



## Cook Islands



### Kindly describe a successful or challenge e-health initiative your country has taken.

*A successful e-health initiative that has been implemented by the Cook Islands Ministry of Health (CIMO) is the rollout of MEDTECH32, an electronic patient healthcare management system.*

*MEDTECH32 enables the centralisation of patient medical records (clinical, dental etc) into a single database. With the deployment of ICT equipment to outer-island rural healthcare centers, the MOH is able to use MEDTECH32 to capture clinical details of outer island patients into this single database.*

*MEDTECH32 has also made it possible for laboratory tests that are sent abroad for analysis to be transmitted back electronically into the patient file.*

### What were the financial challenges and costs associated with implementation of this programme?

- ✦ *The initial financial challenge was to find source funds for the purchase of the MEDTECH32 software and monthly costs for support and maintenance of MEDTECH32.*
- ✦ *MEDTECH32 required the setup of local area network (LAN) for the CIMOH at the hospital. For this, system administrators had to be employed to oversee the building of the LAN and deploying MEDTECH32 within the LAN.*
- ✦ *ICT equipment (workstations, server, printers, etc.) had to be purchased and integrated into the network in order for MEDTECH32 to be loaded and electronic capture of patient details to begin.*
- ✦ *Training in use of MEDTECH32 had to be conducted, which meant that healthcare workers from the outer islands had to be flown in, or system administrators flown out to these outer islands on an all-expenses-paid trip by CIMOH for the MEDTECH32 training program.*
- ✦ *Costs associated with providing internet access for the outer islands health centres were required. This was because access to MEDTECH32 from the outer islands was only possible via internet connectivity using Windows Terminal Server.*
- ✦ *On the main island of Rarotonga, leased lines had to be rented from the only telecommunications provider in the Cook Islands in order for clinics at the secondary sites to be able to use MEDTECH32.*

### What have been the main technological challenges to implementing e-health in your country?

*The main technological challenge to implementing this e-health initiative is endeavoring to deploy MEDTECH32 effectively with the available telecommunications infrastructure that is currently in place.*

*For CIMOH's Wide Area Network on Rarotonga, the effectiveness of MEDTECH32 at its second site is confined to the speed at which the leased lines joining it to the main site operates. The main site on Rarotonga is up at the Rarotonga Hospital, which houses the CIMOH main servers, including that of MEDTECH32.*

*The outer island health centres are faced with a similar situation where their use of MEDTECH32, which is primarily through Windows Terminal Server, is determined by the internet speed available in the outer islands.*

### Have any ethical issues been raised during the design and implementation of e-health programmes?

*With MEDTECH32 being readily used by all sectors of the CIMOH, policies and restrictions had to be setup to determine the type of patient information that healthcare workers in certain sectors of the CIMOH had access to.*

*MEDTECH32 has inbuilt functions that system administrators use to grant or deny access of modules available to healthcare workers.*

### Has the implementation of e-health programmes required any legal or regulatory changes?

*With the internet as the primary tool for deploying MEDTECH32 throughout all major health centers in the Cook Islands, CIMOH has put into place strict security measures to protect its network from cyber threats. While these measures have proved effective to date, the sensitivity of medical records in electronic format requires that legislation be put in place to protect against illegal electronic activity.*

*At the present time, electronic activity within the Cook Islands is not protected legislatively against criminal activity associated with electronic data.*

### What have been the outcomes of your e-health initiatives?

- ✦ *The implementation of MEDTECH32 means that CIMOH is able to centralise the medical records of its entire population into a single database. This means that regardless of the migration of people within the Cook Islands, healthcare workers throughout the country will have up-to-date information on the patient.*
- ✦ *MEDTECH32 allows patient information that is critical to diagnosing patients (e.g. laboratory results) to be readily available and accessible to healthcare workers regardless of the hospitals or health centres they are operating from. The speed of accessibility is far better than prior to the implementation of MEDTECH32.*
- ✦ *In terms of statistics, MEDTECH32 gives a better picture of the state of health in the Cook Islands population. It has led to more accurate reporting and better analysis of health statistics.*