



Evidence For Reform / Where Research Meets Policy:
Session 2 - Expansion of care into the community



HSE Integrated Service Model

analytic support across strategy, operations and clinical domains

Dr Paul Kavanagh and Marian Keane, HSE
14th February 2023



Agenda

1

Background to Integrated Service Model

2

Key features of the Integrated Service Model

3

Evidence for expansion of care into community

4

Integrated Service Model and Evidence for Reform



Agenda

1

Background to Integrated Service Model

2

Key features of the Integrated Service Model

3

Evidence for expansion of care into community

4

Integrated Service Model and Evidence for Reform

Where were we?

Health Information
A National Strategy

- ▶ Safeguard the privacy and confidentiality of personal health information
- ▶ Ensure that health information systems are efficient and effective
- ▶ Promote the optimal use of health information
- ▶ Ensure the high quality of health information.

DEPARTMENT OF HEALTH AND CHILDREN
AN RÉINN SAÍNTE AGUS LEANAÍ

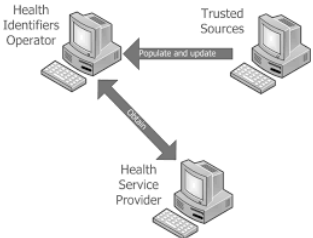


Carroll et al. BMC Public Health (2021) 21:1705
https://doi.org/10.1186/s12889-021-11717-5

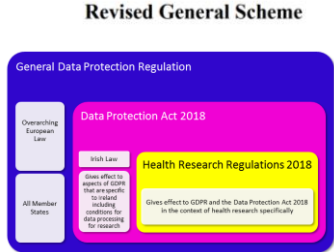
RESEARCH ARTICLE Open Access
A review of the inclusion of equity stratifiers for the measurement of health inequalities within health and social care data collections in Ireland

Christopher Carroll^{1*}, Katie Evans¹, Khalifa Elmusharaf², Patrick O'Donnell², Anne Dee¹, Dáimuid O'Donovan³ and Marie Casey³

BMC Public Health



HEALTH INFORMATION AND PATIENT SAFETY BILL



What happened?

BBC

Sign in

Home

News

Sport

Reel

Worklife

Travel

NEWS

Home | Coronavirus | Video | World | UK | Business | Tech | Science | Stories | Entertainment & Arts | Health

Asia | China | India

China pneumonia outbreak: Mystery virus probed in Wuhan

3 January

Coronavirus pandemic



World Health Organization

Europe

English Français Deutsch Pycckий

Search

Home | Health topics | Countries | Publications | Data and evidence | Media centre | About us

Health topics > Health emergencies > Coronavirus disease (COVID-19) outbreak > 2019-nCoV outbreak is an emergency of international concern

Coronavirus disease (COVID-19) outbreak

News

Latest updates

About the virus

Publications and technical guidance

Country information

Health System Response Monitor

Weekly surveillance report

Travelling countries

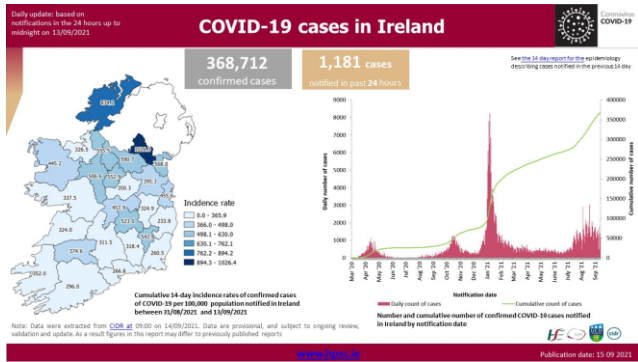
Statements

2019-nCoV outbreak is an emergency of international concern

21-01-2020

The WHO Director-General, Dr Tedros Adhanom Ghebreyesus, declared the novel coronavirus (2019-nCoV) outbreak a public health emergency of international concern (PHEIC) on 30 January 2020. This is the 6th time WHO has declared a PHEIC since the International Health Regulations (IHR) came into force in 2005.

The Director-General accepted the advice given by the IHR Emergency Committee, which had reconvened on 30 January. The advice includes temporary recommendations for China, other countries and the global community.

