

Faculty of Public Health Medicine (RCPI) Winter Scientific Meeting 2024

RCPI, 6 Kildare Street, Dublin 2 on Wednesday 4th December, 2024.

The EU AI Act - an impact assessment for healthcare in Ireland.

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The Abstract:

The EU Artificial Intelligence (AI) Act aims to regulate the use of AI within the European Union (EU), it was first signed into legislation in July 2024.

An EU AI Act impact assessment is a process of evaluating the potential implications of this European legal framework for artificial intelligence (AI). An EU AI Act impact assessment was undertaken from the perspective of a deployer of AI to explore the AI governance requirements.

The assessment highlights the obligations of the deployer and the need to consider the main governance principles ((i) governance and accountability, ii) human oversight, iii) fairness and ethics alignment, iv) data management, v) transparency enhancement and vi) privacy and cybersecurity) for implementation into AI governance programmes while being guided by the seven non-binding ethical principles for AI.

Given the rapid pace at which AI continues to evolve at and its profound implications, the proactive development and implementation of AI governance programs is key in order to maximise the use of AI.

HIV treatment audit and progress towards UNAIDS 95-95-95 targets

Author: Kate O'Donnell¹

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Co-Author: Caroline Hurley²,

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Co-Author: Fiona Lyons² on behalf of the HIV Treatment Audit Steering Group.

The Abstract

Treatment of HIV is a priority public health intervention, both for individuals and in preventing spread of infection. UNAIDS has set targets for countries to achieve this. A HIV treatment audit was undertaken to measure if these targets are being met.

All public HIV services (adult and paediatric) provided anonymous disaggregate data on attendances during 2022. Demographics and HIV treatment outcomes were described and estimates of total numbers living with HIV (known and unknown) were modelled.

Just over 7,000 people were in HIV care in 2022, with an ageing and ethnically diverse profile. There were very high levels of treatment coverage (>98% of those in care) and viral suppression (>98% of those on treatment). Overall, 88% (95% CI: 75% to >98%) achieved viral suppression. While overall targets were met, some groups, most notably, people who inject drugs (PWID) had lower levels of viral suppression.

While the overall results are very good, some people living with HIV are yet to achieve the full benefits of treatment and viral suppression and further work is required to meet the needs of those people.

MMR Vaccine Catch-up: Measles outbreak response in a Primary School

Topic / Dept: *Public Health HSE Dublin and North-East*

Author: A Moore

Co Author: A Varley

Co Author: M de Paor

Co Author: T Madden

Co Author: G Fitzpatrick

Co Author:

The Abstract:

In 2024, there has been a national rise in measles cases. At the time of reporting, 61/136 (45%)¹ of all confirmed cases were notified to Public Health Dublin and North East (PH DNE). This includes 10 outbreaks, one of which occurred in a primary school in the North East.

On 25/09/2024, PH DNE declared a measles outbreak at the school after three confirmed cases were reported across two class groups. The school has a student population of 187, representing 29 nationalities. Among the students, 20% are Irish Travellers and 10% are Romanian. The school's reported MMR (Measles, Mumps, and Rubella) vaccination rate was 56%.

An outbreak control team was formed, and the school agreed to implement a catch-up MMR vaccination program as part of the control measures. The National Ambulance Service (NAS) provided support, delivering 34 vaccines to the student population, raising the school's MMR vaccination coverage to 74%.

Strengths included swift response from PHDNE, close collaboration with community health workers and the pre-availability of information materials in several languages. Challenges in executing the catch-up program included maintaining the cold chain, ambiguity about consent forms, and appropriate vaccination record keeping.

Measuring the hidden work of an Area Health Protection Team through the development of a novel Health Protection Impact Log, HSE South West

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Co Author: Dr Anne Sheahan¹, Area Director of Public Health,

Co Author: Dr Peter Barrett¹, Consultant in Public Health Medicine,

The Abstract:

An Acute Health Protection Duty Room was established in HSE South West in October 2022. After its first year in operation, the Duty Room model was evaluated. The highest priority recommendation was to improve measurement of regional health protection workload and impact.

A 'Health Protection Impact Log' (HPIL) was developed to more comprehensively quantify the public health actions taken by the Area Health Protection multidisciplinary team (MDT). The HPIL was implemented in May 2024 and analysis on the first 3 months of use was conducted.

There were 236 cases, spanning 26 different diseases, requiring intensive Public Health follow-up in the 3 month period. Of these cases, 32 (14%) were excluded from school/work, 60 (25%) were recommended vaccination, 11 (5%) required micro-clearance. These cases generated 402 close contacts; of these contacts, 26 (7%) were excluded from school/work, 92 (22%) were recommended vaccination, 13 (3%) required micro-clearance, and 56 (14%) required post-exposure prophylaxis with antibiotics.

The HPIL routinely quantifies much of the "hidden workload" of Area Health Protection MDTs by capturing summary data on cases and close contacts in real time in the absence of a Case and Incident Management system.

Patient, process and cost outcomes following the roll-out of Community Pulmonary Rehabilitation in HSE Mid West: A service evaluation

Author: Rachel Mc Namara

Co-Author: Maire Curran

Co-Author: Brian Fitzgibbon

Co-Author: Sarah Cunneen

Co-Author: Josie Dillon

Co-Author: Patricia O'Rourke

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The Abstract

Ireland has one of the highest admission rates for Chronic Obstructive Pulmonary Disease (COPD) in the OECD¹. Pulmonary rehabilitation (PR) plays a crucial role in the management of COPD.

The aim of this evaluation was to examine how the Community PR service in HSE Mid West is meeting its objectives with regards to patient, process and cost outcomes. A retrospective pre-post intervention study design was used to compare admission rates among enrollees with COPD in the 12 months before and after PR intervention. Secondary outcomes included exercise tolerance, disease control and costs.

Outcome data for all 109 PR enrollees with COPD in 2022 were included. Fifty-seven percent (n=62) saw the programme through to completion. There was no significant difference in hospital admissions pre- and post- PR programme (p=0.3). Significant improvements were seen in dyspnoea scores (p<0.01), lower limb strength (p<0.01) and walking distance (p<0.01). Cost evaluation is ongoing.

Community PR in HSE Mid West is meeting several of its aims with regards to patient outcomes but did not produce a significant reduction in admissions in this cohort. Recommendations have emerged from the service evaluation regarding data collection and adherence support.

Using Intensive Care Unit Bed Information System (ICU-BIS) data to inform public health policy

Topic / Dept: Health Intelligence

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Co Author: Carol Pentony

Co Author: Brid Moran

Co Author: Prof Rory Dwyer

Co Author: Anna Carrigan

The Abstract:

The Intensive Care Unit Bed Information System (ICU-BIS) managed by the National Office of Clinical Audit is a web-based application on HSE network provides real-time data on ICU bed occupancy and availability in adult, paediatric and private hospitals. During the pandemic it tracked COVID activity data.

In 2021 ICU-BIS data helped trigger a vaccination program for pregnant women increasing vaccine uptake and reducing COVID related admissions. Informed travel restrictions and ethnic-specific public messaging campaigns. Data was used for pandemic prediction and modelling, influencing public policy. Data helped identify ICUs under pressure, facilitating life-saving interhospital transfers. Originally designed to provide information on bed availability, it rapidly evolved into a vital tool for shaping public policy.

Last winter data revealed a high proportion of infants < 1yr admitted to Paediatric ICUs with RSV. In response the DOH launched an immunisation program for babies born after September 1st. This winter data will be collected to assess the program's effectiveness with new data collection on flu and RSV in adult ICUs. Delivers real-time data on ICU admissions offering insight into respiratory virus outbreaks in community.

Strengthening Public Health – Contracting and Implementing a New Infectious Disease Outbreak, Case management, Incident Management and Surveillance System (OCIMS)

Author: Elaine Brabazon¹,

Co-Author: Louise Cullen¹,

Co-Author: Jennifer Doyle¹

Co-Author: Lois O'Connor¹ on behalf of OCIMS Steering & Working Groups

1. HSE Health Protection Surveillance Centre (HPSC), Ireland

The Abstract

Key objectives of the National Health Protection Strategy are to strengthen surveillance and epidemiological analysis and standardise approaches to prevention and response. A new clinical information and surveillance system (OCIMS) is a key enabler of these goals. The system will support improved patient care by digitisation of processes for management of cases, contacts, outbreaks, incidents and enquiries and provide an integrated national all hazards health protection system for public health.

Since April 2023 the OCIMS Steering and Working Groups with representation from Regional and National Public Health and HSE Technology and Transformation have been working closely to progress the procurement and implementation of this new health protection system.

Leadership and vision, stakeholder support and engagement, integration and streamlined processes will be key factors in the successful implementation of this project. Parallel workstreams include the planned sunsetting of the CIDR system and engagement with the COVID-19 Contact Management Program to enable next pandemic readiness.

We describe work which has been undertaken on user requirements, procurement, system ecosystem and design for OCIMS.

An Evaluation of the Implementation of Ireland's National Climate Change Sectoral Adaptation Plan for Health (2019 - 2024) with a Focus on Adaptation to Severe Weather Events.

Topic / Dept: Health Protection

Department of Public Health, West North West (Area F), Health Service Executive, Merlin Park University Hospital, Galway.

Author: Dr Kathleen Mc Donnell, Department of Public Health, West North West (Area F), Health Service Executive, Merlin Park University Hospital, Galway.

Co Author: Dr Bianca van Bavel, Insight Centre for Data Analytics, School of Health Sciences, University of Galway, Galway.

Co Author: Dr Ina Kelly, Health Security Programme, National Health Protection Office, Health Service Executive, Dublin.

The Abstract:

Ireland's Health Climate Change Sectoral Adaptation Plan (HCCSAP), published in 2019, guides the national health service regarding adapting to climate change. The next round of climate change adaptation planning commences at the end of 2024. An evaluation of the HCCSAP's implementation in the Health Service Executive (HSE) was carried out to inform this planning process.

Qualitative key informant semi-structured interviews were performed. Thematic analysis was carried out on the data using NVivo software.

Interviews were conducted with seven key stakeholders. Key information identified included: the HCCSAP was not fully implemented; sufficient resources, specific and measurable actions and formal health service learning were lacking; there are gaps regarding availability of climate change epidemiological data, staff awareness of the HCCSAP and cross-sectoral collaboration.

Key recommendations from this evaluation included: There is a need for HCCSAP formal funding streams, inclusion of HCCSAP's resource requirement in the HSE's National Service Plan 2025, further cross-sectoral collaboration, formal sharing learning processes, specific and measurable actions and targeted communication about climate change adaptation with staff.

A communication plan to increase uptake of PPV23 vaccine.

Topic / Dept: Health Service Improvement / National immunisation Office

Author: Dr Alice Quinn

Co Author: Anita Ghafoor Butt

Co Author: Tich Matsweru

Co Author: Mukesh Patil

The Abstract:

From September 2023 to July 2024, the NIO implemented a communication campaign aimed at increasing PPV23 vaccine uptake in those aged 65+ years and those aged 2-64 years in risk groups. The campaign included a letter circulated to GPs at the beginning of the influenza season, an NIO bulletin article, and display leaflets sent to 1,200 GP practices. In January 2024, the NIO ran one national PPV23 advertisement targeted to 50-65 years and 5 geo targeted advertisements to those aged 65+ years on Facebook and Instagram over 4 weeks in 5 counties with low PPV23 uptake and a letter was sent to stakeholders with a PPV23 partner pack to share on their networks. In February 2024, the NIO hosted a PPV23 vaccine webinar. We described social media engagement metrics (impressions, click rate), and we extracted PPV23 uptake from the PPV23 dashboard. Social media metrics indicated successful online engagement. This campaign coincided with the start of chronic disease management in GP practices in late 2023. Further study is needed to see if communication efforts increase vaccine uptake.

An evaluation of competencies in Infectious Disease Epidemiology delivered in a Public Health Programme using the ECDC Self-assessment tool 2022

Topic / Dept: Health Protection

Author: Astrid Weidenhammer

Co Author: Mary Codd

The Abstract:

The COVID-19 pandemic revealed the need for a skilled workforce in applied infectious disease epidemiology (AIDE). Public Health Master programmes (MPH) provide a foundation for capacity building. The aim of the study was to evaluate core competencies (CC) in AIDE acquired by students enrolled in an MPH course in Ireland.

A cross-sectional study was conducted between 09/2023 and 04/2024 assessing CC levels in AIDE in 38 students enrolled in the University College Dublin MPH programme pre- and post-course completion using a questionnaire based on the ECDC self-assessment tool for AIDE CC(1). Descriptive statistics and Wilcoxon signed-rank test were computed. Cronbach's alpha was used to evaluate the reliability of the tool.

Data analysis showed that students achieved a medium level of proficiency for 2/3 and higher level for 1/3 of the competencies, with a significant gain of proficiency in 90/91 skills. A Cronbach's alpha of >0.9 shows a high instrument reliability.

Findings suggests that an MPH programme can deliver a comprehensive curriculum in AIDE with weaker areas identified indicating a potential need to revise the current curriculum. The questionnaire used is a reliable tool to self-assess proficiency levels in AIDE.

Verotoxigenic Escherichia coli in the Mid-West – A Retrospective Analysis.

Author: Claire Sharkey

Co-Author: Breda cosgrove

The Abstract

Aim: To examine the burden of verotoxigenic Escherichia coli (VTEC) in the Mid-West over a 24-month period.

Background: Enhanced surveillance is performed on all VTEC cases in Ireland. The risk of onward VTEC transmission is assessed by categorising cases into risk groups. Cases in a risk group require microbiological clearance in the form of two negative stool samples before returning to a work or care setting. Waiting for clearance can often be lengthy and socioeconomically challenging.

Methods: This retrospective secondary data analysis examined all VTEC cases between October 2022-2024 in the region using local infectious disease logs. iLab laboratory system was used to identify time from first positive sample to second microbiologically clear sample. R was used for all statistical analyses.

Results: There were 229 PCR positive VTEC cases in a 24-month period. 36.68% of cases (84/229) were in a risk group. The median time to clearance was 20 days (IQR:12 to 29.25) with 64.29% (54/84) of cases requiring more than 14 days. 29.76% (25/84) required over four weeks. 10.71% (9/84) required over six weeks.

Conclusion: National guidelines for prolonged shedding are urgently needed to avoid lengthy absences from work and childcare.

Promotion of Antenatal Pertussis Vaccination During a National Outbreak

Topic/Dept: Health Protection

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The Abstract

Ireland is experiencing its largest pertussis outbreak since acellular vaccination introduction in 1996, with 495 cases to week 40, 2024. Infants are most at risk of severe pertussis infection. Antenatal vaccination bridges immunity until infant vaccination begins at 2 months of age. Uptake rates of antenatal pertussis vaccination are not measured in Ireland.

To date, 23 cases of infantile pertussis were notified in Dublin and South East; 17 were hospitalised; only 30% of mothers reported antenatal vaccination. Of concern, 8 cases of infantile pertussis were notified among the travelling community, with 0% of mothers vaccinated in pregnancy.

We promoted vaccination with rapid alerts to regional GPs and obstetricians, media communications and interviews. An outbreak control meeting included traveller community health workers. Awareness raising sessions focussing on antenatal vaccination identified that women are not aware of or routinely offered vaccination.

