

**EVALUATION OF IIMS EDUCATION AND TRAINING AND
HEALTH PROFESSIONALS' EXPERIENCE OF WEB-BASED IIMS
TRAINING FOR INCIDENT REPORTING**

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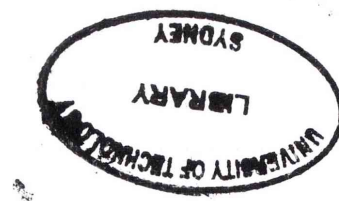
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“Dedicated to patients who have endured harm or lost their lives
due to incidents”

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NOTE TO READERS ABOUT THE MASTER OF HEALTH SERVICES (HONOURS) PROGRAM AT THE UNIVERSITY OF TECHNOLOGY, SYDNEY (UTS)

The UTS Master of Health Services (Honours) degree provides the opportunity for health service professionals to develop and extend research skills through a program of structured study and research. The structured study includes three course work subjects on research methods that enhances the research skills of health services researchers, focuses on health policy and increases the international focus of health services research in Australia. The research component enables: informed participation in research endeavours and health services improvement within an international context; and facilitates health professionals to research health policy issues in a systematic manner through a program of supervised research. The outcome of this research is displayed in a scholarly way by means of this thesis. An additional piece of scholarly work, a report titled 'Evaluation of the Incident Information Management System in New South Wales: Study No. 2 – Review of the education and training program' was submitted to NSW Health as part of the evaluation of the IIMS in NSW (Ekambareshwar, Travaglia, Braithwaite, & Westbrook, 2006) (Appendix 4). That contribution was one of ten reports of the evaluation of the Incident Information Management System (IIMS) conducted by the Centre for Clinical Governance Research in Health (CCGR), University of New South Wales.

ABSTRACT

Evaluation of IIMS education and training and Health Professionals' experience of web-based IIMS training for incident reporting

The study of a State-wide electronic incident management system such as the Incident Information Management System (IIMS) in New South Wales (NSW) and electronic reporting of incidents is a relatively under-researched area. Educating health professionals in incident reporting is critical to the success of electronic incident reporting systems. Web-based training for IIMS incident reporting was introduced to NSW Public Health Organisations (PHOs) in 2004 as the main mode of training for IIMS. In this study, training programs provided in the use of IIMS were reviewed and health professionals' perceptions of web-based IIMS training were explored. This study was undertaken at a metropolitan Area Health Service (AHS) in NSW.

Data were collected, analysed and triangulated from the following sources: participant observation of IIMS face-to-face training; interviews with key stakeholders of IIMS; analysis of web-based IIMS training and video training material; log-file analysis of IIMS training database; administration of a purpose-built questionnaire to health professionals who undertook web-based IIMS training; and interviews with non-participants of web-based IIMS training.

Although web-based training is the official training program to educate health professionals to report incidents into the electronic IIMS, training was delivered through other media such as face-to-face presentations and video. Evaluation of the training programs reveals that training programs were well structured and

highly regarded by health professionals in the metropolitan AHS where this study was conducted. However, questionnaire data show that: health professionals prefer a blended training package; training has not had a significant impact on reporting of incidents; and training has not contributed to an increase in the number of incidents reported in the metropolitan AHS where this study was conducted.

The study uncovered low attendance numbers at web-based IIMS training and its under-utilisation. Both the web-based IIMS training attendance numbers and the incident notification numbers on IIMS imply that: nursing and midwifery health professionals have the highest attendance numbers and are the major reporters of incidents on IIMS and; it is difficult to involve medical professionals to participate in patient safety initiatives and to undertake training for such activities. Reporting of incidents by medical health professionals is vital since many incidents are beyond the scope of nursing health professionals.

In conclusion, health professionals working in PHOs play a key role in the adoption of the electronic IIMS incident reporting system and reporting of incidents into the system. It will be imperative to increase the computer self-efficacy of all health professionals for the success of this and future web-based training programs; and to increase awareness of incident reporting systems and training programs particularly for IIMS incident reporting. Health systems will benefit by integrating training on information technology and data systems into both pre- and post- registration curricula for all health professionals.

