

Overview of Mental Health Information Systems within the Republic of Ireland

1. SCOPE OF THESE SYSTEMS

Most of the information for this has come from an unpublished report from the Mental Health Commission (2006) which lists and describes the different systems (both paper-based and computerised) which are / have been, in place throughout the country. The table at (3) below gives an overview of most of these systems.

A bottom line, common to each of the HSE areas, operating these systems is that;

- (a) While a number of areas have networked computerised Mental Health Information Systems (MHIS) in place, for a variety of reasons, the use of paper based systems or spreadsheets often exists alongside these.
- (b) Administrative and Clerical Staff (with the exception of St John of God) are responsible for data entry and coding to these systems - this can involve some time delay.
- (c) In the case of Psychiatric Hospitals, many of these systems are being replaced by an HSE wide system, purchased from a company called i-SOFT. More information about this is contained in (7) below

2. PURPOSE AND FUNCTION OF THESE SYSTEMS

Computerised Mental Health Information Systems should essentially seek to fulfil three broad functions. They should be capable of being a;

- a) Patient Administration System
- b) Management Information System
- c) Clinical Information/Management System

There can sometimes be confusion over what is meant by these terms - people (or parts of the HSE) can have different understandings of what is included/meant to be part of the above, so ideally, definitions need to be worked out for each of the above.

3. DETAILED SPECIFICATION OF SYSTEMS

Ideally, this needs to be looked at from a number of different levels.

First, following on from the broad concepts in (2) above, there is a need to spell out what the detailed objectives and requirements of MHIS need to be. The Mental Health Commission sought to do this in 2006 and **Appendices 2 and 3**, describe what these might be.

These in turn are influenced by a document from the World Health Organization, *Mental Health Information Systems*, published in 2005. This does not give a technical specification for a networked computerised MHIS, but lays down the specification which such a system needs to encompass. I've printed out the title page and table of contents, which forms **Appendix 4**

Second, many of the systems below have either been designed for, or purchased by, Psychiatric Hospitals within the service. They do not necessarily have the capacity to function as a "whole mental health service" solution.

The table below gives an overview of which MHIS are either currently in use / or were in the recent past

EPEX	As we are using this, I've assumed familiarity with the system and have not elaborated any further on any of its features.
Still in use	
HAZELTRIM	This is a Hospital Information system which captures patient details, referral information, clinical information and care activities, (basically a Patient Administration System). It is used to monitor information relating to mental health services and to produce management year end reports. This system does not hold any outpatient or community-based mental health service information. Has been in use in St Brigid's Hospital, Ballinasloe
KEANE	This system was a planned purchase for the Acute Psychiatric Unit, Letterkenny and Sligo General Hospital. It has now been replaced by the i-SOFT system. It did not hold any information on outpatients or community mental health services
(no longer in use - replaced by i-SOFT)	Appendix 5 is a print out from the companies website giving an overview of what could be achieved with the software - bear in mind, that this is just a top level summary - not a detailed product description - it appears to be mainly a patient administration system
MAISY	This system has been in use in St Vincent's Hospital, Fairview, Dublin. MAISY is an acronym for Mental Health and Community Care. The system was developed in conjunction with the South West London and St George's Hospital Mental Health NHS Trust. It is a Clinical Information system. . It is a windows-based multi-specialty, administration and audit system. It holds a patient master index, referral information, and first appointment details. It is not specifically designed to support mental health service delivery. This system holds outpatient information for two internal outpatient clinics. It does not hold any information on community mental health services
	Appendix 7 is a print out from the parent company in the UK which describes the different modules/functions available through the system.
McKESSON	This system was has been in use by psychiatric hospitals in Cavan/Monaghan and Meath/Louth for the last 15 years. It has been replaced by the i-Soft system. (more about this at no.7)
(no longer in use - replaced by i-SOFT)	It's a modular Patient Administration System and given that McKesson are a US based company, most of the modules are built around the US Health Care system structures. It does not have a specific mental health module or function. However, a couple of the modules, attached as Appendix 6 , could be employed within a Psychiatric Hospital, partly as a Patient and Clinical Information System. There are modules available for Management Information as well. It does not hold any information on community mental health services.
SHIPPAS	This was an in-house computerised system developed by the former South Eastern Health Board, which at the current time, is still running in their

(still in use) psychiatric hospitals.

The system is networked throughout the entire region (i.e. Counties Kilkenny, Carlow, Wexford and Waterford).