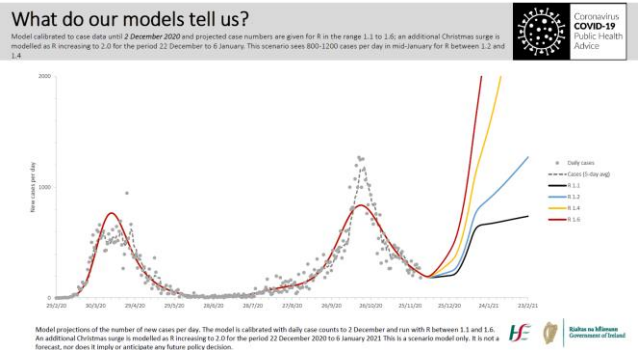


Download the COVID Tracker app at covidtracker.ie

Updated version now available in your Apple and Google play store

HE

Rialtas na hÉireann
Government of Ireland

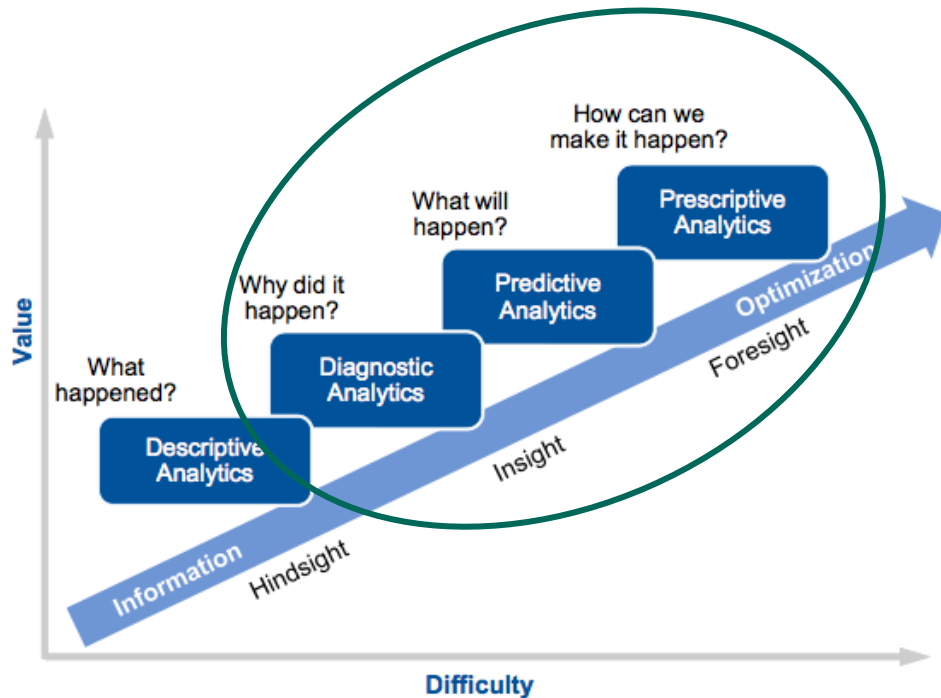


COVID-19 VACCINE

Public Health Service

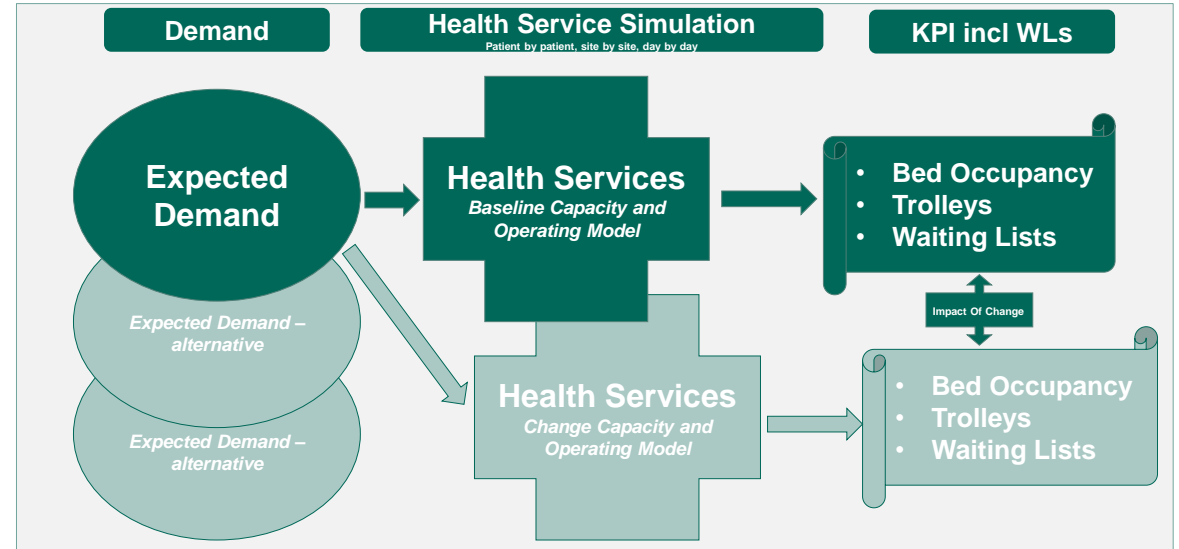
COVID-19 vaccination walk-in clinics

What happened?



Source: Gartner (March 2012)

HSE Integrated Service Model



- Build a **robust, data-driven and expert informed view of potential future demand** for health services across community and hospitals;
- **Delineate future challenges** by illustrating how health services will respond to future demand across selected key indicators, using a **discrete event simulation of individual patient journeys across integrated hospital and community pathways on a patient-by-patient, day-by-day and site-by-site level** which have been replicated using **actual health service data** cross-checked with **expert opinion**;
- **Assess the potential impact of measures to better meet these challenges** by repeating the discrete event simulation under different conditions of health service demand, capacity and configuration so as to inform decisions prior to implementation.