Pertussis causes life-threatening disease in young infants. Antenatal vaccination confers vital immunity in the earliest months of life and our current system is inadequate and inequitable. We call for urgent implementation of a formal antenatal pertussis vaccination programme.

Diversity Of Blood Antigens Phenotypes in Irish Blood Donors

Topic / Dept:

¹School of Public Health, Physiotherapy and Sports Science, University College Dublin

²Irish Blood Transfusion Service

Author: Oluwatosin Abidemi Adebayo¹

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The Abstract:

As Ireland's population becomes more multi-cultural, understanding the diversity of blood group antigens is crucial for compatibility of donor and recipient blood. This study aim was to analyse the diversity and distribution of blood antigen phenotypes among blood donors.

The study population comprised 29,126 white and 164 non-white whole blood donors, reflecting 3 months donations collected by the Irish Blood Transfusion Service. SPSS V 29 was used.

The donor population is predominately White (99.4%); with 52.8% aged 40-59. O Positive was the most common blood group (40.5%), followed by A Positive (25%). Blood group O was prevalent in both White (53.8%) and Black (52.9%) populations; group A was predominant in donors of Asian ancestry (≥40%). Among the 164 non-White donors, 40% were phenotyped, with the following antigen-negative rates: Fya (69.0%), Fyb (86.7%), Jka (33.3%), Jkb (43.8%), M (44.0%), S (78.7%), s (33.3%).

The results underscore the necessity of extended antigen testing of blood donors to support optimum matching between donors and recipients in an increasingly diverse population.

Traveller engagement with national cancer screening programmes and identification of the current barriers and facilitators

Topic / Dept:

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Co Author: Triona McCarthy⁵

Co Author: Maria McEnery⁵

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Co Author: Patricia Fox²

The Abstract:

Ethnicity data on screening uptake in Ireland is lacking. This study aimed to determine participation of Travellers in three national population-based cancer screening programmes and identify barriers and facilitators.

A face-to-face survey by Travellers with Travellers adapted from the National Cancer Control Programme's 2022 National Survey on Cancer Awareness (1), was conducted by Traveller Community Health Workers (TCHW).

483 Travellers participated; 86% of 73 eligible for BreastCheck received invitations; attendance was 75%; i.e. 84% of those who received an invitation. For CervicalCheck 74% of 191 eligible received an invitation and 65% attended, i.e. of those who received invitations 88% had attended at least once. 28% (n=10) of 36 eligible for BowelScreen said they received invitations; 60% of those receiving an invitation participated i.e. 17% (n=6) of eligible. The main barriers were embarrassment (21%), fear of results (19%) and no invitation (18%). The main facilitators were talking to TCHWs and invitations.

Travellers are engaging with screening but face barriers accessing mainstream health services; universal ethnic identifiers are needed to monitor access, participation and outcomes in cancer screening.

Measles cluster in Dublin 15

Topic / Dept: *Public Health HSE Dublin and North-East*

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Abstract

In 2024, there has been a significant rise in measles nationally. The first confirmed case reported to Public Health Dublin & North East (PH DNE) was in March 2024. Over the course of the following month there were 6 lab confirmed cases within the Dublin 15 area, including 1 family outbreak. This cluster was noted and investigated by the department.

Extensive source investigations revealed no epidemiological link between cases, with the exception of the family outbreak. No travel history was reported in any case. The genome sequencing of the cases showed they were closely linked on the phylogenetic tree and suggested a new importation from Europe. This indicated the first cases of community transmission within the DNE region.

The vaccination status of the cases was a mix of partial and no MMR vaccination, and the age range was between 2 and 28 years. Several health care settings, transportation modes, and a large play centre were implicated during the infectious periods.

Strengths include collaboration with (Infection Prevention Control) IPC teams in the acute setting, and prompt isolation by health care staff helped to minimise contacts generated. Language barriers and use of translators with initial cases proved challenging.

Smoking and vaping: prevalence and awareness of cancer risk among Irish Travellers

Topic / Dept:

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The Abstract:

Census 2022 showed a smoking rate of 16% in Travellers but there are no recent data on vaping prevalence. This study sought to determine smoking and vaping prevalence and awareness of smoking and passive smoking as cancer risks among Travellers.

A face-to-face survey by and with Travellers, adapted from the National Cancer Control Programme's (NCCP) 2022 National Survey on Cancer Awareness (1), was conducted by Traveller Community Health workers in partnership with Pavee Point Traveller and Roma Centre.

The number of participants (n=483) exceeded the anticipated sample size. Smoking prevalence was 36% (28% daily and 8% occasional). Smoking was higher in males than females (44% vs 32%; $p<0.05$). 15% were ex-smokers. 12% vaped daily; 10% had previously vaped. Vaping was highest in the 18-24 age group (18%); 9-11% in older groups. Smoking (88%) and passive smoking (39%) were spontaneously noted as risk factors for cancer, and a further 8%/29% when prompted. 70% agreed *"Being exposed to other people's smoke can cause cancer."*

The higher smoking/vaping rates than the general population need targeted and mainstreaming support. Spontaneous recognition of passive smoking risk is higher than reported in the NCCP general survey.

Online availability of Selective Androgen Receptor Modulators (SARMS): A growing public health concern.

Topic/Dept: Health and Wellbeing

Author: Brian Keating

The Abstract

SARMS are a class of androgen receptor ligands used recreationally to stimulate muscle growth. In contrast to other performance enhancing drugs, they can be taken orally, increasing their usability. Studies have raised safety concerns, including drug-induced liver injury, tendon rupture and rhabdomyolysis. In Ireland there is no legislation restricting their sale however the FSAI has designated them not safe for human consumption. Therefore in Ireland they can legally be purchased as research chemicals.

We performed web-based cross-sectional study to explore the online availability of SARMS in Ireland. Multiple searches were performed using a selection of Keywords on the Google search engine. Websites were screened and data was collected on whether delivery was available to Ireland, whether the products were advertised for oral consumption, and if any warnings were attached.

15 online retailers selling SARMS who delivered to Ireland were identified. Of these 93% sold oral SARMS products, in capsule or flavoured fluid form. 33% of online retailers specified that these products were for research purposes only, however all of these websites sold the orally available products and all marketed them as performance enhancing drugs.

Interventions to address parental vaccine hesitancy: A systematic review

Topic/Dept: Health Protection

Author: Brian Keating

The Abstract

Vaccine hesitancy is incredibly difficult to combat and despite a large amount of recent research on the topic, relatively few studies use true vaccine rates as an outcome measure. This is despite evidence that soft markers of vaccine hesitancy may not accurately reflect the effect of interventions on vaccine rates.

We identified interventions aimed at increasing childhood vaccination rates through combatting vaccine hesitancy.

We performed a systematic review to identify studies which evaluated a vaccine hesitancy intervention. Studies were screened and included if they targeted routine childhood immunisations and used true vaccination rates as a primary outcome.

8 studies met inclusion criteria and were included in the analysis. 3 of these evaluated a Motivational Interviewing (MI) based intervention; 2 involved web-based interventions; 1 involved previsit screening; 1 targeted staff education; and the last evaluated the impact of financial policies on vaccination rates. The effects of the interventions were marginal, with MI interventions showing promise if done in an environment without time-pressures. Pre-visit screening had nil positive effect and may even have had a negative impact on vaccine rates.

Sociodemographic Determinants of Awareness of Overweight/Obesity as a Cancer Risk Factor.

Topic / Dept: Health Improvement

Author: Dr Aoife O’Connell

Co Author: Dr Heather Burns

Co Author: Professor Kathleen Bennett

Abstract:

This research determined awareness of obesity as a cancer risk factor in Ireland, and whether sociodemographic factors impact awareness.

Data was obtained from the National Survey of Cancer Awareness and Attitudes. Statistical analysis was performed using SPSS. Univariate and multivariable logistic regression analyses were performed.

Unprompted awareness of obesity as a cancer risk in Ireland is 25.4%. When prompted awareness is included, it is 72%. Education is the only significant sociodemographic determinant of unprompted awareness, but prompted/unprompted awareness combined is associated with educational level, employment status, ethnicity. Those with tertiary education are more likely to recognise the risk compared to primary education only (aOR 1.54 (1.07,2.23) $P=0.02$). Students/unemployed are half as likely to recognise the risk, compared to employed (aOR 0.51(0.37,0.75) $P<0.001$), (aOR 0.53(0.37,0.75) $P<0.001$). “Other Irish”, and Black/Asian/Mixed ethnicities are less likely to recognise the association compared to “White Irish”, (aOR 0.72(0.53,0.99) $P=0.04$), (aOR= 0.67(0.46,0.97) $P=0.03$).

This research has identified areas for universal and targeted interventions, to increase awareness of this cancer risk.

Caring for Carers: A National Study of Health Care Assistants and Professional Carers in Ireland, 2024

Topic / Dept:

Health Service Improvement / UCD School of Public Health, Physiotherapy and Sports Science

Author: Parnian Jalili; UCD School of Public Health, Physiotherapy and Sports Science

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Co Author: Mary B Codd; UCD School of Public Health, Physiotherapy and Sports Science

The Abstract:

The long-term residential care (LTRC) sector in Ireland relies heavily on Health Care Assistants and Carers (HCAs). This is a diverse workforce often relying on non-national workers with varying levels of education. In 2022 an estimated 22% were non-national. Their plight became evident during COVID-19 impacting profoundly on LTRC.

An ethically approved cross-sectional study of members of 'Care Assistance Ireland' was conducted using validated instruments to assess career satisfaction and employability: Maastricht Instrument for Sustainable Employability (MAISE); Utrecht Work Engagement Scale (UWES); and Minnesota Career Satisfaction Survey (MCSS). Descriptive and comparative statistical tests were used for analysis.

Thus far, 435 responses have been received. Of respondents, 92% are female; 65% are ≥45 years; 82% have Level 5 qualification. Results from MCSS and UWES show generally good career satisfaction and work engagement while MAISE shows a desire for changes that could contribute to sustainable employability.

These findings reinforce the importance of training, job security and wellbeing standards for LTRC sector workers. It also highlights the older workforce and the need to invest in younger carers.

TB Contact Tracing in a Regional Irish Prison – A Public Health perspective

Topic / Dept: Health Protection

Author: Dr Emma Kearney

Co Author: Dr Grace McHugh

Co-Author: Sinead O' Reilly, RGN

Co-Author: Sinead Burke, RGN

Co Author: Dr Kenneth Beatty

The Abstract:

Ireland is considered a low tuberculosis (TB) burden country; however vulnerable and underserved populations remain at risk of infection. In December 2023, the Department of Public Health HSE Mid West (DPHMW) was notified of a case of pulmonary TB in a former prisoner from the region. This paper outlines the contact tracing, screening and management of contacts, and the lessons learned. DPHMW lead a regional incident management team with representation from the Irish Prison Service and management from the prison. The case was deemed highly infectious, and a concentric circle approach was used to design a contact tracing programme. 38 prisoners and 5 prison officers were screened for Latent Tuberculosis Infection (LTBI) involving a clinical questionnaire and Interferon Gamma Release Assay (IGRA) testing. 7 prisoners declined IGRA screening. 8 prisoners screened positive for LTBI, giving a positivity rate of 29.6% and 4 of these accepted chemoprophylactic treatment. No prison staff screened positive for LTBI. Supports including formalised LTBI screening in Irish prisons as recommended in the National TB strategy 2024-2030 and enhanced education of prisoners and staff are needed to tackle LTBI and TB in Irish prisons.

Enhancing Health Improvement with Health Impact Assessment (HIA): Lessons from a HIA of the Cork City Development Plan (2022-2028).

Topic/Dept: Health and Wellbeing

Author: Monica O'Mullane

Co-Author: Tara Kenny

Co-Author: Kristy Nash

Co-Author: Joanna Purdy

Co-Author: Ben Harris-Roxas

The Abstract

A Health Impact Assessment (HIA) was conducted on the Cork City Development Plan (2022-2028) between January and September, 2024. The HIA was carried out as part of a project, HIA-IM, which aims to build a HIA Implementation Model, using Institute of Public Health HIA guidance (1), an action research approach and multiple implementation science frameworks (2), to inform practice and policy.

A research study took place alongside the HIA, to capture the lived experience of the 12-person Steering Group/ research participants, in assessing the barriers and enablers to doing the HIA. Two world cafes, three Stop & Share reflections, three rounds of a standardised Normalisation MeASURE Development questionnaire (NoMAD) survey administration, and one round of interviews with each SG member took place over the nine months.

Study results indicate intersectoral learning and improved clarity of the HIA is required. Barriers to advancing HIA include a lack of familiarity of HIA across sectors, including within public health, along with a perceived complexity of HIA as an approach.

The main implications of the study indicate a requirement for capacity-building for HIA, and guidance to facilitate improved policy level scoping for HIA.

1. Pyper R, Cave B, Purdy J, McAvoy H. Guidance. Health Impact Assessment: standalone HIA and health in Environmental Assessment. A manual. Dublin and Belfast: Institute of Public Health in Ireland; 2021.

2. O'Mullane M, Kenny T, Nash K, McHugh S, Kavanagh P, Smith K. Development of a Health Impact Assessment Implementation Model: Enhancing Intersectoral Approaches in Tackling Health Inequalities- A Mixed Methods Study Protocol. HRB Open Research. 2024;7:14.

Beyond the Battlefield: Educating public health professionals on the impact of conflict and war

Topic / Dept: Health Protection

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The Abstract:

Ongoing global conflicts are creating unprecedented public health crises affecting millions. These challenges demand attention in the education and training of future public health professionals. By integrating conflict contexts into education, we prepare the next generation to address complex health challenges in war-torn and displaced populations.

Member schools of the Association of Schools of Public Health in the European Region (ASPHER) were surveyed about curricula on Public Health in Conflict and War which yielded curricula from 12 member schools. These were analysed and mapped into themes by use of a modified Delphi process, inclusion and educational delivery levels were then assessed.

The survey identified seven core themes for PH curricula: contextual factors, preventive strategies, emergency preparedness, impact, response, conflict resolution, solidarity, rehabilitation and recovery. There was strong consensus that this content should be included in public health education at all levels.

Public health education has largely overlooked conflict and war. Sharing expertise from regions already addressing these issues can raise awareness and equip practitioners with critical skills for future and current crisis situations.

Neighbourhood Social Conditions and Child Mental Health: A Literature Review

Topic / Dept: Health Improvement

Author: James O'Connell

The Abstract:

As Ireland becomes more urbanised, neighbourhood social conditions may influence population mental health more. This review examined the relationship between mental health and the neighbourhood social conditions that children grow up in.

MEDLINE, Embase, PsycINFO, Google Scholar and the *Growing Up in Ireland* and *Health Behaviours in School-Aged Children* libraries were searched. Eligible literature focused on middle childhood. The Critical Appraisal Skills Programme checklists were used.

Twenty-five studies (11 cross-sectional, 14 longitudinal, one from Ireland) were included. Urbanicity (how urban an area is) was associated with mental health. Neighbourhood disadvantage, collective efficacy, safety and disorder were social conditions related to mental health. The association between neighbourhood disadvantage and mental health was distinct from any familial disadvantage and mediated by collective efficacy. Social conditions were more closely related to mental health among girls and the deprived. Limitations included reverse causality.

To improve population mental health from early in life, poor neighbourhood social conditions should be addressed. Paradigm shifts, policy and legislation should be leveraged to this end.