Essentially, it's a patient administration system/management information system. It records details of Admissions, Discharges, Seclusion, Who referred the patient, What sector they are from, as well as the facility to include ICD 10 diagnosis codes. Additionally, and similar to our Epex system, it can provide a file/upload to both the HRB and Mental Health Commission to fulfil statutory reporting requirements.

4. ST JOHN OF GOD MHIS

This is a comprehensive networked MHIS in use in St John of God Hospital, Stillorgan and Cluain Mhuire mental health services, Area 1 Dublin. The design of the system began in 1993 and has gradually evolved to become a *Patient Administration System*, *Clinical Information System* as well as *Management Information System*.

Appendix 8 provides an overview of the system.

At the heart of this system is an EPR (Electronic Patient Record). Paper files, containing a GP's letter for example, can be scanned into the system

Prescribing is also done by the system. Lab results come back electronically - the system can dial into the lab - as a result the system holds same day results.

The system can also be accessed from a dedicated lap top from home, and via palm computers

The in-patient side of the system is being developed at the moment

This electronic system is being rolled out into wards of the hospitals. There are between 3-5 networked computers at each nursing station. Members of the Nursing staff, as well as the Clinical Team, enter and update the information themselves - this saves considerable time and adds value to the system. There is additionally no longer any need for use of white boards within the hospital

Additionally, a whole suite of forms is available and can be downloaded /completed via the system

5. HRB PAS

HRB PAS The HRB (Health Research Board) PAS (Patient Administration System) is a system designed by the HRB. It enables the HRB collect electronic returns on inpatient admissions and discharges from mental hospitals and acute psychiatric units who do not yet have their own electronic systems. The system is a Microsoft Access database and is similar to other PAS systems however information extraction is specifically designed for HRB downloads. This information is collected by the HRB PAS for the National Psychiatric Inpatient Reporting System (NPIRS).

6. HRB COMCAR (COMMUNITY MENTAL HEALTH INFORMATION SYSTEM)

COMCAR is a database system that was devised and operated by the Health Research Board. From its inception in 2003, it was intended to become a nationwide system for the collection of information in community psychiatric services. It is not integrated with the HRB PAS and is a standalone system. COMCAR is to be assumed into the WISDOM system. COMCAR has been installed in -

- Tullamore (Psychiatric Liaison Service)
- St Vincent's Old Age Psychiatry
- Ballinasloe
- Cork

7. THE WISDOM SYSTEM

This is being developed jointly between the HRB and the HSE and is intended to become a web based mental health information system, encompassing both in-patient and community based mental health services. **Appendix 9** offers further information about what the system is designed to do, plus the framework that will be used for evaluating both its development and on-going implementation.

Under "What are the benefits of Wisdom" and reproduced below is a description of the system will be able to do

- *WISDOM will create detailed, comprehensive records of patients within the mental health services structure. This will improve efficiency by making patient information readily available to both inpatient and community care services in a standard format on a single system.*
- *WISDOM will provide many practical benefits including the ability to schedule appointments, generate letters, and produce reports. These will save time by reducing duplication of information on different forms and documents.*
- *WISDOM will facilitate secure sharing of information between healthcare professionals by having a centralised patient database.*
- *WISDOM will improve communication between healthcare providers, by facilitating inter-team referrals, for example.*
- *WISDOM will improve communication between the healthcare providers and patients, by assisting in the scheduling of patient appointments and the generation of patient letters.*
- *WISDOM will increase healthcare providers' awareness of patients who are poor attendees or those who have not been seen by the Mental Health Service for long periods.*
- *WISDOM will facilitate access by authorised personnel to real-time patient information for out-of-hours services.*
- *WISDOM will inform service planning to better respond to the needs of users of mental health services.*
- *WISDOM will provide information for national reports and research which will inform policy, planning and practice.*

It ought to be fairly clear from the above, that what is being developed is a comprehensive MHIS which will be rolled out across the mental health services a whole.

8. THE ISOFT SYSTEM

On pp.46/47 of the unpublished Mental Health Commission report cited at (1) above, it states,

To support the vision presented in "Health Information - a National Strategy" and consistently with the PCCC ICT Strategy, the HSE are currently configuring the iSoft package as the future integrated ICT Solution for the delivery of Health services for primary care, secondary care, and community care service providers across Ireland. The iSoft package includes a Mental Health Information module. A module release plan targeting a full implementation of the iSoft solution via four releases by 2008 is part of the terms and conditions agreed between the HSE and iSoft-Ireland Ltd.

