand's experiences as "pilots" before implementing changes. An increasing proportion of clinicians in New Zealand are using the Internet to communicate with patients and there is a rapid uptake across the sector of shared records. World-leading New Zealand e-Health company Orion Health attended the workshop and evening event. Orion Health's clinical workflow solutions are used by more than 300,000 clinicians worldwide to manage and deliver better patient care to around 30 million patients in 30 countries.

Among its European projects, Orion Health implemented regional Electronic Health Records (EHR) in the Balearic Region of Eastern Spain to provide clinicians with widespread access to patient medical records, resulting in improved quality of care and provider efficiency and reduced costs for the regional health organisation. Orion Health opened its Paris office earlier in 2011. The national EHR being developed for all French citizens offers New Zealand companies opportunities to connect to the EHR infrastructure with value-added health technology products and services.

New Zealand's achievement in cost effective provision of healthcare is based on many factors, not least its cultural resilience and self reliance stemming from the country's geographical isolation. However, it is clear that innovative and prudent investment in technology has played a significant role, driven by a local IT industry that has sought to pioneer new approaches and drive innovation in collaboration with local health provider organisations.

INNOVATIVE HEALTH INFORMATICS

New Zealand is building an international reputation for the quality of its innovative health informatics offerings. Key areas of ICT focus within the healthcare environment in New Zealand include applications that assist in patient care and public health management, data transfer between sites, and network and storage security. Particularly respected is New Zealand's effective integration of care. Health is viewed as an integrated series of continuums: from patient to primary medicine, community and ancillary care, to the secondary and tertiary sectors; from public to private; from strategy to operation.

Winscribe, a New Zealand digital dictation company supporting the workflow management of the modern healthcare organisation, offers a departmental or enterprise-wide software solution that covers all digital dictation, transcription and voice recognition requirements. This solution provides full patient data security levels, resulting in accelerated processes, a higher number of patients that can be treated, reduced waiting times, a fast return on investment and overall improved patient care. Winscribe's European customers have been taking full advantage of all that Winscribe has to offer since it was introduced to the UK in 1998. An additional office was subsequently opened in Zurich to better serve its customers in Central and Southern Europe.

New Zealand was the first country in the world to establish a ubiquitous electronic Population Health Index – a system that contains a comprehensive database of nearly 20 years of health encounters – and which is now supplemented with an equally comprehensive Health Practitioner Index. As well as being used for formulating public policy, these indices have been the foundation of the development of rich datasets, which in turn has greatly facilitated the growth of an internationally respected health research capability.

An example of a New Zealand company delivering innovative optimisation technology in Europe is award-winning Optima, a leading operations research company that delivers simulation software solutions for the emergency services, using advanced mathematically based technology. In Denmark, *Optima predict* helped the government to remodel its ambulance service by determining how many ambulances to use and where to place them to get the same approximate response times throughout the region. Four years later, regional emergency medical services performance data has validated *Optima predict* performance metrics.

New Zealand technology is also applied in the UK at Bedford Hospital and Northampton General Hospital NHS Trusts. Both have made cost savings by implementing CapPlan capacity planning and bed management systems, from New Zealand company Emendo. This improves operational performance by using predictive analysis to accurately match resources with demand for services. Bedford Hospital saved €127k (£110k) over the first four months of implementation, and to date is averaging savings of approximately €690k (£600k) per annum in Inpatient areas alone. At Northampton General Hospital, CapPlan identified potential efficiency savings of approximately €794k (£690k) in its first year of operation.

PROVIDING TELECARE FUNCTIONS

With a trend for healthcare to be increasingly delivered at home, New Zealand is using its capability in health informatics to inform and empower patients. By 2014, all New Zealanders will have a core set of personal health information available electronically to them and their treatment providers, regardless of where they are accessing health services.

New Zealand specialist design and build electronics company, Chiptech, is a leading manufacturer of medical (social) alarms – enabling people to remain independent, safe and healthy in their homes. Chiptech's latest Smartware product, the Personal Response Unit (PRU) is an affordable social alarm that is also able to provide telecare and telehealth functions. Some of the many options include medication management, caregiver monitoring, activity monitoring, along with the ability to collect and forward health data.

France's plans to implement telehealth products and regional pilots will provide many opportunities for collaboration with New Zealand companies such as Chiptech, with the aim of identifying best practices that can be rolled out nationwide from 2012-14.