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ABBREVIATIONS

ACSQHC	Australian Commission for Safety and Quality in Health Care
AHS	Area Health Service
AIHW	Australian Institute of Health and Welfare
AIMS	Australian Incident Monitoring Study
CCGR	Centre for Clinical Governance Research in Health at University of NSW
CD-ROM	Compact Disc Read Only Memory
CEC	Clinical Excellence Commission
CGU	Clinical Governance Unit
DVD	Digital Versatile Disc
HCCC	Health Care Complaints Commission
HPs	Health Professionals
IIMS	Incident Information Management System. Electronic system used to record all healthcare incidents in NSW
IPSEL	Introduction to Patient Safety E-Learning
ISQuA	International Society for Quality Assurance in Health Care
NPSA	National Patient Safety Agency
NSW	New South Wales
NSW Health	The NSW health system
PHOs	Public Health Organisations

PSCQP	Patient Safety and Clinical Quality Program
QAHCS	Quality in Australian Health Care Study
RIB	Reportable Incident Brief
SAC	Severity Assessment Codes
SIP	Safety Improvement Program
UTCCRS	University of Texas Close Call Reporting System
www	World wide web

GLOSSARY OF TERMS

Adverse Event	Unintended patient injury or complication from treatment that results in disability, death or prolonged hospital stay and is caused by health care management rather than by the patient's underlying disease or condition.
Asynchronous web-based training	Asynchronous web-based training allows for the learner to log on to the course to complete the lesson or training at the learner's own pace and at a time convenient to the learner. There is no learner-instructor interaction.
Blended learning	This training approach includes a combination of web-based training, face-to-face workshops, individual and group activities as appropriate to the training program delivered.
Clinical Governance Units	Established within Area Health Services in New South Wales to oversee the implementation of the NSW Patient Safety and Clinical Quality Programs.
Computer Simulation	Computer simulation (or sim) is an attempt to model a real-life or hypothetical situation on a computer so that it can be studied to see how the system works. Simulation embodies the principle of 'learning by doing'.
Disclosure	Providing information to a patient or family about an incident.
E-learning	Covers a wide set of applications and processes such as web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via internet, intranet/extranet, audio-and videotape, satellite broadcast, interactive Television and CD-ROM.
Error or Medical Error	Failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim.
Evaluation	The systematic examination of a policy, program or project aimed at assessing the merit, value, worth, relevance or contribution.

Formative Evaluation	Evaluation conducted during a course of a policy's, program's or project's life.
Healthcare	Services that are provided to individuals or communities to promote, maintain, monitor, or restore health.
Incident	An unplanned event resulting in, or with the potential for, injury, damage or other loss.
Inquiry	Systematic investigation often of a matter of public interest. In the case of healthcare incidents, 'inquiry' is a systematic investigation of the events that have occurred prior to and during an incident.
Learning organisation	An organisation that continually expands its capacity to create the results it truly desires.
Log-file analysis	Involves scrutiny of the frequency and time of use of web-based training via an assessment of all logged usage.
Near miss	Any event that could have had adverse consequences but did not and is indistinguishable from an actual accident in all but outcome.
Notifier	Any member of staff of the NSW health system who enters information into IIMS of an incident or near miss.
Organisational culture	The collective set of relationships in organisations that differentiate one group from another in terms of dress, attitudes, values, behaviours, beliefs, language and shared meaning.
Preventable adverse event	An injury or complication that results from an error or systems failure.
Reporting	The process of entering or documenting data about an incident or near miss for any of the incident categories into IIMS.
Synchronous web-based training	Synchronous web-based training is instantaneous and allows for learner-instructor interaction via the web for eg. on-line discussions.

Triangulation	A multi-method research or evaluation design which adduces converging or diverging evidence drawn from pluralist sources to illuminate an object of inquiry.
Unpreventable adverse event	An injury that was not due to an error or systems failure and is not always preventable.
Utilisation-focused evaluation	Carefully considers how everything is done, from beginning to end and how this will affect use. The focus is on intended use by intended users.
Web-based IIMS training	Online training program that describes what IIMS is and explains the role of staff in using IIMS as part of improving safety in NSW Health.
Web-based training	Communication of information over the World Wide Web with the intent of providing instruction.
Whistleblowing	Voluntary release of non-public information (as a moral protest) to an appropriate audience about illegal and/or immoral conduct in an organisation.