In a press release from iSoft dated 21st January 2008, the following was stated

"Australia's largest listed specialist information technology company today announced that the project for an integrated patient management system in Ireland has achieved a key milestone with 26 acute, community and mental health hospitals now live.

The implementation programme is managed by Ireland's Health Service Executive (HSE) which is responsible for providing Health and Personal Social Services for everyone living in the Republic of Ireland.

All 26 hospitals are now using patient management software from IBA's ISOFT subsidiary - an important building block in the HSE's journey towards an electronic patient record.

The HSE's Cork University Hospital, one of the largest teaching hospitals in Ireland, is also implementing ISOFT's clinical information system, which will provide clinicians at the hospital with access to hospital-wide clinical order entry and the reporting of patients' diagnostic results at the point of care. ISOFT is now working with the HSE to extend the implementation of this system to other hospitals in Ireland.

In addition to these successful implementations, a number of outstanding contractual matters with the HSE have now been resolved, including settlement of outstanding payments due to ISOFT.

Damien McCallion, Head of ICT in HSE, said: "The initial deployment has dealt with some very serious risk issues and provided hospitals with a modern patient management system that facilitates integration with other systems within our hospitals and will ultimately provide a strong foundation in our desire to move towards an electronic patient record.

"The implementation of these new systems is a key enabler of our overall strategy which aims to use ICT to fundamentally support healthcare delivery."

Gary Cohen, Executive Chairman and CEO of IBA Health, said: "The HSE manages 52 acute hospitals along with a much greater number of non-acute hospitals - e.g. convalescence, elderly care, mental health. The resolution of contract issues and the successful completion of the implementation in 26 hospitals builds on a long-standing relationship we have with the HSE, paving the way for further roll-out of patient management systems and clinical systems across the HSE network of care facilities."

Throughout those parts of the HSE that have adopted the system, it is increasingly being referred to as PIMS (Patient Information Management System). It will have been live in a number of parts of the HSE for three years by October of this year. Operational areas include HSE South (who originally purchased the system as the Southern Health Board), parts of Dublin and the North East.

I've included some print outs from ISOFT's web site describing their i-patient manager (Appendix 10) as well as the Lorenzo system which is the Electronic Patient Record module alluded to above (Appendix 11).

The intention is that this will be rolled out to all hospitals (both general, psychiatric etc) and form the basis for an Electronic Patient Record for every patient across the country. In the north east, the system will be used as the master EPR for all psychiatric hospitals.

9. WHAT IS THE END RESULT LIKELY TO BE?

Given the number of systems that have existed separately either within former Health Boards, or nationally such as COMCAR and now WISDOM and iSOFT, the question has to be, what will the end result be?

In the light of the information at (6) above, it seems hard to see how our own Epex System (as well as others currently in use) can survive - or maintain its complete integrity.

Many of the features and modules of WISDOM replicate what exists within our own Epex system and to reproduce bullet points 1 and 3 from above.

- *WISDOM will create detailed, comprehensive records of patients within the mental health services structure. This will improve efficiency by making patient information readily available to both inpatient and community care services in a standard format on a single system.....so effectively, creating an EPR*
- *WISDOM will facilitate secure sharing of information between healthcare professionals by having a centralised patient database.....which will lead to information being centralised.*

Additionally, the purchase and implementation of the i-SOFT patient information management system (Lorenzo) within all hospitals (acute, psychiatric etc.) also raises questions. At the heart of this system is also an Electronic Patient Record and many of the features that are also available within the Epex System.

Basically, what appears to be developing here is a split between computerized/web based MHIS being used for psychiatric hospitals and community mental health services.

This is not a helpful or desirable situation.

As far as the creation of an Electronic Patient Record is concerned, there are bound to be considerable similarities in terms of the types of information collected (i.e. name, address, consultant, GP etc) and as a result, it should not be too difficult to create interfaces (or thin clients) which enable different systems to interface with each other and share (download/upload) information between each other. Such a recommendation was made in the Mental Health Commission report cited at (1) above. However, no two systems are completely similar and such a process nearly always involves both adding and editing to a record - which is time intensive.

Although the roll out of both WISDOM and LAZARUS will take time, it is clear that the move is towards centralization and standardization of systems, and as a result it seems highly likely that many of the individual software packages such as Epex, will be phased out and replaced. This has already happened in the case of many of the networked systems that were being used in Psychiatric Hospitals.