It Takes a Village: Neighbourhoods, Growing Up and Mental Health in Ireland

Topic / Dept: Health Improvement

Author: James O'Connell

The Abstract:

Mental health problems affect 12% of people in Ireland (1). As society becomes more urbanised, neighbourhood social conditions may be a more important determinant of mental health, particularly from early in life. This longitudinal study investigated the relationship between urbanicity, neighbourhood social conditions and child mental health.

Data from Growing Up in Ireland Cohort '08 were analysed. Regression was conducted, controlling for socioeconomic factors. Urbanicity (how urban the child's neighbourhood was) at age 5 was the predictor. The total difficulties score (TDS), a measure of mental health, at age 9 was the outcome. Parent-reported neighbourhood disorder, safety, cohesion and built environment quality (BEQ) were tested as mediators.

Among 6,494 children, urbanicity predicted a worse age 9 TDS. Neighbourhood disorder, safety, and cohesion explained 21%, 22%, and 10% of this relationship, respectively, and combined, explained 34%. BEQ was a countervailing mediator in the associations between urbanicity, social conditions and TDS.

To promote mental health as society urbanises, neighbourhood planning must foster positive social conditions for children. A public health approach has been recommended to policymakers.

Reference

1. Healthy Ireland. Healthy Ireland Survey 2023 [Internet]. 2023 [cited 2024 August 11]. Available from: <https://www.gov.ie/en/publication/73c9d-healthy-ireland-survey-2023/>.

A rare case of infant botulism in a 2-month-old: public health response

Topic: Health Protection

Author: J. Gannon

Co-Author: N. Conroy

Co-Author: S. Doyle

In September 2024, Department of Public Health Dublin & SE was notified out-of-hours by CHI Crumlin of a suspected case of infant botulism in a 9-week-old breastfed baby girl. She received antitoxin in PICU. Specific BabyBIG immunoglobulin was urgently sourced from California's Infant Botulism Treatment & Prevention Program. Neurotoxin B was isolated in her faeces 3 days later.

In conjunction with EHOs, FSAI and HPRA, *Clostridium botulinum* testing was conducted on honey (consumed by family) and gripewater, probiotic & soother dip (consumed by baby) in Colindale Lab, UK. There was no animal exposure. One family member worked in construction on a trout farm.

No samples tested positive to date. One possibility is that clothes from the construction site were contaminated with spores which were ingested by the baby. She responded well to treatment and is expected to make a full recovery.

Due to infant botulism's rarity, there lacked clear guidance for on-call public health, including sourcing BabyBIG. A summary document was developed with HPSC input following this case to guide response for future episodes. It was recommended to Child Health Public Health to advise parents of risk of construction apparel and infant infection.

Adolescent Age of First Alcoholic Drink and Associated Parental Factors in the West of Ireland.

Topic / Dept: Health Improvement, Department of Public Health Health Service Executive West and North West (Area F), Merlin Park Hospital, Galway.

Author: Dr Kathleen Mc Donnell, Specialist Registrar in Public Health Medicine.

Co Author: Dr Ann O Farrell, Health Intelligence Unit, Health Service Executive.

Co Author: Ms Anne Doyle, Health Research Board.

Co Author: Mr Emmet Major, Planet Youth West, Western Region Drug and Alcohol Task Force.

Co Author: Professor Diarmuid O'Donovan, National Health Improvement, Health Service Executive.

The Abstract:

Parents often provide alcohol to adolescents.¹ Perceived parental tolerance towards teenage drunkenness has increased in the West of Ireland.² This research investigated the relationship between adolescent age of first alcoholic drink (AFAD) and parental factors.

Cross-sectional secondary data analysis, using statistical analyses, of 15–16-year-olds in the West of Ireland using the 2022 Planet Youth survey.

Almost three quarters (74.5%) of respondents already had their first alcoholic drink, 18.9% had their first drink at 12-years-and-younger and 35.2% reported being supplied alcohol by a parent. Never drinking alcohol at home, adequate parental supervision and easy access to parental advice were protective for younger AFAD. Father weekly drunkenness, parents who were perceived to be more tolerant of adolescent drunkenness and rarely spending time with parents were risk factors for AFAD.

There is a high prevalence of adolescents having a first drink by age 15-16 years. Risk and protective parental factors associated with adolescent AFAD were identified. There is a need to increase population awareness and implement public health initiatives to address this issue in Ireland in order to reduce adolescent alcohol-related harm.

Reference

1. Hawkins V. Smoking, drinking and drug use among young people in England in 2011. Fuller E, editor. London: Health and Social Care Information Centre; 2012.
2. Western Region Drug & Alcohol Task Force. Planet Youth. Growing up in the West. The lives of our young people. Planet Youth Report. Galway County 2022.

Perceived Discrimination is associated with lifestyle risk factors and adverse health outcomes: A secondary analysis of the All-Ireland Traveller Health Study (2007-2010)

Author: B Quirke

Co Author: MM Heinen

Co Author: CC Kelleher

The Abstract:

The All-Ireland Traveller Health study (AITHS), established significant health inequalities. This analysis examines any association between Perceived Discrimination (PD) and both health behaviours and health outcomes, as seen globally with other Minority Ethnic Groups.

We analysed 1638 AITHS adult health status records. Univariate analyses identified the significant material (M), socio-cultural (SC) and lifestyle factors (LF) associated with PD; Reported health conditions were combined to create two variables, Respiratory Conditions (RC) and Cardiovascular Diseases (CD) respectively. We then employed logistic regression analysis, using a stepwise backward Likelihood ratio-method.

In the model with RC as the main exposure and Smoking, PD, Education, Sex and Age as independent variables – Smoking OR 2.29(1.80-2.92); PD 2.08(1.64-2.64) and Age 0.97(0.96-0.98) each remained significant. In the final model, adjusted for age, smoking and sex, PD remained significantly associated with both RC ($p < 0.001$), (OR 2.11, 95%CI 1.68-2.60) and CD ($p = 0.003$), (OR 2.12, 95%CI 1.29-3.50) respectively.

AITHS was cross-sectional, so directionality cannot be inferred, but the associations are clear and likely to have deteriorated since.

References

- Pascoe E.A., Smart Richman L. (2009), Perceived Discrimination and Health: A Meta-Analytic Review, *Psychol Bull.* 2009 July; 135 (4): 531-554. Doi: 10.1037/a0016059
- Sims M, Diez-Roux AV, Gebreab SY, *et al* (2016): Perceived discrimination is associated with health behaviours among African-Americans in the Jackson Heart Study, *J Epidemiology Community Health* 2016;**70**:187-194.

All Ireland Traveller Health Study: Summary of Findings. All Ireland Traveller Health Study UCD Team. Department of Health. Dublin. September 2010. <http://health.gov.ie/blog/publications/all-ireland-traveller-health-study/>

First year post-hoc evaluation of human health impacts of solid fuel regulations

Topic / Dept: Health Protection

Author: Dr Ciara Carroll

Co Author: Dr Keith Ian Quintyne

The Abstract:

Particulate matter $\leq 2.5\mu\text{m}$ ($\text{PM}_{2.5}$) is the most harmful air pollutant to public health in Ireland, primarily originating from residential solid fuel use. This study aimed to assess the effect of national Solid Fuel Regulations (SFR) on $\text{PM}_{2.5}$ concentrations and emergency cardiovascular and respiratory hospitalisations.

$\text{PM}_{2.5}$ data were sourced from the Environmental Protection Agency. Emergency admission rates for cardiovascular, respiratory, chronic obstructive pulmonary disease (COPD), asthma, ischaemic heart disease (IHD), heart failure (HF), stroke, and arrhythmia were sourced from the Hospital In-Patient Enquiry system. Comparisons were made between the pre-SFR period and first year post-SFR.

Mean $\text{PM}_{2.5}$ concentration fell by $1.0\mu\text{g}/\text{m}^3$ and the prevalence of World Health Organization air quality guideline exceedances decreased from 11.6% to 7.4% (both $p < 0.001$) in the year after SFR implementation. Significant reductions were also seen in cardiovascular, COPD, asthma, IHD, HF and arrhythmia admission rates.

Improved air quality and reduced hospital admissions were observed post-SFR introduction. A Health in All Policies approach and public awareness campaigns on the health impacts of solid fuel are recommended for continued progress.

Health Impact Assessment: Future Directions?

Topic / Dept: Health Improvement

Author: James O'Connell

Co-author: Dr Greg Martin

The Abstract:

If we want long healthy lives for all, then we must have Health in All Policies. Although health impact assessment (HIA) is critical to this, it is underutilised in Ireland. However, this is changing as the demand for healthy policy will grow.

Climate change, global instability, population growth, ageing and ever more complex needs, mean we live in a society where more must be done for less and securing a healthy population to sustain our society will be crucial. Across sectors, having a healthy policy is now recognised as being a powerful means to generate buy-in for change towards a more sustainable society. In this context, the healthy policy, which adds the most value, will rise above others. HIA practice will be in demand to address the commercial determinants of health, which are now more appreciated than ever, and also growing climate and environmental litigation.

For the health sector, the challenges are to be leaders in HIA practice, drive its integration across sectors and cultivate 'champions' for healthy policies. Demonstrating the value of healthy policy for the economy, the environment and society will be an important part of the HIA process and will support a wider paradigm shift towards a wellbeing economy.

Creating an accessible patient information leaflet for the EpiShuttle High Consequence Infectious Disease Transport Unit

Topic/ Dept: Health Protection / Department of Infectious Diseases, Mater Misericordiae University Hospital, Dublin

Author: Ralph Hurley O'Dwyer

Co Author: James Gilroy

Co Author: Catherine Uhomoibhi

Co Author: Máirín Boland

Co Author: Brendan O'Kelly

Co Author: Deirdre Morley

Preferred Format: Poster

The Abstract:

The EpiShuttle is a sealed unit used to transport patients with “High Consequence Infectious Diseases” (HCIDs) from healthcare sites around Ireland, to Ireland’s National Isolation Unit (NIU) or to specialised healthcare settings abroad. Travelling in an EpiShuttle may be extremely daunting for patients, however, it is important to consider the need for properly informed consent.

This project aimed to create a patient information leaflet (PIL) to explain the EpiShuttle transport process and the limitations of the medical care provided within the device. Its ultimate goal was to help patients provide informed consent to the transport process.

A multi-specialty group was formed to draft the PIL, including a staff member who had previously travelled in the EpiShuttle. The PIL was written in Plain English, with visual aids to increase accessibility, and an audio version was recorded.

The EpiShuttle PIL was successfully produced in both written and audio forms, with further translations planned, and was presented to the HSE HCID transport subgroup for further development. This project demonstrates how improved communication about unfamiliar medical interventions can be used to reduce anxiety and ensure valid informed consent.

A complex outbreak of chickenpox at a centre for international protection applicants in Ireland: the role of serological testing

Authors: Martina Paciarotti¹,

Co-Author: Áine Varley,

Co-Author: Vikram Niranjana,

Co-Author: Mary O'Meara

Co-Author: Suzanne Cotter, *on behalf of the Incident Management Team.*

¹ Surveillance assistant, on behalf of the Department of Public Health HSE Dublin and North East.

The Abstract

Chickenpox is a highly contagious disease caused by varicella zoster virus (VZV). Prior to this study, the level of immunity to VZV among International Protection Applicants (IPAs) in Ireland was unknown. This report describes the results of a serological screening initiative, conducted during a VZV outbreak in a congregate IPAs setting in Ireland.

Of 320 residents, 302 were screened. Phlebotomy was performed over two days in July 2024. Samples were processed at the National Virus Reference Laboratory. Demographic characteristics of the cohort were described and seroprevalence analysed at the individual, family and cohort-level.

Out of 302 residents tested, 180 (59.6%) were immune and 122 (40.4 %) were non-immune. Most of the non-immune cohort (87.7%) were children (<16 years). There were 11 women of childbearing age (16-50 years) with no evidence of immunity. At the time of reporting, 21 of the 82 families were identified as fully immune based on serology or recent infection.

This is the first report to describe VZV immunity profile of IPAs in Ireland. Results of serological screening informed several public health actions including management of high-risk individuals, suitability for transfer and vaccine strategy.

Statement

This report is based on activities carried out under the legislative functions of the Medical Officer of Health; ethical approval has not been sought. No authors have any interests to disclose. No funding was received for the conduct of this report.

Positive shift in breastfeeding pattern among Irish mothers

Topic / Dept: UCD School of Public Health, Physiotherapy and Sports Science

Author: Nandakumar Ravichandran

Co Author: Orla Kilduff

Co Author: Jamie Slattery

Co Author: Clodagh Lee

Co Author: Emily Hunt

Co Author: Alexander Douglass

Co Author: Sarah O'Brien, Health Service Executive

Co Author: Cecily Kelleher

Co Author: Celine Murrin

The Abstract:

Breastfeeding reduces childhood obesity risk by 25%, making it essential for promoting healthy weight. The World Health Organization (WHO) recommends exclusive breastfeeding for at least 6 months. This study compares breastfeeding rates between Irish and non-Irish mothers across two survey rounds (R5 and R6).

Parents of 1st and 2nd class children from 121 schools participated in the COSI family survey, completed online or by post. Data on breastfeeding patterns were collected, anonymized, and analysed using descriptive and regression methods.

A significant difference in breastfeeding for at least a month existed between Irish and non-Irish mothers ($p < 0.001$). A negative association was found between breastfeeding duration and maternal birth country ($b_1 = -2.442$; $p = 0.004$), indicating shorter durations in Irish mothers. However, Irish mothers showed a 12.4% increase in breastfeeding rates and a 9.4% increase in exclusive breastfeeding from R5 to R6. Exclusive breastfeeding duration increased from 4.89 to 5.76 months, meeting WHO recommendations.

This suggests a positive shift in breastfeeding patterns among Irish mothers and highlights the need for continued actions to ensure consistent improvement.

Projected increases in dementia prevalence from 2022 to 2037 in Laois and Offaly

Topic / Dept: Health Intelligence and HSE Dublin and Midlands Public Health Department

Author: Dr Domhnall McGlacken-Byrne

Co Author: Dr Niamh O'Callaghan

Co-Author: Dr Patricia Carney

The Abstract:

Purpose. The aim of this research was to estimate the number of individuals likely to develop dementia in Counties Laois and Offaly in the coming 15 years to inform local service planning.

Methods. We projected the number of people of different ages living in Laois, Offaly and nationwide from 2022 to 2037, combining Census 2022 data with Central Statistics Office population projection growth models. Then, we applied age-specific dementia prevalence rates from the European Collaborative on Dementia to those projections.

Results. From 2022 to 2037, the population will potentially grow by up to 18.5% in Laois and Offaly, while the proportion older than 65 years will potentially increase from 14% to approximately 19%. In the high-growth model, dementia prevalence will increase substantially, from an estimated 1,525 persons in 2022 to 2,705 in 2037 (comprising 1,447 and 1,258 in Offaly and Laois, respectively). Women with dementia will continue to outnumber men with dementia by a two-to-one ratio.

Implications. The number of people living with dementia in Laois and Offaly will potentially increase markedly in the coming years. These findings carry ramifications for health service planning.