Agenda

1

Background to Integrated Service Model

2

Key features of the Integrated Service Model



















3

Evidence for expansion of care into community

4

Integrated Service Model and Evidence for Reform

Exemplar patient pathways – Reform and Expansion of Care into Community

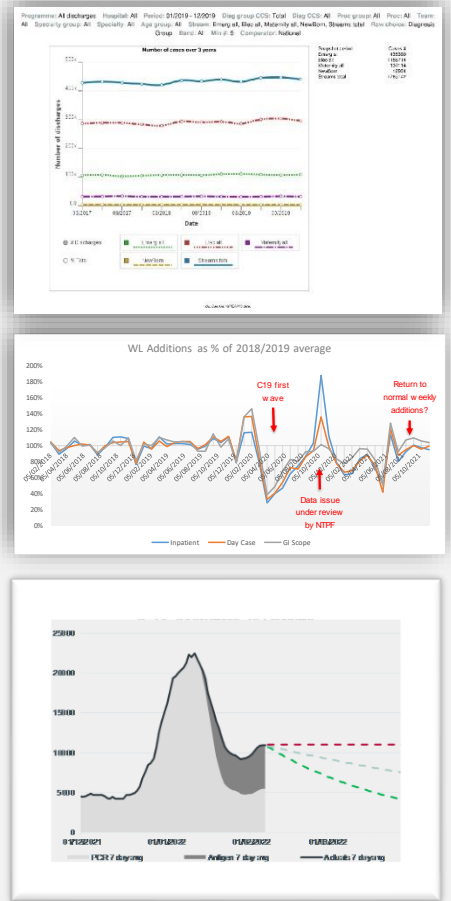
 Joe 84 Years	Joe has type 2 diabetes and heart failure and has been receiving HSE home help. After being on the waiting list for hip replacement surgery for 1 year, Joe is admitted to Galway University Hospital in July for elective surgery.				 Mary 74 Years	Mary has hypertension, angina and poorly controlled type 2 diabetes. She lives at home and visits her GP every few months. She has missed some OPD appointments because she had no transport. One day in January, Mary's family finds her collapsed and confused at home. They call an ambulance and Mary is brought to Beaumont hospital.			
 Joe's Journey through the health system	 Joe waits at home to be called in for surgery	 Joe is admitted for elective hip replacement surgery	 Joe is discharged to short stay rehabilitation in a nearby community hospital	 Joe is transferred home where he continues to receive HSE home help	 Mary's Journey through the health system	 Mary is transported to Beaumont hospital emergency department and diagnosed with a stroke	 Mary is to be admitted to an acute stroke unit	 Mary is admitted to acute stroke unit and spends 12 days. She is transferred to step down bed for rehabilitation	 Mary spends 30 days in rehabilitation and is discharged with home help
 ISM Data Input	NTPF HIPE Acute beds data	HIPE Acute beds data Other	Short Stay bed data Other Other	Other Other Other	 ISM Data Input	Local pharmacy data HIPE Other	NIMIS HIPE PAS	Other Acute Beds Data Other	Home Help Hours Rehab bed capacity Other
 ISM Scenarios (S) & Levers (L)	<ul style="list-style-type: none"> Low level of Covid in the community (S) Summer (S) HHH required due to reduced mobility (L) 	<ul style="list-style-type: none"> Ring-fenced elective clinical service (L) 	<ul style="list-style-type: none"> Availability of suitable rehabbed (L) 	<ul style="list-style-type: none"> Maintenance of same level of HHH (L) Increased access to CDM (L) 	 ISM Scenarios (S) & Levers (L)	<ul style="list-style-type: none"> High C-19 in the community (S) Winter scenario (S) 	<ul style="list-style-type: none"> Increased community diagnostics => downstream effect (L) Increased bespoke clinical services (L) 	<ul style="list-style-type: none"> Diagnostic services (L) Specific availability of stroke unit (clinical service) in acute hospital (L) Condition specific rehabilitation services (L) 	<ul style="list-style-type: none"> Increased HHH (L) Increased CDM in the community (L)
 Impact (I) / Benefit (B)	<ul style="list-style-type: none"> Lower acute bed occupancy (I) Reduced waiting lists (I) Reduced risk of admission (B) 	<ul style="list-style-type: none"> Reduced waiting lists (B) 	<ul style="list-style-type: none"> Reduced acute LOS (B) Reduced acute occupancy (B) Reduced ED waits (B) Reduced waiting lists (B) 	<ul style="list-style-type: none"> Reduced acute LOS (B) Reduced bed occupancy (B) Reduced waiting lists (B) Reduced admission risk (B) 	 Impact (I) / Benefit (B)	<ul style="list-style-type: none"> Long ED waits (I) High bed occupancy (I) Increasing waiting lists (I) 	<ul style="list-style-type: none"> Immediate access to hospital diagnostics (B) Increased hospital occupancy (I) Reduced LOS (B) 	<ul style="list-style-type: none"> Reduced acute LOS (B) Reduced bed occupancy (B) Reduced ED wait times (B) Reduced waiting lists (B) 	<ul style="list-style-type: none"> Reduced acute LOS (B) Reduced bed occupancy (B) Reduced ED wait times (B) Reduced waiting lists (B)

Observations

- Exemplar pathways are valid and reflect key trends in policies and plans
 - Focus on CDM and Older People
- Focus on community service for admission avoidance and egress

