

Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Knowledge Sharing and Impact Assessment

Health Technology Assessment Directorate



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Introduction

Health technology assessments (HTAs) are designed to inform safe and effective health policies that are both patient-focussed and achieve best value. HTA is a multidisciplinary activity and is resource-intensive. The work of the HTA directorate in 2021 was broadly classified into six main work streams:

- Health technology assessment (HTA)
- Health Research Board Collaboration in Ireland for Clinical Effectiveness Reviews (HRB-CICER)
- Evidence for Policy (EfP)
- National Screening Advisory Committee (NSAC) evidence synthesis
- COVID-19 evidence synthesis
- Ionising Radiation (IR)

HTA typically informs investment and disinvestment decisions by the Minister for Health and the Health Service Executive (HSE). HRB-CICER conducts evidence synthesis to inform the development of National Clinical Guidelines and National Clinical Audit. The EfP Team was established within the HTA directorate in 2018 following a request from the National Patient Safety Office (NPSO) in the Department of Health. The EfP Team, part-funded by an extension of the HRB-CICER grant agreement, is responsible for implementing evidence synthesis programmes to deliver high-quality evidence to support the development of policy by the Department of Health.

Since 2021, HIQA has provided evidence synthesis (including HTAs) and evidenceinformed advice to support the work of the National Screening Advisory Committee (NSAC). The NSAC is an independent advisory committee which advises the Minister and Department of Health on all new proposals for population-based screening programmes and revisions to existing programmes.

COVID-19 emerged in December 2019 as a new disease and the evidence about it continues to evolve since its emergence. In March 2020, HIQA began to provide evidence synthesis to support the national public health response to the COVID-19 pandemic at the request of the Department of Health. A COVID-19 Evidence Synthesis Team was established in HIQA's HTA Directorate to provide evidence synthesis to support the work of the National Public Health Emergency Team (NPHET) and other groups in the Department of Health and HSE working on the national public health response. In September 2020, HIQA commenced providing evidence-based advice directly to NPHET on behalf of the Minister for Health.

Directive 2013/59/Euratom (Basic Safety Standards for Protection against Dangers Arising from Medical Exposure to Ionising Radiation) was transposed into Irish law on 8 January 2019. Under the new regulations HIQA has responsibility for the generic justification of new types of practices involving medical exposure to ionising radiation (IR) as well as the review of existing practices under certain circumstances. HIQA also has responsibility for the specific justification of IR performed as part of a health screening programme or individual health assessment and to publish guidelines in relation to the screening of asymptomatic individuals outside of existing national health screening programmes. To fulfil HIQA's statutory responsibilities in relation to generic justification, HIQA established a new HTA Directorate function, the IR function, in Q4 2021. Work on the processes underpinning the function have commenced.

The impact or influence of HTA Directorate activity should be evaluated to assess its value, and whether its contribution to decision making is proportionate to the resources used to deliver it. Accordingly, this report follows the HTA knowledge sharing and influence measurement framework developed and approved by the Board in 2019. The framework outlined a broad set of metrics capturing different facets of knowledge sharing and influence across all HTA Directorate activity. This report documents the impact metrics for 2021.

Outputs

Outputs refer to knowledge generation which can include HIQA reports and publications, contributions to publications by other agencies, teaching and training, and other forms of dissemination such as conference presentations or peer-reviewed articles. The following lists outputs, categorised by deliverable type.

CO/	/ID-1	9 reports published
• (evider	nce summaries and advice provided to the NPHET on:
	0	Interventions in an ambulatory setting to prevent progression to severe disease in patients with COVID-19
	0	Review of measures to support those in self-isolation or restriction of
		movements
	0	Duration of protective immunity (protection from reinfection) following SARS- CoV-2 infection (4 versions)
	0	Groups in vaccine allocation group nine - those aged 18-64 years living or working in crowded conditions
	0	Policies relating to healthcare personnel who do not avail of COVID-19 vaccination
	Ο	Mandatory home quarantine and post-travel testing
	0	Public health measures to limit SARS-CoV-2 transmission at mass gatherings
	0	Interventions and health-related factors that prevent COVID-19 infection or
		minimise progression to severe disease
	0	Rapid antigen testing of asymptomatic individuals
• 1		ited discussions and accompanying advice documents provided to NPHET:
	0	Derogation of vaccinated healthcare workers
	0	Reducing the minimum age for mask wearing requirements and recommendations in COVID-19
	О	Respirator mask use by persons who are at higher risk from COVID-19
• i	interna	ational reviews of public health measures and strategies including:
	0	Antigen testing in asymptomatic individuals in community settings
	0	Public health measures and strategies to limit the spread of COVID-19
	0	Face masks and physical distancing
	0	Rolling review of international public health guidance in relation to the Omicron
		variant (B.1.1.529)
•	epide	miological analysis and modelling reports provided to NPHET
	0	Rapid Antigen Diagnostic Tests in meat processing plants
-	epide	miological analysis and modelling reports provided to COVID-19 Nursing Homes
	Expe	rt Panel
	0	Factors associated with outbreaks of SARS-CoV-2 in nursing homes
- (evider	nce summaries provided to the National Immunisation Advisory Committee
i	includ	5
	0	Duration of protective immunity following COVID-19 vaccination