References:

1. European Collaboration on Dementia (EuroCoDe). Prevalence of dementia in Europe [Internet]. 2018 [cited 2024 Oct 9]. Available from: https://www.alzheimer-europe.org/dementia/prevalence-dementia-europe?language_content_entity=en
2. Central Statistics Office. Population and labour force projections 2023-2057 [Internet]. 2024 [cited 2024 Oct 9]. Available from: <https://www.cso.ie/en/releasesandpublications/ep/p-plfp/populationandlabourforceprojections2023-2057/populationprojectionsresults/>

An exaggerated reaction to a Tuberculin Skin Test

Author: Zaza Abidin,

Co-Author: Doris Obialor,

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Co-Author: Bridget Freyne,

Co-Author: Douglas Hamilton

The Abstract

The tuberculin skin test (TST) is useful in screening populations for *Mycobacterium tuberculosis* (MTB) infection. While erythema and induration are the normal response to a TST, atypical reactions can rarely occur. We are reporting a child with an exaggerated response to a standard TST.

A 10-year-old child who is a contact of an infectious pulmonary TB case attended clinic for screening. Twenty-four hours after the TST was administered, the child developed an exaggerated necrotic blistering lesion with a rapidly progressive erythematous skin area. The child had received BCG vaccination at birth. The child had no symptoms and was urgently referred to our paediatric colleagues for further clinical management. Investigations revealed a positive IGRA and a normal CT thorax.

The necrotic lesion was managed conservatively and subsided after one week. The child was commenced on anti-tuberculous therapy for active disease.

Severe reaction from a TST is rare but sometimes seen in patients with active tuberculosis and high mycobacterial antigen load.¹ Reassuringly, the skin reaction was self-limiting. The multidisciplinary approach between the Public Health and Paediatric teams was proven to be of value in managing this scenario.

Inpatient Awareness and Attitudes Towards Hospital Campus Smoking Bans and E-Cigarette Bans Among Patients Admitted to St Vincent's University Hospital, Dublin, Ireland.

Topic/Department: Health Improvement

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Co Author: Patricia Fitzpatrick^{1 2}

Co Author: Ailsa Lyons²

Co Author: Ana Mattson²

Co Author: Sinead Stynes²

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¹School of Public Health, Physiotherapy and Sports Science, University College Dublin.

²Department of Preventive Medicine & Health Promotion, St. Vincent's University Hospital.

The Abstract:

St Vincent's University Hospital (SVUH), Dublin implemented Ireland's first smoke-free campus in 2009. Regular census surveys indicate a steady decline in inpatient smoking prevalence. This study examines current smoking rates and awareness and attitudes toward campus smoking and e-cigarette bans.

A census survey of inpatients on a single day was conducted in November 2023 at SVUH. Chi-square tests were used for comparisons, using SPSS.

Smoking prevalence among 187 inpatients was 13.3%, higher in males than females (14.7% vs 12.2%; NS), a decline from 15.1% (2016). Awareness of campus smoking ban was 89.7%; higher in those under 69 (91.4%) and males (90.2%). 58.8% were aware of the e-cigarette ban. Post-admission awareness of both bans increased ($p < 0.001$). Support for the smoking ban remained high, higher in non-smokers than smokers (94.3% vs 64.0%; $p < 0.005$), reflecting a small decrease in smokers from 64.7%, but an

increase in non-smokers from 92.5% in 2016. Among smokers, 43.5% considered quitting due to the ban, and 42.9% reported no change in behaviour.

Falling smoking rates and increased support reflect the impact of hospital policies and national trends. Further efforts are needed to inform patients about the e-cigarette ban.

Prevalence and risk factors of frailty in people experiencing homelessness: a systematic review and meta-analysis

Topic / Dept: Health & Wellbeing / Trinity College Dublin

Author: Thomas Cronin

Co Author: David Healy

Co Author: Noel McCarthy

Co Author: Susan M Smith

Co Author: John Travers

The Abstract:

The experience of homelessness has been associated with premature ageing and an earlier onset of geriatric syndromes. Identification of frailty, followed by appropriate intervention, may help improve health outcomes for people experiencing homelessness (PEH). This study aimed to identify prevalence and risk factors for the development of frailty in PEH.

A PRISMA-informed systematic review on the prevalence and risk factors of frailty in PEH was undertaken and a meta-analysis on the prevalence of frailty in this population was performed.

A total of 1672 articles were screened for eligibility and 11 studies were included, containing 1017 participants from seven countries. The range of frailty prevalence was 16-70%. Risk factors for developing frailty in PEH included being female, increased years spent homeless, and drug addiction.

This study highlights a high prevalence of frailty and pre-frailty in PEH further emphasising the need to address homelessness as a major threat to health. Considerations should also be given towards screening for frailty in PEH and developing strategies that optimise the care of PEH who are frail.

A Collaborative Response to a Complex Outbreak of Chickenpox in a Congregate Setting

Topic / Dept: Health Protection

Author: Dr Lili Peterson¹

Co Author: Dr Triona McNicholas¹

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Co Author: Dr Jacinta Mulroe¹

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Co Author: Dr Mary Condon¹

Co Author: Ms Deirdre Gorman²

Co Author: Ms Regina Buckley²

Co Author: Dr Angy Skuce³

Senior Author: Dr Sarah Doyle¹

1. Department of Public Health Dublin and South East, Health Service Executive
2. Community Health Organisation 6 Vaccination Team, Health Service Executive
3. Safetynet Primary Care

The Abstract:

Chickenpox is usually self-limiting in children, with complications more common in adults, pregnant people and neonates. The response to an outbreak of chickenpox in an International Protection Accommodation Service (IPAS) is described.

Control measures included isolation of cases (n=13), identification of vulnerable residents for post exposure prophylaxis, targeted vaccination of those around vulnerable people and subsequent mass vaccination of children and women of childbearing age (70 vaccines, 35.4% uptake). Protocols and tools were developed for vaccination in collaboration with Community Healthcare Organisation (CHO) and Safetynet teams. No cases were reported after mass vaccination.

Challenges included hypothesised high susceptibility, with residents predominantly from countries with low immunity levels and a large number of children. The outbreak spanned months, with prolonged closure of the setting. Five pregnant people were identified, and one contracted the virus. There was reliance on self-reporting symptoms, with potential for unreported cases. A model for vaccination in partnership with the CHO was developed as an essential tool to control outbreaks in IPAS settings. This model has been adopted by other regions.

Why Women Consume Alcohol Across the Life Course, and the Impact of COVID-19

Topic/Department: Health and Wellbeing

Author: Shauna Kelly

The Abstract

Women are at increased risk of alcohol-associated harms and the alcohol gender gap is closing.¹ To reduce women's alcohol consumption we need to understand why they drink across the life course, and in the post-COVID-19 era.

A literature review using a systematic approach was undertaken, involving key database and grey literature searches to identify qualitative studies exploring why adult Australian women drink alcohol (from their perspectives). Steps included quality assessment, data extraction, and synthesis using inductive thematic analysis. Themes from studies 4 years pre- and 4 years post-COVID-19 pandemic (2016-2024) were compared to determine whether/how it influenced drinking motives.

22 studies were included. Key themes identified included: (1) coping, (2) demarcation, habit and reward, (3) norms, connections and pressure, and (4) self-care. Post-COVID, there was a greater emphasis on alcohol for coping as women managed additional stressors/roles, and the social acceptability of alcohol seemed to increase.

This review provides rich/in-depth understanding of the role alcohol plays in women's lives. These findings can be used to inform alcohol policy and practice in culturally similar countries including Ireland.

Assessing the impact of mandatory COVID-19 Vaccination for organ transplant recipients: a literature review.

Topic/Dept: Health Protection

Author: Louise Broderick

The Abstract

Organ transplant activity was severely disrupted by the COVID-19 pandemic.(1) Transplant recipients risk heightened complications from COVID-19.(2) This strains an overburdened healthcare system, with broad public health implications. Some international transplant programmes introduced mandatory SARS-CoV-2 vaccination as a requirement of transplant candidacy. This raised concerns about increasing barriers to transplant access and exacerbation of health inequalities. This study aims to inform a Health Impact Assessment (HIA) on mandatory COVID-19 vaccination for transplant recipients in Ireland.

A literature review was conducted, sourcing data from PubMed, government agencies such as ODTI, and guidelines from WHO and UNOS.

SARS-CoV-2 vaccination can optimize transplant outcomes, aligned with the duty of organ stewardship. However, vaccine hesitancy among organ recipients may restrict their access to life-saving treatment, disproportionately affecting certain ethnic and social groups. This may deepen health inequities and undermine public trust, with implications for organ donation rates and public health.

A HIA of vaccine mandate policies must carefully consider the potential impact on organ transplant access and health equity.

Epidemiology and Risk factors of Monkeypox in Europe: A Scoping Review study

Category: Health Intelligence

Author: Mr. Nandakumar Ravichandran BE, MPH (UCD School of Medicine)

Co Author: Dr Parnian Jalili MD, MPH (UCD School of Public Health)

The Abstract:

Monkeypox (mpox) is a zoonotic disease from the Congo Basin (Clade I) and West Africa (Clade II). In 2022, mpox spread to non-endemic European countries primarily through sexual transmission, with the outbreak dominated by the less virulent Clade IIb lineage. The World Health organization declared this outbreak a Public Health Emergency of International Concern (PHEIC), ending in May 2023 due to a decline in cases. A resurgence of the more virulent Clade I in July 2024 in Congo led to a renewed PHEIC declaration, highlighting the risk of global spread.

Twenty-seven studies included in the final analysis from 570 studies identified across PubMed, SCOPUS, and Embase databases from 2014 to 2024 following PRISMA-ScR guidelines.

Key themes included epidemiology and risk factors, with high-risk behaviors identified among men who have sex with men (MSM) who have multiple partners, individuals living with HIV, and frequent travelers to endemic regions.

With no cure, public health measures like surveillance, contact tracing, behavioral interventions, vaccination campaigns, and awareness programmes are essential to prevent further spread. Though cases in Europe remained low in September 2024, proactive measures are crucial.

Targeted tuberculosis screening in an Irish prison

Topic / Dept: Health Protection

Author: Dr Sonja Moore, Department of Public Health HSE Dublin and Midlands

Co Author: Dr Mark McLoughlin, Department of Public Health HSE Dublin and Midlands

Co Author: Dr Zaza Abidin, Department of Public Health HSE Dublin and Midlands

Co Author: Dr Ruth McDermott, Department of Public Health HSE Dublin and South East

The Abstract:

Tuberculosis (TB) remains a public health concern in prisons, where multiple factors increase transmission risk. Active pulmonary TB was diagnosed in an inmate with a 2-month history of TB symptoms, with sputum culture positive in 9 days, leading to targeted screening in a Dublin prison.

The Department of Public Health Dublin and Midlands (PHDM) conducted a risk assessment on site with the Irish Prison Service. The index case lived in a single cell in a wing of 17 long-term prisoners. An on-site Mantoux clinic was arranged at the prison by PHDM in May 2024.

Four of the fifteen (26%) inmates tested positive with indurations between 12 and 20mm. Subsequent chest x-rays did not show active pulmonary TB disease indicating latent TB infection (LTBI). All LTBI cases were Irish-born and asymptomatic. Screening of two prison staff identified as contacts did not identify further cases.

The high positivity rate in this prisoner cohort – compared to the general population (1) and to rates in UK prisons (2) – and the delay in identification of the index case demonstrate the risk of TB in Irish prisons. This highlights a need for more robust screening in the Irish prison system, currently limited to symptom check on entry.

1. European Centre for Disease Prevention and Control. Tuberculosis. In: ECDC. Annual epidemiological report for 2022. Stockholm: ECDC; 2024.

2. Gray BJ, Perrett SE, Gudgeon B, Shankar AG. Investigating the prevalence of latent Tuberculosis infection in a UK remand prison. *Journal of Public Health*. 2019 Jan 4;42(1):e12–e17

Leprosy in 2024: Modern Challenges in Contact Tracing a Neglected Tropical Disease (NTD)

Topic/Dept: Health Protection

Author: Rebecca Marshall

Co-Author: Peter Barrett

The Abstract

We present a case of multibacillary leprosy in a Haitian male living in a congregate setting, the 1st notified in our region in the last decade. This case presented complex PH challenges given the highly stigmatising nature of this NTD.

Comprehensive contact tracing and a rapid scoping review of international guidelines was undertaken. We defined a close contact as any person who had been in contact with the index case for at least 20 hours/week, for at least 3 months in the preceding year. Chemoprophylaxis with single dose Rifampicin was offered to close contacts.

3 close contacts were identified and given chemoprophylaxis. 10 others were possible close contacts; 2 had left the country. Contact tracing decisions for exposed individuals needed to be weighed against the decision to disclose potentially stigmatising information. Most international guidance is from endemic leprosy settings and was often not directly applicable. An extensive public health risk assessment, (including consultation with expert colleagues) informed our decision not to classify the remaining 7 individuals as true close contacts.

This case presented significant challenges for contact tracing in a high-income setting and highlighted the relevance of EU countries to have their own guidance for the public health management of certain NTDs, given recent trends of global migration.

A Scoping Review of Reflective Practice in Postgraduate Medical Education

Author: Rebecca Marshall²,

Co-Author: Maurice Kinsella³

Co-Author: Aparna Keegan⁴

Abstract

Reflective practice (RP) has emerged as a key component in the development of medical professionals, and has been shown to improve critical thinking, self-awareness, and continuous professional development, all essential skills for public health (PH) professionals. The current PHM curriculum lacks structured RP opportunities, potentially impeding trainees' growth.

A scoping review of the literature was undertaken to understand how RP is understood and applied in GME contexts.

The review identified 31 relevant studies across 2 databases, covering various models of RP and their application in training contexts. RP is understood differently across studies, with models such as Schön, Gibbs & Kolb's frequently cited. RP interventions such as reflective writing, group reflections, and coaching programs were examined, with many studies suggesting that RP enhances reflective capacity, professionalism, & communication skills. Barriers to effective RP implementation include time constraints, lack of structured frameworks, and concerns about its use in assessments.

RP should be integrated into the PHM HST curriculum through tailored reflective activities, facilitated by trained mentors and aligned with key professional competencies. These findings will inform future curriculum development to foster reflective learning and professional preparedness among public health trainees.

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Obesity and Influenza-like illness: Results from the ALIC⁴E Randomised Clinical Trial

Topic / Dept: Health Improvement

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The Abstract:

Observational studies suggest a mild to moderate association between obesity and severity of influenza-like illness (ILI).¹ Using data from the ALIC⁴E Randomised Clinical Trial (RCT), this study aimed to investigate the relationship between obesity and ILI severity, as well as the time to recovery in obese and non-obese patients.²

2,622 adults (≥18 years old) were included and categorised into three groups based on Body Mass Index: under/normal weight, overweight, and obesity. ILI symptom severity was assessed according to these three groups. A Cox proportional hazard model was used to evaluate the time to recovery.

There was no difference in ILI symptom severity between these three groups. Obese patients took longer to recover than under/normal weight adults with adjusted HR 0.88 (95% CI, 0.79 to 0.99). The mean recovery times were 6.6 days (95% CI, 6.0 to 7.1) for obese patients, 6.2 days (95% CI, 5.8 to 6.6) for overweight, and 5.7 days (95% CI, 5.4 to 6.1) for under/normal weight.

Although obese patients do not present with more severe ILI symptoms, it takes longer for them to recover from ILI compared to under/normal weight adults. Thus, timely treatment and additional support may be necessary for managing these patients.