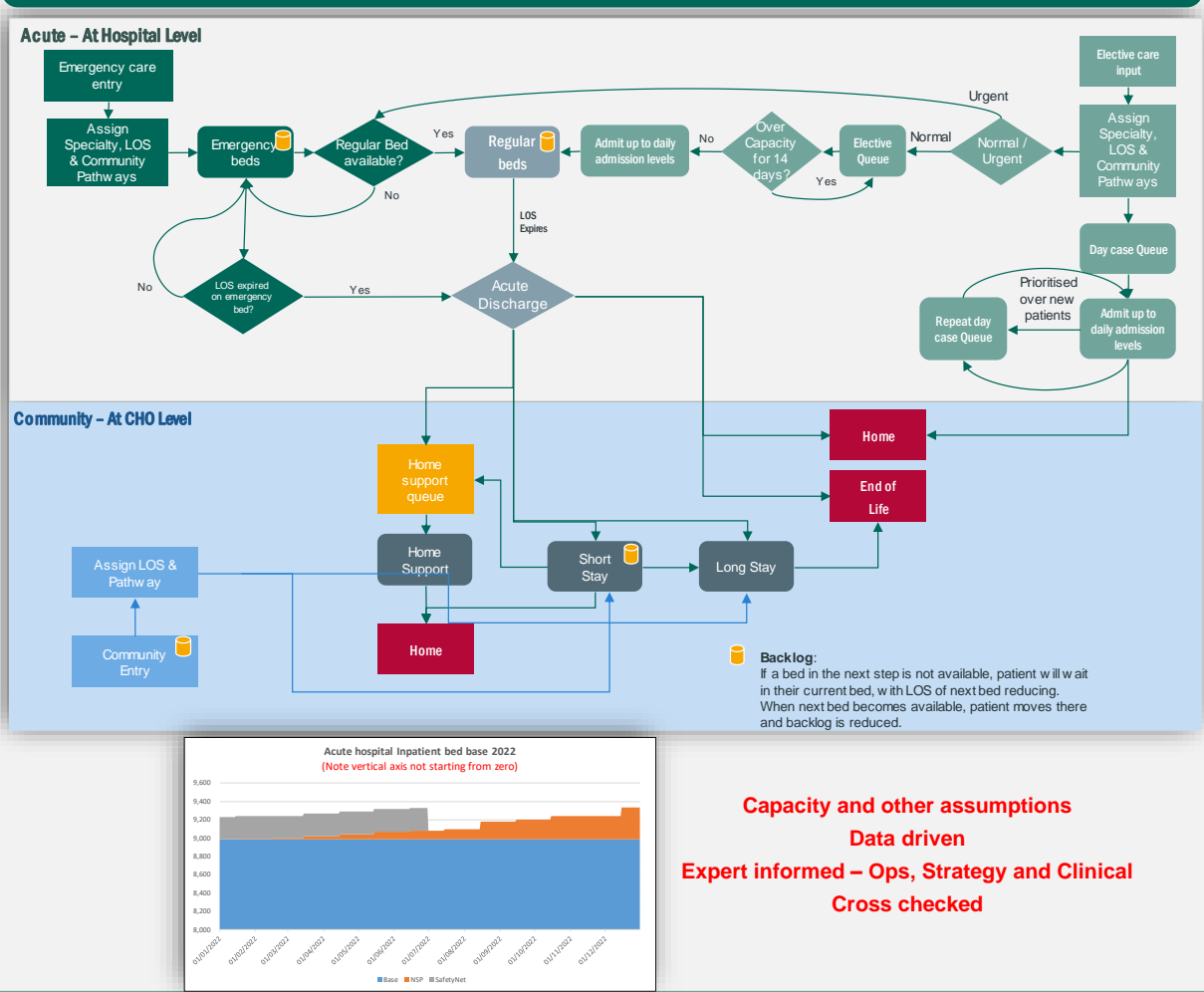
Integrated Service Model – Purpose and Objectives

Demand

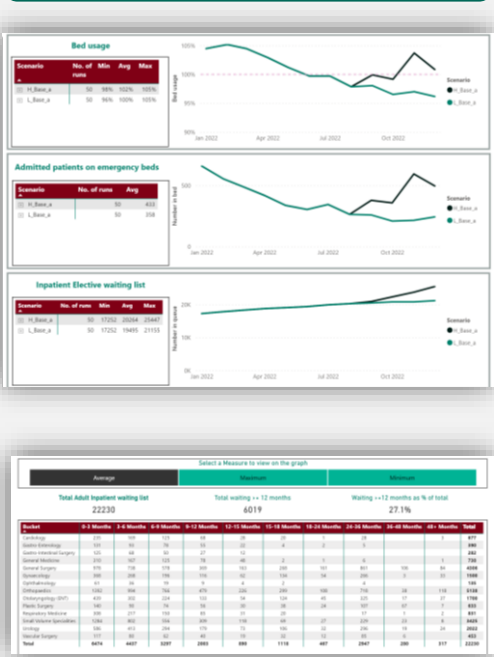


Health Service – Capacity and Op Model

Patient by patient, site by site, day by day



KPIs



IP and DC
National
Hospital Group
Clinical Group
Time Waiting/Breaches



Agenda

1

Background to Integrated Service Model

2

Key features of the Integrated Service Model

3

Evidence for expansion of care into community

4

Integrated Service Model and Evidence for Reform



ISM analytic support for expansion of care into community



Simulation building blocks



Demand & Capacity calibration

Pathways



Prioritisation Rules



Queues and re-routing





Sláintecare principles and modelling challenges (1)



Sláintecare Implementation Strategy &
Action Plan 2021 - 2023

Principle 01: Patient is Paramount

All care is planned and provided so that the patient/service user is paramount, ensuring appropriate care pathways and seamless transition backed-up by full patient record and information.