RECOVERY AND REHABILITATION

Already operating in the French market, F R Galantai Manufacturing is a privately owned New Zealand company with a range of patented products and manufacturing processes that are used in a range of single-patient use channel cleaning devices. The Pull Thru/Push Thru devices provide efficacious cleaning of endoscopes and other medical equipment channels, using a patented wiper technology, removing the risk of cross infection. The products have European CE medical marking.

Other examples of New Zealand health technology companies targeting the French market include Im-Able, Comvita and Mesynthes. Each is concerned with recovery and rehabilitation. Im-Able is a biomedical engineering company specialising in medical devices for use in stroke or brain injury rehabilitation. Following certification of compliance with European quality standards, the first product to be made available in Europe is the multi-award winning Able-X upper arm rehabilitation system, a therapeutic games computer system designed to help improve arm movements and cognitive skills through exercise and brain stimulation. It has been clinically proven to accelerate recovery from stroke and other neurological disorders in adults and children.

Comvita is a trusted global brand, committed to developing innovative natural health and wellbeing products, backed by credible scientific research. Comvita is the world's largest manufacturer and marketer of Manuka (Leptospermum) honey, under its Medihoney™ brand. Leptospermum honeys, which are native to New Zealand, have unique antibacterial and healing properties that make them ideal for use in wound and skincare products. Medihoney™ products contain a standardised medical grade of honey from these species. The company sells its products in over 20 countries.

Another New Zealand company operating in the wound care sector, Mesynthes is a regenerative medicine company focused on developing and commercialising products for wound care and reconstructive surgery. Mesynthes has developed Endoform™, a novel extracellular matrix based technology with superior regenerative properties, encouraging rapid vascular ingrowth, cell proliferation, matrix deposition and remodelling.

Ariane Gonzalez, New Zealand Trade Commissioner in France for New Zealand Trade and Enterprise said: "This event has highlighted the importance of sharing best practice. New Zealand is committed to protecting and improving its health system on a sustainable basis, and recognises that new approaches are required to increase quality while reining in spending. The roundtable discussion exemplified the collective challenges faced by France and New Zealand and opened the door for new ideas and solutions."

For further information on New Zealand's health technology sector and companies please contact Nicolas Pessus, Business Development Manager for New Zealand Trade and Enterprise in Paris on nicolas.pessus@nzte.govt.nz or visit the website newzealand.com/business

Fast facts:

- New Zealand GPs have the second-highest rate of electronic patient record use, second only to Denmark.
- Practice management software is currently estimated to be used in 95 percent of New Zealand general practices.
- In New Zealand, 90 percent of primary care physicians and 100 percent of laboratories communicate via secure health data networks every day.
- 82 percent of New Zealand physicians report receiving excellent information feedback for patient referrals to other doctors and/or specialists. This compares to 75 percent in the United Kingdom and 37 percent in the United States.
- New Zealand has had a fully specified National Health Index (NHI) system for patients since 1992.
- New Zealand's health spend per capita ranks as one of the most cost efficient for an OECD country – at US\$2,983 (approx. €2228), it is close to one-third of the United States health spend per capita.

Image:

From left to right: Zak Cole, Business Development Manager, NZTE Hamburg; George Arnold, Director, Health Programme, NZTE; Nicolas Pessus, Business Development Manager, NZTE Paris; Rosemary Banks, NZ Ambassador in France; Chai Chuah, National Director of the National Health Board Business Unit of the New Zealand Ministry of Health; Marc Boisnel, Deputy delegate for European and International Affairs, Ministry of Work, Employment and Health; Guy Collet, Strategic Advisor, French Hospital Federation; Ariane Gonzalez, Trade Commissioner, NZTE Paris.



About Chai Chuah: Chai Chuah is National Director of the National Health Board Business Unit of the New Zealand Ministry of Health.

The NHB Business Unit is central to the new model for planning and funding of health services and changes that will have an emphasis on:

- Stronger clinical leadership
- Improving quality and safety
- Higher service performance
- Improved regional and national decision making, and
- Reducing administrative cost and waste

Before joining the Ministry, Chai was Chief Executive of Hutt Valley District Health Board – a position he held since 2002.

About NZTE: New Zealand Trade and Enterprise (NZTE) is the New Zealand government’s national economic development agency and the gateway to New Zealand business opportunities.

Through its global network of offices, NZTE works to connect international businesses and investors with New Zealand business opportunities. New Zealand encourages direct investment by, and trade with, international companies and business people, particularly those that result in the creation of new ventures, the relocation of existing operations to New Zealand, and strategic partnerships or joint ventures with New Zealand companies.

The focus is on New Zealand businesses and industry sectors with high growth potential. For more information please visit www.newzealand.com/business