Building trust in childhood immunisations in the Roma Community: a collaborative community engagement initiative

Topic / Dept: Health Protection/HSE National Immunisation Office and HSE National Social Inclusion Office

Author: Louise Lyons Mehl

Co Author: Clodagh O'Moore

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Co Author: Sinead Spelman

Co Author: Mirela Tanase

Co Author: Aileen Kitching

Co Author: Lucy Jessop

Co Author: Chantal Migone

The Abstract:

The purpose of this initiative is to build trust in childhood immunisations. It is a collaboration between the HSE National Social Inclusion Office (NSIO), National Immunisation Office (NIO) and Cairde.

Two online education sessions were planned with community representatives and facilitated by interpreters. Pre- and post-evaluation surveys were developed using the World Health Organisation Behavioural and Social Drivers of Vaccination tool and results analysed on Microsoft Excel. An evaluation meeting was described narratively.

The pre-session survey response rate was 40% (n=6) and post-session survey response rate was 93% (n=14). There was an improvement in perceived importance of childhood vaccines ('Thinking and Feeling domain') with 44% increase in perception of vaccination as 'very important' (33% vs 82%). To assess 'Motivation', the decision to decline all vaccines improved from 50% to 0%.

The results show that a community engagement and partnership approach may build trust in vaccines and improve drivers of vaccination among Roma community members. Based on this initiative and evaluation, training of community health workers nationally was conducted which will inform co-development of tailored resources.

Using the Irish Hip Fracture Database to drive improvement in Older Adult Care

Topic / Dept: Health Service Improvement

Author: Louise Brent

Co Author: Professor Tara Coughlan

Co Author: Pamela Hickey

Co Author: Mr Terence Murphy

Co Author: Domenico Leracitano

The Abstract:

The Irish Hip Fracture Database (IHFD) is a national clinical audit managed by the National Office of Clinical Audit, that captures data on hip fracture patients aged over 60 years.

To date the IHFD has reported on 11 years of data. Each year there are 4000 hip fractures, the median age of a patient is 81 and 66% are female. 84% are admitted from home, 12% from a nursing home and 95% are caused by a low trauma fall.

The IHFD reports on 7 standards. In 2023 the data showed that 29% were admitted through ED within 4 hours, 75% had surgery within 48 hours, 4% developed a pressure injury, 83% were seen by geriatrician or ANP, 87% had bone health assessment, 83% specialist falls assessment and 87% were mobilised on the day after surgery (87%).

Other data shows that 82% get a pre-op nerve block, 71% have a nutritional screen, 49% had a delirium screen day 1, 24% achieved independent mobility, 25% were discharged home directly, 38% went to rehabilitation and the median length of stay was 12 days.

This data has led to the development of orthogeriatric services in each hospital and quality improvement is embedded in each hospital through their hip fracture governance committee. The IHFD is an exemplar of how to get care right.

Audit of the time excluded from work/crèche due to awaiting VTEC clearance in Dublin and the South East

Topic / Dept:

Health Protection

Author: Dr Lili Peterson

Co Author: Dr Colette O'Hare

Senior Author: Dr Niall Conroy

The Abstract:

Ireland has one of the highest VTEC rates in Europe. As part of the Public Health response to VTEC, cases in high risk groups are excluded from work/crèche until they provide two stool samples, clear of VTEC. Exclusion leads to lost productivity with parents taking time off work to care for children and workers excluded (health care workers, food handlers). Many may not have access to sick pay or secure employment. The aim of this study was to quantify the lost productivity resulting from awaiting clearance.

Data from Computerised Infectious Disease Reporting (CIDR) were used to audit all VTEC cases notified in Dublin and South East in 2022 and 2023. Cases in high risk groups were identified and date of exclusion and return examined. Analysis was carried out in Excel.

In total 97 cases were excluded. Clearance was achieved in 80, 4 of whom had not started in the high risk setting so no last day of attendance was available. The total number of days off was 2532 (6.9 person years) the mean was 33.1 days (range 7 to 103 days). Three cases did not clear and were allowed back after a risk assessment, the mean time off was 91 days (range 40 to 160 days).

This audit demonstrates the scale of lost productivity due to VTEC clearance.

C difficile: An overview of the Irish surveillance system including the importance of whole genome sequencing.

Topic / Dept: Health Protection Surveillance Centre (HPSC-HSE)*, National Reference Laboratory- Public Health Laboratory**

Author: Mairead O' Hanlon*

Co Author: Dr PR Flanagan**

Co Author: Dr Tee Keat Teoh**

Co Author: R Franca *

Co Author: Dr Susanna Frost*

The Abstract:

C. difficile is a notifiable disease since 2009. In addition to laboratories reporting cases to public health, 98% of hospitals also participate in a voluntary enhanced *C. difficile* programme coordinated by the Health Protection Surveillance Centre (HPSC) where additional information is collected regarding the epidemiology and burden of CDI in Ireland. The *C. difficile* National Reference Laboratory (NRL) based in Public Health Laboratory Dublin, provide whole genome sequencing (WGS) service to all hospitals from 2022.

Using a HPSC template each hospital complete additional information on their CDI cases. In 2023, 2,256 cases of CDI were notified to public health while in the enhanced programme 2105 cases were reported. The enhanced programme collects wide range of CDI information such as acquisition, onset, severity rates. Details on cases are matched and shared between HPSC and NRL. Individual reports are sent to each hospital along with a national report which includes information on the most common WGS types.

This surveillance programme provides hospitals with CDI incidence rates, assesses the burden of CDI (new and recurrent cases) and provides hospitals with a standardised measuring tool to monitor rates which can be compared to similar hospitals. The WGS results significantly adds to the understanding of the epidemiology of this infection and ultimately influence priority areas for future interventions.

Older Adults are now the face of Major Trauma in Ireland

Topic / Dept: Health Service Improvement

Author: Louise Brent

Co Author: Professor Conor Deasy

Co Author: Pamela Hickey

Co Author: Olga Brych

Co Author:

The Abstract:

The Major Trauma Audit is a national clinical audit managed by the National Office of Clinical Audit (NOCA), that captures data of patients with life threatening or life changing injuries.

In 2024 a focused report from 2017-2021 on older adults was published as this is the largest group of patients in the major trauma population (51%, n=11,145).

56% of patients were female, the median age was 79 and 74% had pre-existing comorbidities. Low falls, of less than 2 metres, were the leading mechanism of injury (82%) and home was the main location of injury (70%). The most common injuries were limbs (27%) & head (25%). One third were allocated to the most severe injury category. Older adults are less likely than <65's to be pre-alerted (9% vs. 22%), received by a trauma team (6% vs. 15%), have longer hospital stays (12 vs 7), 22% of older adults were discharged to a nursing home and 44% went home. Mortality was 7%.

In light of the recently published clinical guidance for the care of older adults with major trauma published by the Health Service Executive this data shows that significant improvement is required to create an age friendly healthcare system with prompt and effective care for older adults.

Pornography use and its impact on risk-taking sexual behaviours among adolescents in the West of Ireland

Author: Nicola Murphy,

Co-Author: Peter Barrett,

Co-Author: Breedan Neville

The Abstract

Adolescents are increasingly using online pornography, which can lead to normalisation of sexual behaviours depicted online. This study aims to investigate pornography use and its association with risk-taking sexual behaviour among adolescents in the West of Ireland.

Secondary analysis of the Planet Youth Survey 2022 was performed. Pornography use was the main exposure of interest, along with using porn as a source of information to learn about sex and feeling pressured to view porn. Outcome variables were (1) condomless sex, (2) sex under the influence of alcohol/drugs and (3) very early (<15 yrs) sexual initiation. Chi-squared test was used & binary logistic regression model was developed to evaluate associations between exposures and outcomes. Crude & adjusted OR were reported with 95% C.I.s.

The response rate was 87%. 1/3 respondents had viewed pornography with a higher prevalence among males. Pornography use was associated with increased likelihood of all three outcomes. Parental monitoring and maternal attainment of 3rd level education were associated with lower likelihood of outcomes. This highlights the need to update the Sexual Health Strategy and improve provision of sexual health education around porn literacy.

Incidence rate of future STIs in those diagnosed with an STI in adolescence.

Topic/Dept: Health Protection

Author: Sinead O’Riordan

Co-Author: Sarah Doyle

Co-Author: Collette O’Hare

The Abstract

A previous history of a sexually transmitted disease (STI) is a known risk factor for future STIs. (1) In this study we aim to report the incidence rate of a future STI in cases who were diagnosed with an STI in adolescence.

Data on cases of chlamydia (CT) and gonorrhoea (GC) from 2013 to 2023 reported in the Dublin South East were extracted from Computerised Infectious Disease Reporting System. Patients who were diagnosed with CT or GC at ages 15 to 18 years were assessed for future reported case of CT or GC during the study period.

From 2013-2023, there was 94 cases of CT or GC reported in those aged 15-16 years, 222 cases were reported in those aged 17 years, and 598 cases reported in those aged 18 years. These cases were followed for a total of 3’954 person-years. The incidence rate of a future STI was: 4032/100’000 person-years in those diagnosed with their first STI aged 15-16 years; 4776/100’000 person-years for those diagnosed with their first STI aged 17 years; and 3050/100’000 person-years for those diagnosed with their first STI aged 18 years.

Adolescents diagnosed with an STI are at risk of developing future STIs. This population may benefit from targeted health promotion strategies.

Impact of the COVID-19 Pandemic on the Schools Immunisation Programme in Disadvantaged Educational Settings.

Topic/Dept – Health protection

Author – Orla Cotter

Co-Author – Christine White

Co-Author – Chantel Migone

The Abstract

Immunisation inequity is described by World Health Organisation as avoidable differences in immunisation uptake affecting disadvantaged groups.¹ The aim is to assess if vaccine uptake in disadvantaged (DEIS) schools was disproportionately affected by the COVID-19 pandemic. Vaccine uptake for students is recorded on Schools Immunisation System. Data for academic years 2018-19 to 2023-24 were extracted. Data for 2023-24 is preliminary and not validated. Descriptive analysis was performed using MS Excel.

In 2018/19 MMR and 4 in 1 uptake were 3.1 and 3.2% lower respectively in DEIS compared to non- DEIS schools. In 2019/2022 this difference rose to 5.4% and 5.3%, and by 2020/21 had risen to 10.3% and 11.1% respectively. In 2022/23 this gap fell to 7.4 and 7.5%, however for 2023/24 it widened further to 13.7 and 13.9%.

Uptake of MMR and 4 in 1 vaccines is lower in DEIS compared non-DEIS schools, with this disparity widening in the post pandemic period. This inequity places pupils and the wider population at risk of outbreak of vaccine preventable diseases. Further evaluation is required to understand the factors behind this inequitable uptake, and targeted activity necessary to increase uptake amongst DEIS pupils.

Development of new Infection Prevention and Control Guidance for High Consequence Infectious Diseases (HCID) in response to the Clade I mpox WHO emerge

Topic/dept – Health Protection

Author – Fiona McGuire

Co-Author – Barbara Slevin

Co-Author – Clíodhna O'Mahony

Co-Author – Marin Boland

The Abstract

The WHO declaration of a Public Health Emergency of International Concern for Clade I mpox necessitated urgent development of Infection Prevention and Control (IPC) guidance for hospital/primary healthcare settings. As part of the HSE HCID Steering Group, the Health Security Programme and the Antimicrobial Resistance and Infection Control (AMRIC) team collaborated on this work, to support national mpox incident readiness. The aims were to provide useful and needed guidance for those managing suspect cases and to establish robust IPC protocols, protecting health and care workers and mitigating transmission risks. The process involved a review of existing literature, stakeholder consultations, and iterative feedback to ensure the guidance was evidence-based and contextually relevant. Critical, practical IPC measures were identified for those encountering possible HCID cases, with clear pathways/algorithms, preparedness planning, checklists risk assessment, PPE, IPC requirements, and laboratory advice. This collaborative approach enhances our preparedness and response for mpox and is a generic and translatable resource for the management of other emerging HCID threats.

Informing future health protection system development

Topic/dept – Health Protection

Author – Tamara Ringwood

Co-Author – Shane Creagh Piper

Co-Author – Joanne Moran

Co-Author – Elaine Brabazon

Co-Author – Louise Cullen

The Abstract

The goal of infectious disease surveillance in Ireland is to protect the health of the population by providing reliable epidemiological information and evaluating control measures to enable patient safety mitigation. Data quality, therefore, underpins all surveillance activities. Surveillance data from CIDR for over 2.2 million notifications from week 1, 2004 to week 52, 2023 were reviewed for data quality in the statistical R environment. Variability in the completion rates of core fields and inconsistent formats in free text fields were identified over the 20 years. Completion rates for core data fields ranged from 28% to 100% with data entry formats for free text fields including diacritics, symbols and numerics, as well as text. Duplicate patient and case information was also evident; however, overall data quality improved in recent years. Inconsistencies in patient identifiable information (PII) can cause poor patient matching, duplication of records and inflation of case rates. These issues can have significant efficiency impacts resulting in unnecessary re-investigations and misinterpretation of trends. This study provides valuable insights for the design of the new national health protection information system OCIMS

Facilitators and barriers to treatment adherence in a case of poorly compliant TB.

Topic/dept – Health Protection

Author – Sinead O Riordan

Co-Author – Sarah Doyle

The Abstract

"This report outlines a multidisciplinary team approach to improve treatment adherence in a case of smear positive TB. We outline the main facilitators and barriers to compliance in this patient.

The case defaulted on treatment after discharge from hospital. He successfully re-engaged with healthcare services following combined efforts from his primary treating physicians, the Department of Public Health (DPH) and public health nurses.

A barrier to treatment compliance was the patient's familial and social background. An immediate family member had previously been diagnosed with TB and had a history of poor compliance. All immediate family members have failed to engage with contact tracing. The patient's friend group has been a facilitator in improving compliance. The friend group acted as a social support network for the patient and assisted the DPH in encouraging compliance. Adopting a patient centred approach and offering flexibility in VOT scheduling has facilitated compliance. This was achieved through collaborative efforts between the DPH and public health nurses and utilising "WhatsApp" for VOT calls.

This case highlights the importance of an MDT and patient centred approach to improving compliance in TB patients.

Lessons learned from norovirus outbreak in primary school age summer camp in Dublin, July 2024

Topic/dept – Health Protection

Author – Emer Liddy

Co-Author – Ruth Ceannt

Co-Author – John Gannon

Co-Author – Keven Browne

Co-Author – Collette O'Hare

Co-Author – Ruth McDermott

The Abstract

An outbreak of gastroenteritis in a daytime summer camp was declared by Public Health (PH) on 24/07/2024. We describe investigations, control measures and findings of the outbreak control team (OCT).

Environmental Health conducted a food hygiene inspection and collected environmental samples. PH collected information from cases using a questionnaire and organised stool samples. Instruction on routine and deep cleaning was issued and Warn & Inform letter sent for parents and staff.

33 cases were identified. Median age of child cases was 6 years. Most common symptom was vomiting, reported by 97%. Earliest symptom onset was 19/07/2024, in a kitchen staff member. Symptom onset peaked on 23/07/2024 (reported by 58%) suggesting point source exposure. Attack rate was 24% in children and 25% for staff. One staff member stool sample tested positive for norovirus (not typeable) and adenovirus.