- Duration of protective immunity following COVID-19 vaccination of healthcare workers
- Duration of protective immunity following COVID-19 vaccination of individuals with underlying conditions
- evidence synthesis provided to the Antimicrobial Resistance and Infection Control (AMRIC) team within the Health Service Executive (HSE)
 - Approaches to Personal Protective Equipment (PPE) modelling
- database of international public health measures provided to the Department of Health and the Health Protection Surveillance Centre three times weekly until 10 February 2021 and weekly thereafter
- international reviews of public health measures provided to the Department of Health and to the Health Protection Surveillance Centre including reviews of public health guidance:
 - o for residential care facilities in the context of COVID-19 (12 versions)
 - on protective measures for vulnerable groups in the context of COVID-19 (21 versions)

HTA and Evidence for Policy reports published

- Health Technology Assessment of Birth Cohort Testing for Hepatitis C
- Economic burden of antimicrobial resistance: An analysis of additional costs associated with resistant infections

NSAC reports published

- Review of processes in use to inform the expansion of newborn bloodspot screening programmes
- Review of international ethics frameworks used in policy-making in the context of screening
- Extended Interval Screening by the Diabetic RetinaScreen Programme in Ireland

Work commissioned by the European Centre for Disease Prevention and Control (ECDC)

- HIQA collaborated with the European Centre for Disease Prevention and Control on the Systematic review of the efficacy, effectiveness and safety of newer and enhanced seasonal influenza vaccines.
 - Five manuscripts based on this research were submitted for publication in a peer reviewed journal in 2021.
 - Presentation to the EU/EEA National Immunisation Technical Advisory Groups (NITAG) collaboration on 10 June 2021 in relation to the 'Systematic review of the efficacy, effectiveness and safety of newer and enhanced seasonal influenza vaccines'.

Contributions of sections to reports published/due for publication by the National Clinical Effectiveness Committee (NCEC)

Published

- National Clinical Guideline Management of Chronic Obstructive Pulmonary Disease (COPD)
 - o Systematic review
 - Budget impact analysis.
- National Clinical Guideline on sepsis management for adults (including maternity).

Awaiting publication

- a systematic review of clinical and economic literature on interventions to improve hand hygiene adherence to support the healthcare acquired infection guideline
- a systematic review of clinical and economic literature on single patient room accommodation compared to multi-bed rooms in acute settings to support the development of the healthcare acquired infection guideline
- a budget impact analysis of the intraoperative massive haemorrhage guideline.

Training delivered

- Embase training, HIQA
- Systematic reviews of economic evaluations, NUIG
- Royal College of Surgeons Ireland ISPOR (Professional Society for Health Economics and Outcomes Research) Student Chapter event: Health Technology Assessment in Ireland

Teaching delivered

- MSc in Pharmaceutical Medicine, Trinity College Dublin
- BSc Pharmacy, Trinity College Dublin
- MSc Health Economics, National University of Ireland Galway
- Diploma in Health Economics, Institute of Public Administration

Conference presentations given

- Workshop
 - K Cardwell, N Broderick, M Ryan, B Clyne, M Sharp. Rapid evidence synthesis to inform the national response to the COVID-19 pandemic in Ireland, European Public Health 2021

 K Walsh, Ryan M. Embedding Impact Evaluation in Health Technology Assessment: Successes and Challenges, Health Technology Assessment international (HTAi) 2021

Conference posters presented

- Oral presentation
 - Walsh KA, Spillane S, Comber L, Cardwell K, Harrington P, Connell J, Teljeur C, Broderick N, Ryan M, O'Neill M. The duration of infectiousness of individuals infected with SARS-CoV-2: a rapid review, SPHeRE 2021
 - Comber L, Walsh KA, Jordan K, O'Brien KK, Clyne B, Teljeur C, Drummond L, Carty PG, Harrington P, Ryan M, O'Neill M. Alternative clinical specimens for the detection of SARS-CoV-2: A rapid review, SPHeRE 2021
 - Larkin J, O'Connor L, Tyner B, Fawsitt CG, O'Neill M, Ryan M. A synthesis of internationally published guidance for residential care facilities in the context of COVID-19, SPHeRE 2021
 - Cardwell K, Ahern S, Tyner B, O'Brien K, Smith SM, Harrington P, Ryan M, O'Neill M. Evidence underpinning the categorisation of "extremely medically vulnerable" groups, who may be at risk of severe illness from COVID-19, G-I-N 2021

