The Welsh Experience

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The views expressed today are my own and do not represent the views of my organization

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The Celtic Fringe endures
We are facing a perfect storm

- Declining resources -
- Aging population with increasing care needs – social, mental, physical
- Hospital emergency care has clogged up already with the frail elderly – age 88
- Little investment in primary care or community care compared to hospitals
- People die in the wrong place – in hospital
20-20 – vision of care

• Austerity issue – so what follows
• Patients and corers doing more for themselves
• Providing care closer to home
• Primary and community care
• Care means Social, psychological and physical
• Better care – safety, quality
• Hospital bed only when required
• Health economics element
Existing approach to information services Clinical Information Flow

- **Individual Health Record**
- **Welsh Clinical Portal**
- **GP Systems Lifelong record**
- **My Health Online**
- **Current Hospital Systems**
- **New Hospital/Community Services**
  - ORDERING
  - LIS- RADIS
  - LIMS
  - PRESCRIBING

Support unscheduled care

- E referrals discharges
- Welsh CC GATEWAY
- How Clinicians view Patients records in hospital & community

Patient access over the internet
This is what we have got to date in the Welsh Clinical Portal

Structured Data

Discharge documents relating to the Patient

- Test Orders and Results IH
- Radiology Results IH
- Medicine Record IH
- Myddin PAS IH
- Referral Systems WCCG
- Summary GP Record INPS EMIS

Single Identity for Patients - IBM EMPI

Single Identity for Staff - MS Active Directory

- Network Logicalis
- Network Security
- Data Centre BT IDC, In House
Where is the space to innovate?
Gap – How to support Innovation

Structured Data

Discharge documents relating to the Patient
- Test Orders and Results IH
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- Myrddin PAS IH
- Intersystems IMS
- FUJI PACS
- Pharmacy
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Support Innovation on the Welsh Platform

Structured Data
- Scheduling - Contacts, bookings planning, staff and patient calendars
- Secondary Use Services - SAIL
- Innovation Space

Structured Data
- A & E
- CISS with SC
- Diabetes
- Ophthalmology
- Phone First
- Etc.

Software Development Toolkit

Unstructured Data
- All documents relating to the Patient - WCRS
- Test Orders and Results IH
- Radiology Results IH
- Medicine Record IH
- MyddIn PAS IH
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Structured Data
- Intersystems IMS
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Network
- Logicalalis
- Security
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Welsh Clinical Portal

Documents and Clinical Communication
So how far have we got

- More modern infrastructure
- Overcome 20 years of technical lock in
- Service orientated architecture – clinical and applications layers
- Business focused, independent or organizational boundary
- Standardized the 4 things we need to
- Created a platform (SDK) for innovation
- Part way through a painful implementation

But its all a bit slow............................
Periodic Re Organizations & Reconfiguration

Reorganization Boundary

Reconfiguration Service (business)

Time Years

5 10 15 20

Bigger Is better Policy

Smaller Is better Policy

[Diagram showing a cyclical process with time in years and two policy options: Bigger Is better and Smaller Is better. Arrows indicate the periodic reorganization and reconfiguration services.]
So What?
The Great Firewall of Wales (PSBA)

The Public
The Citizen
The carer
The third sector

Public services
NHS, LA
Social care
Mental health
The Worlds changed

- Consumer communications devices
- Free-mium model of cloud service provision
- Low cost Apps
- Ubiquitous broadband to the home
- Always on connectivity (S&W, NI)
- Internet of things – monitoring
- Big data – predictive analytics
Can put the citizen at the Center in our networked world
Paradigm shift - we use the technology they have to communicate

- One global network, global services – no outside, no inside
- Mobile Always on – anytime, any place, anywhere
- Each of the 15 links can carry voice, video & data
- The security of each link can change depending on type of communication and citizens requirement for confidentiality
Health services

Social care

Voluntary services

MHOL
- Book appointments
- Order prescriptions
- Message GP
- Access to my GP record

My global communications
Used for Tele Health
- Video, telephone
- Email, Text, IM, HTTPS
- Secure social networks
- Instant messaging
- Communications HUB
- Tele devices

Health vault (Own store)
My copies of
- Care plans
- Contact details carers
- Tests
- Schedule
- Self monitoring etc

Internet – Ap Cymru Accredited sites
- Conditions
- Treatments
- Performance
- Directories

Undertake Tasks
Use my record
Access knowledge
Monitor myself

Apps to help me manage my health and social problems
Self monitoring - fitbit
Point of care
What is stopping us?