Modelling Challenge: **Which patient?**

- Where capacity is limited (and in the absence of joined-up patient records), how should competing sub-cohorts of patients, across acute and community settings, be prioritised?
- Can/should prioritisation rules change when the system is under increased pressure?



Sláintecare principles and modelling challenges (2)



Sláintecare Implementation Strategy &
Action Plan 2021 - 2023

Principle 02: Timely Access

To all health and social care according to medical need.

Modelling Challenge – Demand exceeding Capacity

- Demand: demographic pressure
- Capacity: resilience to COVID-19 and staffing challenges
- Measurement difficulties:
 - Future COVID-19 trajectories
 - Long-run assumptions: Healthy ageing hypotheses, informal carers
 - Unmet demand/need
 - Deflected demand (admission avoidance)
 - Community demand & waiting lists



Sláintecare principles and modelling challenges (3)



Sláintecare Implementation Strategy &
Action Plan 2021 - 2023

Principle 07: Engagement

Create a modern, responsive integrated public health system, comparable to other European countries, through building long-term public and political confidence in the delivery and implementation of this plan.

Modelling Challenge – **Trust & Confidence?**

- Will patients accept new community pathways?
- Should ring-fenced capacity be carved out for community initiatives?
- Can / should long-term priorities be set aside during periods of peak pressure?



Future state

“Integrated Care is a journey not a destination. We cannot fix the health system by strengthening the silos. More connections should be encouraged by the State to build trust, respect and agreed service change through integration of providers, care pathways and ICT systems. Innovation and change follows when this happens. This is the Carlow-Kilkenny story. This, we believe, is the best future for our health system.” (Dr Ronan Fawsitt and Dr Garry Courtney, Carlow/Kilkenny Hospital/GP Group)

Committee on the Future of Healthcare
Sláintecare Report, May 2017

Enablers

ICT, real-time data.

Unique patient identifier

Unique identifiers for all sites/wards, service providers

Linked data sets

Patient level data

Data sharing agreements (privates, voluntaries)

Evaluation and estimates of impact



Agenda

1

Background to Integrated Service Model

2

Key features of the Integrated Service Model

3

Evidence for expansion of care into community

4

Integrated Service Model and Evidence for Reform

What happened?



Coronavirus
COVID-19
Public Health
Advice

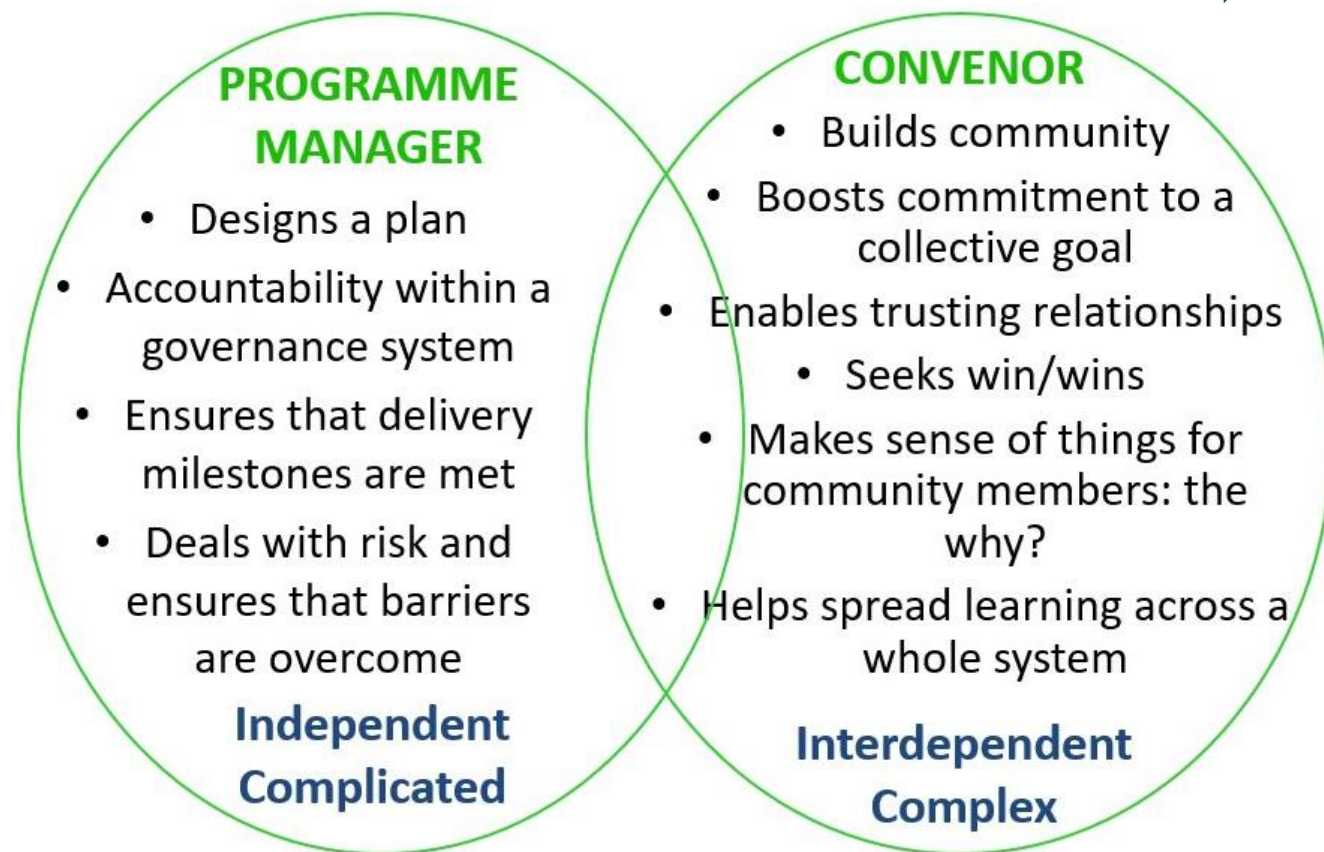
DATA AND INFORMATION MANAGEMENT TEAM MEETING