Key points of interest were: (1) poor public awareness that alcohol-based gels do not kill all pathogens (2) potential role in outbreak of a food-handler in compliance with current return to work guidance post gastroenteritis and (3) possible contribution of novel norovirus (4) poor compliance with exclusion policy prior to PH involvement.

Developing and piloting the World Health Organization microplanning guide for primary care services to reach the unreached

Topic/dept – Health Service Improvement

Author – Ellen Cosgrove

Co-Author – Blerta Maliqi

Co-Author – Francis Poitier

Co-Author – Mayeh Omar

Co-Author – Samira Aboubaker

Co-Author – Anshu Banerjee

The Abstract

Disadvantaged groups face barriers in accessing essential health services leading to unmet needs and poor outcomes. To achieve universal health coverage (UHC) and the Sustainable Development Goals (SDGs) it is crucial to address gaps in access and coverage of primary health care. Microplanning tailors interventions to local needs and can enhance service delivery for underserved populations.

Between 2021-2023, WHO reviewed tools related to microplanning, identifying gaps in local implementation. To address gaps, WHO developed and tested a microplanning guide in Rwanda and Liberia using the Model for Improvement. Feedback was incorporated to finalize the guide, which emphasizes local solutions and is based on the Tanahashi Framework.¹

The guide has four components: diagnosis, analysis, solutions development, and implementation. It is based on five principles: national alignment, equity, service integration, multi-sectoral engagement, and local data. Pilots showed national commitment, streamlined processes, stakeholder engagement and local data are key to success.

Microplanning can help overcome service delivery bottlenecks, accelerating progress towards UHC and SDGs by addressing equity gaps in essential health services.

The Lifeways Cross-Generation Cohort Study of a Thousand Families 2001-2024: Retention and Attrition over 23 years.

Topic/dept – Health Intelligence

Author – Alexander Douglass

Co-Author – Madeeha Laghari

Co-Author – Celine Murrin

Co-Author – Catherine Phillips

Co-Author – Catherine Kelleher

The Abstract

"The Lifeways Cross-Generation Cohort Study comprises three generations of Irish families. As longitudinal linkage studies often face high rates of attrition over time, we aimed to analyse attrition rates and retention between each phase.

In total 1124 expectant mothers were recruited from 2001-2003 and provided details of fathers and up to four grandparents, with further data collection at birth, three, five, and nine years. Across 2023 an assessment of physical and digital files, as well as public death notices was performed to assess attrition including independent adjudication of ambiguous cases. Participants were classified as withdrawn, lost to followup (LTFU), deceased, or contactable depending on outcome.

Overall there were 6108 active participants at baseline of a total 7402 individuals. Attrition rate was 30.4%; 539 withdrew (8.8%), 701 were LTFU (11.5%), and 659 died (10.8%) of which 637 were grandparents. Overall 4941 participants (80.8%) were active (not withdrawn/deceased) with 4255 (69.6%) in 1074 families being contactable.

A majority of participants were retained over 23 years, highlighting the significance of retention techniques. A fourth generation follow-up study is planned through the same maternity "

Evaluation of the impact of targeted public health communications on pertussis awareness and immunisation uptake.

Topic/dept – Health Protection

Author – Gráinne Larkin

Co-Author – Sonja Moore

Co-Author – Síle Kelly

Co-Author – Titilayo Lekan-Agunbiade

Co-Author – Mary Ward

The Abstract

In response to the recent rise in pertussis cases, Public Health Dublin and Midlands sent written communication to the region's GPs and maternity units to raise awareness and request support in vaccination of pregnant cohort. This work aims to describe epidemiology and assess the impact of brief public health intervention.

The epidemiology was described. Vaccination rates, timely notifications, and hospitalisation rates were compared pre- and post-intervention using Chi-squared.

N=91 cases. Only 9.1% of infant cases received an antenatal booster and 41% of contacts were appropriately vaccinated. For infants, 22% received at least 1 vaccine pre- compared to 58% post-intervention ($p=0.59$). Pre-intervention, 42% of cases were notified within 21 days vs 58% post ($p=0.248$). Overall, 66% of infants <1 year and 100% ≤2 months were hospitalised. A lower proportion of appropriately vaccinated cases were hospitalised ($p=0.034$).

Vaccination protects against hospitalisation. Following correspondence there was an observed increase in notification timeliness. However, antenatal vaccination coverage was concerning. Bespoke, targeted interventions are needed to improve pertussis vaccine uptake in pregnancy to reduce infant illness.

Newly Diagnosed Tuberculosis Infection Cases from the Public Health Dublin and Midlands TB Contact Tracing Clinic at St James' Hospital Dublin 2023

Topic/dept – Health Protection

Author – Zaza Abidin

Co-Author – Nani Zaza Kartini Zainal Abidin

Co-Author – Sivasankari Manickam

Co-Author – Parvathi Theyagarajan

Co-Author – Doris Obialor

Co-Author – Yvonne Williams

Co-Author – Deirdre O'Connor

Co-Author – Lorrain Dolan

Co-Author – Anne Marie McLaughlin

Co-Author – Joeseph Maccon Francis Keane

Co-Author – Fionnuala Cooney

Co-Author – Ruth McDermott

The Abstract

"Latent tuberculosis infection (LTBI) is a state of persistent immune response to stimulation by Mycobacterium tuberculosis (Mtb) antigens with no evidence of active tuberculosis (TB) 1. In 2023 WHO estimated that quarter of the world's population is infected with Mtb. TB contact tracing aims to identify and treat contacts with LTBI, and find secondary cases.

Close contacts are screened at our weekly Public Health TB Contact Tracing Clinic at St James' Hospital. Demographics and clinical details of identified TB contacts are collated in an excel data log system. A retrospective review of TB contact data was performed.

In our area, 63 TB cases were notified in 2023. We screened 300 contacts of which 44 (14.7%) were positive for LTBI. Twenty-four patients completed TB preventive treatment. CXR follow-up was provided to 20, including 6 previously identified and treated for LTBI in the past. No active TB cases were identified.

TB screening is crucial in identifying contacts who have developed TB infection. Providing chemoprophylaxis significantly lowers their risk of developing active TB disease in the future. High completion rates at our clinic reflect the value of this service and our focus on patient centred care.”

Epidemiology and Burden of Influenza in Paediatric Patients Over two consecutive seasons in HSE-South West

Topic/dept – Health Protection

Author – ALMA BERMUELLER

Co-Author – Maeve McEnery

Co-Author – Hannah Mary Teresa Sheehan

The Abstract

"Influenza vaccination coverage in children 0-14 years remains low in Ireland despite the roll out of the free influenza vaccine for this age group¹. The aim of this study was to assess the burden of influenza-related healthcare utilization among children aged 0-14 years.

Influenza data were extracted from the national Computerised Infectious Disease Reporting system for influenza surveillance for the 2022-2024 influenza seasons. Hospitalisation and vaccination data were populated using the patient information management system and Covax (the HSE national vaccination registry). Where no vaccine record was found, the case was assumed to be unvaccinated.

Over two influenza seasons, 916 children presented to hospital (577 emergency department, 339 hospital inpatients), influenza vaccination coverage was only 5.8% and children aged 0-4 years accounted for 48% of cases, the median length of stay was 2 days for hospitalised patients (range: 1-27 days) and two intensive care admissions were recorded, both unvaccinated.

Paediatric influenza vaccination remains low despite continuously high numbers of paediatric patients presenting to hospital during the winter season. “

Administering three vaccines in one visit (MenACWY, Tdap and HPV) to first years in secondary school 2023-2024: a national programme evaluation

Topic/dept – Health Service Improvement

Author – Louise Lyons Mehl

Co-Author – Alice Quinn

Co-Author – Orla Cotter

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Co-Author – Tich Matsweru

Co-Author – Vicky McKenna

Co-Author - Chantal Migone

Co-Author – Louise Marron

Co-Author – Lucy Jessop

The Abstract

In 2023, the secondary schools vaccination programme was changed to co-administer 3 vaccines (HPV, MenACWY and Tdap) in 1 visit. The aim of the evaluation was to determine the perceptions of the school immunisation teams (SITs) of the change and measure vaccine uptake before and after the change.

A survey was designed by the National Immunisation Office and distributed to clinical and administrative staff in the SITs nationally. A descriptive analysis of survey responses was undertaken. School Immunisation System uptake data were extracted for 22-23 and 23-24. Vaccine uptake data for 23/24 was provisional.

The response rate was 23% (n=204). HPV vaccine uptake was 78% in 22/23 and 81% in 23/24. Uptake of Men ACWY was 81% in 22/23 and 77% in 23/24 and uptake of Tdap was 83% in 22/23 and 77% in 23/24. Following the change, 39% of vaccination staff reported increased workload, 28% reported decreased workload and 23% reported no change.

Administration of three vaccines in one visit in a school setting improved vaccine uptake for HPV vaccine. However, uptake of MenACWY and Tdap reduced. The impact on workload for SITs varied. Further evaluation is required to examine the impact of the change on vaccine uptake and workload.

Association between American Heart Association Ideal Cardiovascular Health Metrics and Lipid Biomarkers of Cardiovascular Disease

Topic/dept – Health and Wellbeing

Author – Duong Thuy Luong

Co-Author – Seán Millar

Co-Author – James Otvos

Co-Author – Ivan Perry

Co-Author – Catherine Phillips

The Abstract

"Lipoprotein particles predict cardiovascular disease (CVD) risk better than traditional lipid measures (1,2); however, their association with AHA Cardiovascular Health Metrics (CVHM) is under-researched.

In this cross-sectional study of 1,216 middle- to older-aged adults we examined CVHM derived from validated questionnaires. Lipoprotein subclass profiles were measured using nuclear magnetic resonance. Atherogenic indices were derived from lipid profiles. Regression analyses assessed CVHM relationships with lipoprotein profiles and atherogenic indices.

Most participants had intermediate cardiovascular health (76.7%), while only 16.9% achieved ideal CVHM. In fully adjusted models higher CVH scores were associated with favourable lipoprotein profiles and lower atherogenic indices. Participants with intermediate or poor CVHM had a higher likelihood of unfavourable atherogenic indices (OR 1.79, 95%CI 1.08–2.97 and OR 4.35, 95%CI 2.19–8.63, respectively) compared to those with ideal CVHM.

Given the low prevalence of ideal CVHM and the adverse associations observed, public health efforts should focus on improving lifestyle-related factors (particularly BMI) to achieve, and maintain ideal CVHM, reduce atherosclerosis and CVD risk."

Knowledge of cervical screening and the human papillomavirus in pre-eligible women by socio-economic group in Ireland: An online survey

Topic/dept – Health and Wellbeing

Author – Roisin McCarthy

Co-Author – Mairead O'Connor

Co-Author – Therese Mooney

Co-Author – Grainne Gleeson

Co-Author – Fiona Ness

Co-Author – Caroline Mason Mahon

Co-Author – Patricia Fitzpatrick

Co-Author – Noirin Russell

The Abstract

"Early evidence has reported a positive protective effect of the Human Papillomavirus (HPV) vaccination in women in Ireland. (1) This study aims to determine the knowledge of cervical screening and HPV in pre-eligible women by socioeconomic group (SEG).

An online survey examining knowledge of cervical screening and HPV was completed by 808 women (25-65). Within the pre-eligible group (18-24; n=107), the sample was categorised into high (n=52) and low (n=55) SEG. (2) Chi-square test was used (SPSS V29).

50% of high SEG women and 47% low SEG believed cervical screening is a test to find the HPV virus ($p=0.495$). High SEG were more likely to believe that removing abnormal cells from the cervix helps prevent cancer (71% vs 69%, $p=0.55$). Similar numbers in both believe you don't need to worry about developing cervical cancer if you go for regular screening (high: 21% vs low: 25%; NS). Higher SEG were more likely to believe that screening is unnecessary if you had the HPV vaccine (13% vs 4%, $p=0.17$) and that cervical screening is unnecessary if you are not sexually active (15% vs 5%, $p=0.058$).

Future communication strategies should continue to promote screening awareness and HPV vaccination benefits to the pre-eligible population"

A prospective study on the prevalence of SARS-CoV-2 antibodies among children in Ireland, 2024, to inform primary series vaccine recommendations.

Topic/dept – Health Protection

Author – Laura Whitton

Co-Author – Melissa Brady

Co-Author – Katie O’Brien

Co-Author – Jane Finucane

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Co-Author – Michael Carton

Co-Author – Kate Browne

Co-Author – Cillian De Gascun

Co-Author – Lois O’Connor

The Abstract

"Seroprevalence data are essential for good public health decision making. We measured age-group- and sex-specific SARS-CoV-2 antibody seroprevalence in children aged 3-17 years, to help inform immunisation recommendations.

Between February and June 2024, anonymised residual sera, sourced from primary care, were collected in four clinical laboratories and tested for SARS-CoV-2 antibodies at the National Virus Reference Laboratory.

Overall, 97.6% [95% CI:97.0-98.1] had detectable antibodies against SARS-CoV-2 proteins (spike or nucleocapsid); 97.9% [95% CI: 97-98.5] in females and 97.3% [95% CI: 96.3-98.1] in males. Seropositivity was higher in older age-groups compared with younger age-groups; 93.0% [95% CI:89.5-95.4] in 3-4 year olds, 96.7% [95% CI:95.3-97.7] in 5-11 year olds, and 99.0% [95% CI:98.4-99.4] in 12-17 year olds.

Seroprevalence was high in all age-groups, male and female, suggesting protection against severe disease. The high level of protection affirmed proposed changes to immunisation recommendations for 2024, specifically that a primary schedule of COVID-19 vaccine is not routinely recommended for healthy children who are not in high-risk groups(1)."

Urgent and unscheduled medical admissions among people aged 75 and older: contributing factors and potential alternatives

Topic/dept – Health Service Improvement

Author – Cian Dowling-Cullen

Co-Author – Silvia Bel Serrat

Co-Author – David Evans

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Co-Author – Nuala Connolly

Co-Author – Catherine Higgins

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The Abstract

"Unscheduled hospital admissions significantly burden patients and healthcare services. This study aimed to explore staff perspectives on factors contributing to potentially avoidable admissions among older adults to a Model 3 hospital in the West of Ireland.

Seven focus groups were conducted with 32 frontline hospital and community staff. A multidisciplinary public health team carried out a thematic analysis of the data.

An overarching theme, 'A massive snowball effect of multiple small issues together', described how various interconnected factors lead to potentially avoidable admissions. Seven key themes highlighted the system elements and interrelations that contribute. Participants emphasised the need for a comprehensive, prevention-oriented approach but found this challenging due to staffing limitations, workloads, and fragmented services.

The findings suggest avoidable admissions are influenced by factors beyond the hospital, necessitating a systems-level approach considering other services and the local context. Recommendations for local improvement initiatives and further research were developed. This study demonstrates the feasibility and value of a qualitative approach involving frontline staff in this context."

Development of a Measles Catch-Up Campaign: A Critical Public Health Initiative

Topic/dept – Health Protection

Author – Anita Ghafoor Butt

Co-Author – Yvonne Morrissey

Co-Author – Lucy Jessop

Co-Author – Maurice Kelly

The Abstract

"Development of a Measles Catch-Up Campaign: A Critical Public Health Initiative.

In March 2024, the MMR catch-up campaign was launched as an urgent response to address immunity gaps and prevent measles outbreaks. The Campaign utilised a multi-faceted approach to reach the target population and aimed to increase vaccine coverage. Emphasis was placed on engaging with individuals online, across social media, radio advertising and broadcast media who may have been missed by routine immunisation programmes, particularly in regions with known outbreaks.