- New ICT is not under NHS control – clinical or IT
- Lack of understanding and trust in the technology
- Early use has been technically driven – solutions looking for problems – small scale
- Misunderstanding of risk management – holistic
- New ways into the service – just mean more work GPs, not shifted the work to patients
- Lack of investment in primary and community care to support scaled roll out
- Resources – headroom, crises, morale
Dealing with risk

- Uncertainty = anxiety = risk = cost
- It's about human contact – not being alone
- We deal with risk – by keeping a closer eye on the patient i.e. by staying in contact
  - This is true during a single episode
  - But it is also true over your lifetime and the reason that 70% of the cost of care is incurred during the last year of life – morbidity compression
  - At the present time the lack of alternatives means we admit put people in hospital beds

Opportunity to use technology to stay in touch – in terms of distance and time
The Visual Care Cycle

The basic risk management process in all care services

Individual at home or usual place of residence

When the service believes the risk has diminished to an acceptable level the individual return home or to their usual place of residence

24 hour care usually in hospital

If the individual or family feel they cannot manage the problem themselves and feel at risk they ring for help

Telephone advice or telephone consultation

If the professional feels they cannot manage the risk without seeing the individual they arrange a face to face assessment

Travel – 99.8% they citizen travel to the services

If after assessment the professional feels that there is residual risk and they cannot safely be returned home they arrange that the person stays in contact with the service 24 hours a day
What do we need?

1. Enable patients to use the technology they have to communicate with the service
2. Enable staff to use the technology the patient has to communicate with patients and with each other

But there is a problem with current way, security & Data centers are configured that will get in the way of delivering this change.
4 Strategic implications for ICT

1. Separate the care record services from the communications services – they require different approaches to privacy, confidentiality & security

2. Shrink the great firewall back to securing the care record data - the way other information services are delivered

3. Provision of the record data over secured link to mobile devices any where – including hospitals, estate & most importantly all homes in Wales

4. Shift the whole of human communications onto global cloud services available to the citizens
Trust

• Creation and maintenance on line
A useful Venn Diagram

Internet

Privacy
Do you or your patients want to share?

- Ethnicity
- Religion, morals
- Sexuality and your partner(s)
- Hobbies and Interests
- Political views
- Way you vote
- Police record
- Tax
- Travel history
- Education CV
- Multiple IDs
- Genetics
- Medical record – including STDs, MH etc
<table>
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<tbody>
<tr>
<td>Biotin</td>
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<td>Calcium</td>
<td></td>
</tr>
</tbody>
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[Dashboard] [Health Data] [Sources] [Medical ID]
You don't have to have done anything wrong, you simply have to eventually fall under suspicion from somebody, even by a wrong call, and then they can use the system to go back in time and scrutinise every decision you've ever made, every friend you've ever discussed something with, and attack you on that basis. To sort of derive suspicion from an innocent life and paint anyone in the context of a wrongdoer.
The Internet

WE WILL IDENTIFY YOU
WE WILL TRACK EVERYTHING YOU DO
WE WILL COLLECT INFORMATION ON ALL THE PEOPLE YOU COMMUNICATE WITH
WE WILL KEEP ALL YOUR DATA INDEFINITELY AND MAKE MULTIPLE COPIES OF IT
WE WILL CORRELATE YOUR DATA FROM ALL THE SOURCES AVAILABLE TO US
WE WILL SELL YOUR DATA TO WHOEVER WANTS TO PAY FOR IT
WE WILL PROVIDE YOU WITH SERVICES OF THE TYPE WE WISH TO AND FOR AS LONG AS WE WISH TO DO SO
WE WILL PROVIDE YOU WITH A FILTERED, SELECTIVE VIEW OF THE INFORMATION ON THE NET THAT WE BELIEVE WILL MAXIMISE OUR PROFIT AND MAY INTEREST YOU.
THE COPYRIGHT OF CONTENT YOU YOU CREATE ON OUR SERVICES WILL BE OWNED BY US
YOU WILL PAY US TO RENT ONLY, BUT WILL NOT BE OWN COPIES OF THE CONTENT WE DECIDE TO MAKE AVAILABLE (WE ARE NOT RESPONSIBLE FOR BACKWARD COMPATIBILITY)

WE WILL CHANGE THESE TERMS UNILATERALLY WITHOUT WARNING WHEN WE WANT TO

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