18th of October 2022 at 12 noon

AGENDA

1.	Update Science Foundation Ireland (SFI) Research Centre support projects – Collaboration with IEMAG
2.	Data Analytics and Capacity Modelling
3.	Data Governance
4.	Health Identifier Service
5.	Data Protection & Data Breaches
6.	COVID-19 Tracker 6.1 HSE COVID-19 Dataset Specification Management Process
7.	Reporting and Reviews
8.	HSE/CSO Statistical Liaison Group
9.	Ukraine Refugees Programme 9.1 Implementation of HSE COVID-19 Dataset Specification Management Process
10.	Any Other Business

From Silos to Systems



Leadership, governance, ways of working ... culture



Seirbhís Sláinte
Níos Fearr
á Forbairt

Building a
Better Health
Service

What next?



Minister Donnelly receives Cabinet approval to develop new health information legislation

Right information, right place, right time



Level 1 Basic	Level 2 Opportunistic	Level 3 Systematic	Level 4 Differentiating	Level 5 Transformational
<ul style="list-style-type: none">Data is not exploited, it is usedD&A is managed in silosPeople argue about whose data is correctAnalysis is ad hocSpreadsheet and information firefightingTransactional	<ul style="list-style-type: none">IT attempts to formalize information availability requirementsProgress is hampered by culture; inconsistent incentivesOrganizational barriers and lack of leadershipStrategy is over 100 pages; not business-relevantData quality and insight efforts, but still in silos	<ul style="list-style-type: none">Different content types are still treated differentlyStrategy and vision formed (five pages)Agile emergesExogenous data sources are readily integratedBusiness executives become D&A champions	<ul style="list-style-type: none">Executives champion and communicate best practicesBusiness-led/ driven, with CDOD&A is an indispensable fuel for performance and innovation, and linked across programsProgram mgmt.. mentality for ongoing synergyLink to outcome and data used for ROI	<ul style="list-style-type: none">D&A is central to business strategyData value influences investmentsStrategy and execution aligned and continually improvedOutside-in perspectiveCDO sits on board

D&A = data and analytics; ROI = return on investment

© 2017 Gartner, Inc.