The Campaign contributed to over 11,000 people coming forward to get the vaccine. There were 22,975 page views to the HSE MMR web page since it went live. An Omnibus survey conducted in April showed that 1 in 2 people recalled hearing the radio advert – this is well above HSE radio norm (30%). The social media campaign reached 1,364,947 people. The Campaign secured extensive media coverage across print, broadcast and online media, both national and regional.

By increasing vaccine coverage, the campaign contributed to the overall goal of protecting vulnerable populations.

In conclusion, campaigns can bridge immunity gaps and safeguard communities from measles."

TikTok & Teens: An exploration of harmful and inappropriate content recommended by the social media algorithm

Topic / Dept: Health Improvement

Author: John Gannon

Co Author: Freya O'Hanlon

The Abstract:

Children have significant access to inappropriate and harmful content through social media platforms.(1) TikTok's website lists "Youth Safety and Well-being", "Safety and Civility" and "Mental and Behavioral Health" policies which ban depiction of certain content to protect users.(2)

Four dummy TikTok accounts were created with teenage age profiles (13M, 13F, 15M, 15F). Each "user" scrolled the For You Feed for three hours, only stopping to watch reels related to themes of conflict, mental health, drugs & alcohol, diet & body image, respectively. They never clicked, liked, searched or followed accounts.

Screen recording captured all videos shown. Over 12 hours, 128 videos violated TikTok's policies: 23 for 13M, 36 for 13F, 44 for 15M, 25 for 15F. The most common inappropriate themes were suicide, disordered eating and hate speech.

Social media companies like TikTok earn billions in advertising revenue and have largely been allowed to self-regulate in restricting harmful content. This study demonstrates that TikTok's safety policies for youth are regularly violated by the algorithm's recommendations. Regulatory authorities must take firm action against these companies and strengthen measures to protect children from online harm.

Enhanced surveillance of Pertussis cases in the South West to monitor Pertussis epidemiology and disease burden

Author – Juliette Rolls

Co-Author – Maeve McEnery

Co-Author – Hannah Mary Teresa Sheahan

Topic/Dept – Health Protection

Abstract

"Pertussis has reemerged in Ireland after years of limited circulation, cases of pertussis occur in individuals of all ages but severe cases usually occur in children.

The purpose of this study is to use enhanced surveillance data to examine the burden of pertussis disease in Cork and Kerry.

Data from 1st January to 02nd October 2024 were extracted from the Computerised Infectious Disease Reporting (CIDR) system and classified according to the national pertussis case definition 1 and descriptive epidemiological analyses were performed.

Of the cases notified 42% were admitted to hospital and of these 68% had respiratory coinfections. The vaccination status was known for 79% of hospitalised cases and of these only 33% were fully vaccinated. The median length of hospital stay for pertussis cases was 4 days (range: 1-9 days).

Pertussis hospital admissions particularly in younger children with respiratory coinfections require continuous enhanced surveillance. Vaccination (including maternal vaccination) remains an effective intervention to protect against disease burden and severity. "

Narrative review of the impacts of social media, screens and smartphones on child & adolescent health

Author – John Gannon

Co-Author – Freya O’Hanlon

Co-Author – Catherine Lynch

Author

Social media (SM) and smartphone usage has increased dramatically among minors in recent years. Various control measures are being considered. This review evaluated the latest evidence of these technologies' health effects on children.(1)

Literature search was conducted in PubMed, including studies published in English from 2019 onwards, with titles containing non-MeSH search terms from three categories: 1. (social media, smartphone, screen use, Instagram, TikTok); 2. (health, addiction, impact, harm, disorder, benefit, improve); 3. (infant, child, children, teenager, adolescent, school).

Of 192 results, 85 were included, and categorised into 10 themes according to measured outcome: mental health (18), physical health (8), risk behaviours (4), diet (3), relationships (8), sleep (5), smartphone and SM addiction (17), school performance (3), access to information (4), apps / SM for health improvement (15).

Most studies demonstrated negative health outcomes for children from SM and smartphone usage, particularly for mental health and family relationships. Positive outcomes mainly related to specific health improvement smartphone apps. These findings can inform policy for regulation of smartphone and SM usage among minors.

Tailored Public Health Response to Tuberculosis Outbreak in Dublin International Protection Accommodation Setting

Topic/Dept – Health Protection

Author – Mark McLoughlin

Co-Author – Ruth McDermott

Co-Author – Douglas Hamilton

Co-Author – Sonja Moore

Co-Author – Parvathi Theyagarajan

Abstract

"On 25/04/2024, the Irish Mycobacteria Reference Laboratory (IMRL) identified a cluster of two tuberculosis (TB) cases that were linked by whole genome sequencing (WGS) between 24/02/2023 and 26/03/2024, during which period both cases were resident at a large International Protection Accommodation Services (IPAS) setting in Dublin.

Public Health Dublin & Midlands (PHDM) convened an incident management team (IMT) and performed a site visit and risk assessment. Given the significant representation of migrants from high TB-incidence countries, an information and screening campaign using on-site chest x-rays (CXR) was offered to residents and staff using Safetynet Primary Care's (SNPC) mobile CXR unit.

Six separate sessions were hosted by SNPC between 15/07/24 – 27/07/2024 and supported by PHDM. In total, 133 CXRs were conducted (18 staff and 115 residents). 9 were reported as abnormal but no new cases of active TB were identified.

This initiative offered a tailored screening response to a TB outbreak within a congregated IPAS setting. It combined an on-site, highly sensitive screening tool for active TB case finding (1) alongside raising TB awareness within an affected migrant population from high TB incidence countries."

The Use of an Engagement Event for Team Development and Planning Future Work in a Department of Public Health

Topic/Dept – Health and Wellbeing

Author – Shaunna Kelly

Co-Author – Laura Smith

Co-author – Aileen Cahill

Co-Author – Fionnuala Cooney

Co-Author – Una Fallon

Abstract

"In the blended working era, it is essential in healthcare for the prioritisation of staff team building, engagement and participation, to enable quality service provision.

Following a two-year Health and Wellbeing Programme which supported staff through reform, the Department of Public Health, HSE Dublin and Midlands held its fifth staff Engagement Event in September 2024. The aims included team development and planning of future work. Tuckman's Stages of Team Development was the guiding framework.¹ We used a variety of activities including group discussions about the four Integrated Health Area populations, and across the 3 Departmental Multidisciplinary Teams using visual aids.

Key departmental successes included plans to regionalise TB services, and the ongoing development of the established region-wide Reference Research Ethics Committee. Future priority areas include access to and management of data.

This Engagement Event with the in-house facilitation of team building activities resulted in the identification of successes, challenges and agreed priority actions for our 2025 Departmental operational plan and used a methodology which could be applied across other departments and services."

An after-action review of the public health response to respiratory pathogens during winter 2023/2024 in Ireland

Topic/Dept – Health Protection

Author – Adele McKenna

Co-Author – Mairead Madigan

Co-Author – Amy Griffin

Co-Author – Leanna Hunt

Co-Author – Diane Bredin

Co-Author – Lisa Donegan

Co-Author – Joan O'Donnell

Co-Author – Augustine Pereira

Abstract

"An after-action review (AAR) of the public health response to respiratory pathogens for the 23/24 season in Ireland (winter response) was undertaken by National Health Protection to identify lessons learned in order to inform future winter planning.

An online survey was conducted with relevant stakeholders to identify what went well, what didn't go well and recommendations for the 24/25 season. Data were analysed using quantitative and qualitative methodologies. Respondents (n=235) commended respiratory virus guidance, infection prevention and control support, respiratory virus surveillance reports and modelling data which were found to be useful, clear and well-received. Areas for improvement included further promotion of vaccines to healthcare workers and the general public, rapid assessment of patients in residential care facilities, streamlined processes for swab ordering/transportation and timeliness of results in nursing homes, and production and dissemination of biostatistical modelling data. The survey highlighted a lack of awareness of the HPSC respiratory virus datahub. A multistakeholder health protection forum has been established to review, prioritise and action the recommendations from the AAR for the 24/25 season."

Staff engagement as part of 'Your Health and Wellbeing' (H&W) Committee in the National Immunisation Office (NIO)

Topic/Dept – Health and Wellbeing

Author – Louise Lyons Mehl

Co-Author – Anita Gafoor Butt

Co-Author – Christine White

Co-Author – Tom Barrett

Co-Author – Leanne Kane

Co-Author – Peter Darcy

Co-Author – Ciaran Duignan

Co-Author – Sylwia Janiec

Co-Author – Chantel Migone

Co-Author – Louise Marron

Co-Author – Lucy Jessop

Abstract

The purpose of the health & wellbeing (H&W) Committee in the National Immunisation Office (NIO) is to develop and sustain a workplace H&W promotion plan aligned with the Health Services Healthy Ireland Implementation Plan 2023-2024. The aim of this study was to encourage staff engagement to identify priority activities for the NIO H&W committee.

Using the findings of an action plan informed by H&W committee staff scoping meetings, and input from the Senior Management Team in the NIO, a staff engagement survey was developed. The survey included questions on physical exercise and nutrition, cultural inclusivity and team bonding. A descriptive analysis of survey results was undertaken using Microsoft excel.

The response rate was 61% (22/36). Over 90% of respondents were interested in food based team events, lunchtime classes and team building activities. Over 80% were interested in standing desks and 75% were interested in a workplace communal fund for food.

The findings of this survey have informed the development of initiatives to promote health

and wellbeing in the workplace and have encouraged engagement and participation in activities. This initiative can be replicated in other Public Health Department.

Is lower cervical screening uptake in older women related to knowledge? Findings from a new online national survey

Topic/Dept – Health Service Improvement

Author – Mairead O'Connor

Co-Author – Patricia Fitzpatrick

Co-Author – Therese Mooney

Co-Author – Grainne Gleeson

Co-Author – Noirin Russell

Abstract

"CervicalCheck screening coverage decreases with age; the eligible age was recently extended to 65y. Understanding views and knowledge of eligible women about cervical screening is important to improve coverage.

An online survey examined cervical screening knowledge. Chi-square test was used.

808 women completed the survey; 25-65y (n=405; 50%) 25-44 (n=176; 22%) 45-54 and 55-65 (n=227; 28%). 55-65y were more likely than younger to agree that "regular screening attendance was important" (82%, 78% & 73% resp; p=0.003) 2); to be "very likely to attend their next appointment" (81% vs 73% & 78%; p=0.002); to agree "it is very important to continue regular screening post-menopause" (60% vs 48% & 41%; p<0.001) and to disagree that "you don't need to attend cervical screening if you are not sexually active" (88%, 86% & 76% resp; p<0.001). More women 25-44 (27%) disagreed that "cervical screening is for women who do not have symptoms of cervical cancer" than older age groups (21% in both p<0.001).

Although attendance at CervicalCheck is lower in those >50y, knowledge and awareness about cervical screening was highest in this age group. We need to maintain high uptake in younger women alongside improving cervical screening knowledge."

A survey of Senior Medical Officers' training needs and career intentions in the Health Service Executive

Topic/Dept – Health Service Improvement

Author – Philippa White

Co-Author – Mary Bernadette Condon

Co-Author – Alice Quinn

Co-Author – Grace McHugh

Co-Author – Barbara Gilmer

Co-Author – Paul Kavanagh

Co-Author – Hannah Mary Theresa Sheahan

Co-Author – John Cuddihy

Co-Author – Catherine Kelleher

Abstract

"Senior Medical Officers (SMOs) have played an invaluable role in public health in Ireland for decades. As the healthcare system undergoes reform, it is important the SMO role is adapted and fit for purpose. This survey sought to assess SMOs' training needs and career intentions.

We designed and piloted a 25-question self-administered survey. It was disseminated via email in June 2024 and all SMOs employed in public health were eligible to participate. Responses were pseudonymised and data were analysed descriptively.

45 of 61 eligible SMOs responded (74%). 23 SMOs (51%) have worked in public health for ≥ 4 years and 20 (44%) have a master's in public health. SMOs' most common roles were responding to notifiable diseases ($n=34$, 76%), participating in on-call health protection ($n=30$, 67%) and immunisation-related work ($n=27$, 60%). 21 SMOs (47%) were satisfied with training at induction or on an ongoing basis, but just 20 (44%) were clear about their training needs. 38 SMOs (84%) want to receive training in areas outside their current role and 39 (87%) want to develop a special interest in public health.

These findings will inform enhanced training of SMOs and delineation of their scope of practice in the future."

Enablers and barriers to measles outbreak control in a vulnerable population with an outbreak example

Topic/Dept – Health Protection

Author – Sonja Moore

Co-Author – Sile Kelly

Co-Author – Ciara Conlon

Co-Author – Christopher Ibanga

Co-Author – Desmond Hickey

Abstract

Measles is a highly infectious disease. Through an outbreak (OB) example, we explore enablers and barriers to measles OB management in a minority community in the Dublin Midlands area.

OB case notes were reviewed, events detailed on a timeline, and spider diagram created. A process map was used to identify enablers and barriers at each stage.

Multiple barriers affecting OB control in the example setting were identified. Only 28.5% of household contacts of the index case were age-appropriately vaccinated creating favourable conditions for transmission. Lack of space for isolation was a significant barrier due to crowded living conditions. There were difficulties in reaching close contacts due to phone sharing, or use of messaging apps. Enablers identified included good MDT collaboration and counselling by public health resulting in vaccine acceptance despite previous vaccine hesitancy.

Many barriers identified are deep-rooted and systemic, but key learnings can guide improvement. Both barriers and enablers underscore the importance of the MDT approach in vulnerable settings. We recommend enhancing collaboration between disciplines, particularly with social inclusion services, to improve outcomes in minority populations.

International survey of 18-34-year-olds' opinions on tobacco endgame measures and e-cigarette regulations

Topic/Dept – Health and Wellbeing

Author – John Gannon

Co-Author – Ellen Cosgrave

Co-Author – Paul Kavanagh

Co-Author – Maya Jones

Co-Author - Zubair Kabir

Abstract

"Tobacco endgame strategies are gaining momentum globally.(1) This online survey of 18-34-year-olds evaluated opinions on a series of potential tobacco endgame measures and regulations of e-cigarettes, to inform policy.

Survey development was supported by the World Federation of Public Health Associations and HSE Tobacco Free Ireland team. The survey was distributed through international networks, employing convenience sampling.

Of 295 responses in 34 countries, there was majority support for 14 of 20 endgame measures, including raising tobacco legal age to 21 (68%), reducing nicotine content (73%) and restricting tobacco sales licenses (70%). 73% would support a tobacco-free generation law in their country. E-cigarettes were viewed as an important health risk (83%) and as or more addictive than cigarettes (78%). 65% believed e-cigarette harms outweigh benefits, and stricter regulations on e-cigarettes were supported e.g. advertising restrictions (86%), higher taxation (70%) banning disposable vapes (76%).

There was strong support among this young adult cohort for a range of endgame measures proposed, and for tobacco-free generation legislation. Most recognised health risks of e-cigarettes and favoured stricter regulation."