Spending 33-50% of EU benchmarks
Capacity, Capability, Culture



Seirbhís Sláinte
Níos Fearr
á Forbairt

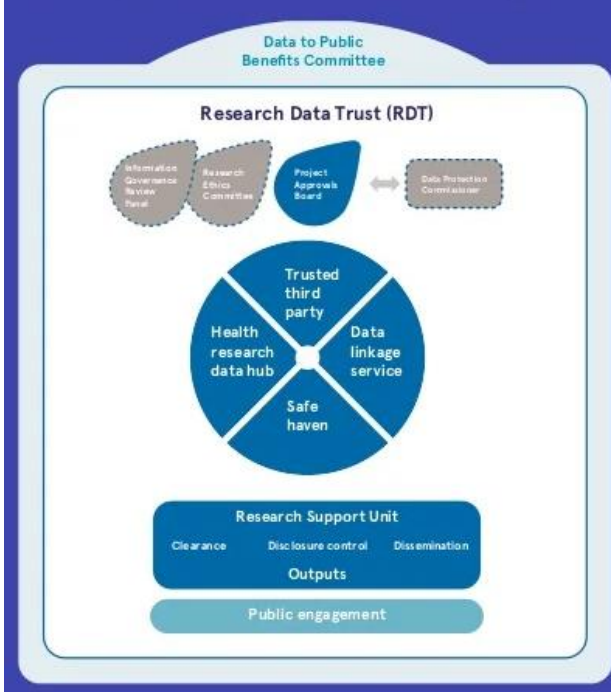
Building a
Better Health
Service

What next?

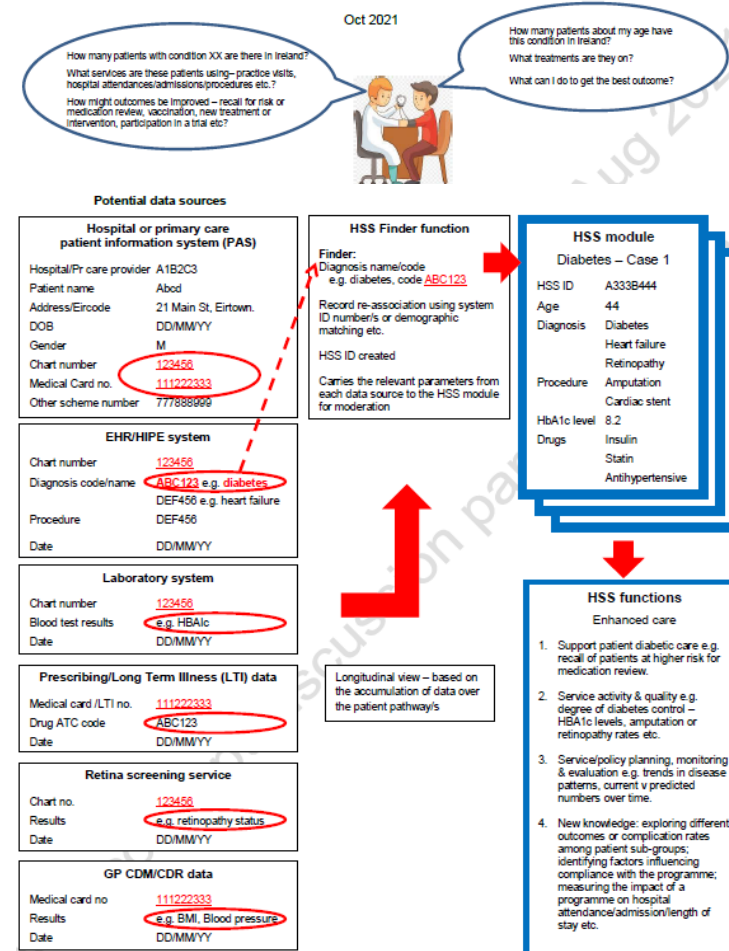


The DASSL model

The key elements of the DASSL model are outlined here. Their configuration requires further discussion and agreement.



Health Support System (HSS) Concept & design blueprint



From Silos to Systems



Seirbhís Sláinte
Níos Fearr
á Forbairt

Building a
Better Health
Service

Final thought



Hope is not optimism, which expects things to turn out well, but something rooted in the conviction that there is good worth working for.

— Seamus Heaney —

Not just optimistic – hopeful because recent experience has built our conviction that evidence at the centre of health system decision-making is used well is worth working for

Acknowledgements

- HSE ISM programme team
- ISM Governance Group
- National Health Intelligence Unit
- DAIM