A concerning global rise of early-onset colorectal cancer- but what about Ireland? An analysis of CRC epidemiology in Ireland 1994-2021

Topic/Dept – Health Intelligence

Author – Sile Kelly

Co-Author – Heather Burns

Abstract

Colorectal cancer (CRC) accounts for 10.5% of invasive cancer diagnoses and deaths. Recent international evidence has suggested that incidence rates (IR) in young people are rising. The aim of this work is to characterise the epidemiological situation of early-onset CRC (EoCRC) in Ireland between 1994-2021, with comparison to later onset CRC (LoCRC).

Tumour data were received from NCRI. EoCRC (15-49 years) was compared with LoCRC (≥ 50 years). Demography, route to diagnosis, tumour location, histopathology, staging and treatment were compared using univariate analysis. Incidence rate trends were examined with Joinpoint regression. Survival analysis was carried out using Kaplan-Meier and Cox regression.

People diagnosed with EoCRC accounted for 7.1% of total tumour incidence. CRC IR for all ages is declining since 2010. Rectal cancer IR are rising in people < 50 years. People with EoCRC had more intensive treatments and better overall survival.

A paradigm shift in epidemiology has significant public health implications for cancer strategies, policies, and health service provision. Effective cancer control must adapt to emerging epidemiological evidence to meet the needs of the population across the disease continuum.

Opportunistic MMR vaccination in a paediatric cohort: responding to new challenges

Topic/Dept – Health Protection

Author – Laura Mannion

Co-Author – Sarah Geoghegan

Abstract

In March 2024, a national incident management team formed to respond to measles outbreaks in Europe. A catch-up MMR vaccination campaign was commenced in general paediatric clinics at CHI at Crumlin and the Lynn (social inclusion) clinic at CHI at Temple Street. This study explored pathways allowing opportunistic MMR vaccination to be incorporated into routine paediatric outpatient appointments.

Outpatients attending outreach clinics were screened, and directly offered MMR vaccination if eligible. Inpatients were also screened during their hospital stay. Nurse specialists delivered vaccinations. If a second dose of MMR was required, this was given at the next clinic visit.

Twenty-one MMR doses were delivered between April – June 2024; nineteen were given at the Lynn clinic. Three were delivered to siblings of patients.

In-hospital vaccination helps optimize each healthcare encounter, particularly when patients may struggle to access primary care. Staffing shortages and additional training requirements represent two major barriers to opportunistic vaccination. Integration of vaccination administration modules into training requirements could supply clinical settings with appropriately trained personnel.

Assessing inclusion of Health Equity Stratifiers in National Clinical Audits

Topic/Dept – Health Intelligence

Author – Olga Brych

Co-Author – Olga Brych

Co-Author – Maria Kehoe

Co-Author – Fionnola Kelly

Abstract

Health equity stratifiers (HES) are established factors that are used in analysing disparities in health. By including HES in clinical audit the degree to which best practice standards are met, for groups affected by health inequity can be measured. This study aims to assess the inclusion of HES in clinical audits conducted by the National Office of Clinical Audit (NOCA).

The inclusion of HES in NOCA's clinical audits and the processes used to introduce, analyse, and report health inequity were evaluated. Data dictionaries were cross-referenced with HES. The Irish Potential Donor Audit (IPDA) was selected as an exemplary model for how HES can be effectively integrated and utilised in clinical audit.

20% of HES is currently collected and reported in NOCA. The IPDA stands out as a leader in this area, with >95% data completeness for ethnicity and 100% for country of birth. 84% of potential donors from the 6 participating hospitals were born in Ireland (1).

The IPDA's valuable insights and recommendations based on its experience in including HES within a clinical audit will be provided. There is an opportunity to replicate this success in the IPDA and to include HES in all NOCA audits and registries to collect and report.

Transforming Healthcare: The Role of the NOCA Dashboard in Quality Improvement

Topic/Dept – Health Intelligence

Author – Fionnola Kelly

Co-Author – Olga Brych

Co-Author - Seif Elhadid

Co-Author – Louise Brent

Abstract

"The National Office of Clinical Audit (NOCA) Data Dashboards have been pivotal in enhancing healthcare quality improvement (QI) and patient safety through the systematic collection and reporting of clinical data across Irish healthcare institutions. This study explores its development, impact on hospitals and clinicians, and future enhancements to incorporate population health information, make informed decisions and implement evidence-based practices.

The clinical audits included were heart attack, stroke, and hip fracture. The dashboard's effectiveness in improving QI was assessed by comparing key quality indicators (KQIs) between the years of 2020 and 2023, pre and post Dashboard implementation.

The implementation of the Dashboard was influential in care process and outcome improvements. The median time, door to CT scan has decreased from 64 to 52 minutes for stroke. Referral for smoking cessation increased from 85% to 91%. Percentage of patients mobilised by physiotherapist increased from 78% to 87%.

The real-time NOCA Dashboard furnishes healthcare providers with timely access to clinical audit data, enabling them to monitor performance, improve decision-making, and increase accountability".

Does the CE marking on medical devices mean they are safe and effective?

Topic/Dept – Health Protection

Author – Kathleen Rose Harkin

Co-Author – Jan Sorensen

Co-Author – Steve Thomas

Abstract

The Health Service Executive (HSE) recently issued a national patient safety alert stating that medical devices (MDs) used in the HSE must be CE marked.(1) This is a legal prerequisite to their sale in the European Union (EU).(2) This study sought to identify the CE marking requirements and explore their implications for patient safety.

We conducted a documentary analysis of EU legislation and policy documents governing the sale of MDs in the EU, analyzing the CE marking requirements from a patient safety perspective.

The key legal requirements are set out in Annex I of the Medical Device Regulation.(2) Manufacturers must classify their MDs, establish quality and risk management systems, assess MDs' benefit-risk balance, plan post-market surveillance, and for high-risk/implantable devices, pay designated organisations to check their compliance before affixing the CE marking.(2)

This ensures the establishment of systems promoting high quality and low risk, but neglects outcomes evaluation. MDs are required to be safe and effective, but with a dearth of the necessary evidence, implementation of this requirement is poor, so that CE marking does not guarantee the effectiveness or safety of MDs. Better evidence is needed for MDs.

An audit of TB surveillance data completeness in Public Health HSE Dublin and North East – 2019 to 2023

Topic/Dept – Health Protection

Author – Ciara Carroll

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Co-Author – Elizabeth O'Donoghue

Co-Author – Jayne Prendergast

Co-Author – Helen Smyth

Co-Author – Mary O Meara

Abstract

Tuberculosis (TB) surveillance data are vital for assessing disease burden and national and international trends. Enhancing surveillance is a goal of Ireland's TB strategy. This audit assessed selected surveillance variable completeness in Dublin and North East (DNE) over five years.

A retrospective review of 24 variables in the Computerised Infectious Disease Reporting (CIDR) system was conducted for confirmed TB cases notified to DNE from 01/01/2019 to 31/12/2023. Reconciliation between clinical records and CIDR was performed for cases notified in 2023.

Variable completeness ranged from 22% to 100%, with 5 variables meeting the audit standard of $\geq 80\%$ completeness across the study period. The number of variables meeting the standard decreased from 14 in 2019 to 4 in 2021 and 2022. Variable capture in clinical notes but not CIDR ranged from 9-90%. If all information captured in clinical notes was recorded on CIDR, 6 additional variables would have met the audit standard.

Declining data completeness from 2019 to 2023 reflects the impact of COVID-19 and

changes in personnel and practices. Improved reconciliation between clinical notes and CIDR is needed to enhance data quality and inform TB control regionally and nationally.

Enhancing immunisation uptake in the Traveller community: A scoping review to understand barriers and facilitators

Topic/Dept – Health Protection

Author – Fiona McGuire

Co-Author – Chantal Migone

Co-Author – Sarah Solomon

Co-Author – Christine White

Co-Author – Aileen Kitching

Co-Author – Grainne Begley

Abstract

Immunisation is a cost-effective public health intervention, yet in some areas Primary Childhood Immunisation Programme (PCIP) uptake has fallen below 95%, raising concerns about the resurgence of vaccine-preventable diseases. This year, the National Immunisation Office received reports from GPs, Public Health Nurses, Public Health colleagues, and Traveller Community Health Workers about increased PCIP safety concerns among Travellers. Travellers in Ireland face significant health inequities, including an infant mortality rate 3.6 times higher than the general population, and 10% of children not reaching their 2nd birthday. Protecting the Traveller community through immunisation is crucial. This study aimed to identify barriers and facilitators to immunisation uptake among Travellers, in line with the National Traveller Health Action Plan. A literature review and structured interviews with key stakeholders were conducted. Thematic analysis identified key themes: specific safety concerns, lack of culturally appropriate information, access and systems barriers, and the role of “word of mouth”. Findings suggest co-creating and testing targeted interventions could enhance immunisation uptake.

Developing the WHO's approach to assessing the global status of healthcare facility accreditation practices, processes and systems

Topic/Dept – Health Service Improvement

Author – Ellen Cosgrave

Co-Author - Blerta Maliqi

Abstract

Countries are increasingly seeking the WHO's advice on healthcare facility accreditation, but there is a lack of understanding of the scope, scale, and impact of healthcare facility accreditation on quality of care.¹ To address this, in February 2024 the WHO initiated a global study to assess the status of accreditation practices, processes, and systems worldwide.

A framework for analysis, along with a study instrument and protocol, was developed through systematic review of existing accreditation standards and frameworks, including WHO, International Society for Quality in Health Care and Joint Commission International standards. These were further refined through WHO internal advisory group consultation while face and content validity was tested with external experts.

The resulting study instrument is designed to collect data on health system readiness to implement accreditation, implementation strength, and the perceived impact of accreditation. Implementation of the study will involve a global survey in all countries, a detailed survey in selected countries, and in-depth country case studies.

This foundational work will guide future data collection and analysis to inform the WHO's role and position on accreditation.

The Role of Data Visualisation Best Practice in Healthcare: An International Literature Review

Topic/Dept – Health Service Improvement

Author – Stephen Barrett

Co-Author – Heike Vornhagen

Co-Author – Ciara Carroll

Co-Author – Aparna Keegan

Co-Author – Jennifer Martin

Abstract

Healthcare dashboards aim to turn complex data into actionable visuals that enhance insights and positively affect performance. However, evaluations note limited return on investment and inconsistent guidelines for creating such dashboards. Recognising this lack of standardised practices in healthcare, we conducted a literature review to identify dashboards development guidelines within health systems. We focused on the design of dashboards from conception to evaluation, examining pre-existing guidelines or those that can be inferred from existing dashboard development. Common themes for developing dashboards were identified, notably the importance of understanding the context of use and requirements for different user groups. Undertaking the co-design process with end-users and taking an iterative approach involving prototypes and multiple rounds of user feedback were also key to successful dashboards. The findings from this review will be used to inform guidelines as part of a larger piece of work to create effective and user-centred dashboards for the Irish healthcare system. Future work will involve collaborating with stakeholders to refine the guidelines and support dashboard design and implementation across health services.

A complex chickenpox outbreak across multiple congregate settings in Ireland: Key learnings from an After Action Review

Topic/Dept – Aine Varley

Co-Author – Martina Paciarotti

Co-Author – Vikram Niranjana

Co-Author – Mary O Meara

Co-author – Suzanne Cotter

Abstract

In June 2024, Public Health HSE Dublin North East declared a chickenpox outbreak in a congregate setting used to accommodate International Protection Applicants. By outbreak closure in September 2024, 74 chickenpox cases had been reported (46 cases among residents in the index facility, and a further 28 linked cases reported across four Public Health regions).

Following outbreak closure, an After Action Review (AAR) was held to identify key opportunities for learning and improvement. The AAR was held across a single afternoon in October 2024, and conducted in line with HSE guidance. All members of the Incident Management Team (IMT) were invited to contribute.

Strengths of the response included: the breadth and diversity of the IMT; creativity and flexibility in implementing outbreak control measures; the value of up-to-date data to inform action. Challenges included: building a shared understanding of roles and aims across sectors; improving communications to all stakeholders; balancing the opportunity cost of additional clinical services versus addressing structural factors specific to the accommodation site.

Synthesis of the AAR findings is ongoing; outputs will be used to inform recommendations for future practice

A Collaborative Exploration of Population Health Across the HSE National Clinical Programmes

Topic/Dept – Health Service Improvement

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Abstract

The term population health is increasingly prominent across health service policy, design and delivery. This project aimed to explore population health alignment across the HSE National Clinical Programmes (NCPs). This is part of a collaboration between the National Health Service Improvement Team (Public Health) and Clinical Design and Innovation to increase the population health impact of NCPs. Working definitions of, and principles for, a population health approach were created based on a rapid literature review, theme identification, and consensus discussions. Using these principles, an ‘as-is’ exploration of population health alignment was undertaken, through desktop reviews and semi-structured interviews with a purposively selected sample of NCPs, and a survey of all NCPs. Some evidence of population health alignment was observed across the NCPs. While there isn’t a one-size-fits-all for such alignment, a common foundation for a population health approach was identified as crucial to support consistency in clinical design and improvement. This baseline analysis of the population health improvement approach within NCPs is the starting point on the collaborative journey to enhance NCPs’ impact on improving population health.

The Resilience Edge': An Interprofessional Approach to Mental Health and Stress Management for Public Health Students at UCD

Topic/Dept – Health and Wellbeing

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Abstract

"Mental health challenges are prevalent among students including Public Health (PH) students and impact academic performance and wellbeing (1). A Resilience Edge workshop at the start of academic year 2024-25 at University College Dublin (UCD), aimed to enhance mental resilience and stress management by understanding basic neurophysiology and practical activities of group exercises, meditation, time management and mental health economics.

The workshop included exercises on identifying personal triggers, understanding the brain's role in emotional regulation and budgeting for mental health interventions. The Perceived Stress Scale (PSS-10) and WHO-5 Well-being Index assessed changes in stress and well-being.

Sixty-four Master of Public Health students from 27 countries participated: 41 completed pre- and post-workshop inventories. Preliminary data suggest improvements in stress management, well-being, and vitality, with participants reporting increased energy and clarity. Further analysis is underway to explore the impact of the workshop.

The diverse group provides a global perspective on resilience strategies. Initial findings suggest value in integrating similar programmes into PH education to build resilience among students."

Public health benefits of monitoring measles IgG seroprevalence among children in Ireland

Topic/Dept – Health Protection

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Abstract

Measles seropositivity among children in Ireland has not been calculated since 2003 (1). We prospectively investigated measles seroprevalence among children aged 3-17 years in Ireland in 2024, during a time when measles cases & outbreaks were increasing nationally and globally.

In total, 2,924 anonymised paediatric residual serum samples, sourced from primary care between 2 February 2024 and 19 June 2024, were tested for measles IgG antibodies. Seroprevalence was calculated by sex and age group and adjusted for laboratory assay sensitivity & specificity.

Overall, 90.3% (95% CI=89.2-91.4) of children were seropositive, with no significant difference between males and females. Children aged 14-17 years (87.6%; 95%CI=85.5-89.4) and 10-13 years (89.1%; 95%CI=86.6-91.3), had lower seropositivity when compared to younger children aged 6-9 years (94.2%; 95%CI=91.7-95.9) and 3-5 years (94.9%; 95%CI=92.4-96.6).

Suboptimal (<95%) seropositivity among older children suggested greater susceptibility to measles infection. This is not reflected in existing measles vaccine uptake data, highlighting the utility of seroprevalence data to identify potential immunity gaps in the population and to inform targeted immunisation campaigns.