 Walsh K. Embedding Impact Evaluation in Health Technology Assessment: Successes and Challenges, HTAi 2021

- Poster presentation
 - Sharp MK, Forde Z, McGeown C, O'Neill M, Ryan M, Clyne B. Media coverage of evidence synthesis findings during the COVID-19 pandemic, SPHeRE 2021
 - Cardwell, K., Jordan, K., Byrne, P., Harrington, P., Ryan, M., & O'Neill, M. The effectiveness of non-contact thermal screening as a means of identifying cases of Covid-19: a rapid review of the evidence, SPHeRE 2021
 - Jordan K, Spillane S, Fawsitt CG, Walsh KA, Harrington P, Ryan M, O'Neill M.
 Operational considerations for near-patient testing alternatives for the diagnosis of current infection with SARS-CoV-2 in Ireland, SPHeRE 2021
 - Jordan K, Harrington P, Ryan M. Introduction of a childhood influenza vaccination programme in Ireland, SPHeRE 2021
 - Spillane S, Ahern S, Comber L, O'Neill M, Harrington P, Ryan M. Resumption of scheduled hospital care in Ireland following the first wave of COVID-19; an early guidance review, SPHeRE 2021
 - Quigley J, O'Neill M, Clyne B, Tyner B, Carty P, Smith SM, Ryan M. Identifying research gaps through guideline development, G-I-N 2021
 - Spillane S, Comber L, O'Brien K, O'Brien K, Tyner B, Harrington P, Ryan M. Review of processes in use to inform policy-making on the expansion of newborn bloodspot screening programmes, Society for Medical Decision Making 43rd Annual North American Meeting
- Conference abstract publications

- Clyne, B. and Ryan, M., 2021. Rapid evidence synthesis to inform the national response to the COVID-19 pandemic in Ireland. *European Journal of Public Health*, pp.244-244.
- Broderick N, Fawsitt CG, Tyner B, Larkin J, McCarthy M, Walsh KA, O'Neill M, Ryan M. COVID-19 Public Health Guidance Database. *European Journal of Public Health.* 2021 Oct;31(Supplement_3):ckab164-738.
- Broderick, N., Walsh, K.A., O'Brien, K.K., Smith, S.S., Harrington, P., O'Neill, M., Ryan, M. and Fawsitt, C.G., 2022. POSC124 Economic Burden of Antimicrobial Resistance: An Analysis of the Additional Bed Day Costs Associated with Treating Resistant Infections in Ireland. *Value in Health*, 25(1), p.S111.

Peer-reviewed publications

- Cardwell K, O'Neill SM, Tyner B, Broderick N, O'Brien K, Smith SM, Harrington P, Ryan M, O'Neill M. "<u>A rapid review of measures to support people in isolation or quarantine during the Covid-19 pandemic and the effectiveness of such measures</u>." *Reviews in Medical Virology* 2021: e2244.
- Murchu E, Teljeur C, Hayes C, Harrington P, Moran P, Ryan M. <u>Cost-Effectiveness</u> <u>Analysis of a National Pre-Exposure Prophylaxis (PrEP) Program in Ireland</u>. *Value in Health*. 2021 doi: 10.1016/j.jval.2021.02.005
- Murchu E, O'Neill S, Byrne P, De Gascun C, O'Neill M, Harrington P, Ryan M. <u>Comparative genomic analysis demonstrates that true reinfection following SARS-CoV-</u> <u>2 infection is possible</u>. *Journal Clinical Virology Plus* 2021 1 p.1-2.
- Murchu E, Spillane S, Byrne P, O'Neill, M, Harrington P, Ryan M. <u>Interventions in an ambulatory setting to prevent progression to severe disease in patients with COVID-19: a systematic review.</u> Annals of Pharmacotherpay. In Press
- Murchu E, Byrne P, Carty PG, De Gascun C, Keogan M, O'Neill M, Harrington P, Ryan M. <u>Quantifying the risk of SARS-CoV-2 reinfection over time.</u> *Reviews in Medical Virology*, p.e2260.
- [PREPRINT] O Murchu E, Marshall L, Hayes C, Harrington P, Moran P, Teljeur C, Ryan M. <u>Oral Pre-exposure prophylaxis (PrEP) to prevent HIV: a systematic review and meta-analysis of clinical effectiveness, safety, adherence and risk compensation in all populations.</u> https://doi.org/10.1101/2021.09.24.21264095
- Cardwell K, O'Murchu E, Byrne P, Broderick N, O'Neill SM, Walsh K, Smith SM, Harrington P, Ryan M, O'Neill M. <u>Pharmacological interventions to prevent COVID-19</u> <u>disease: a rapid review</u>. *Rev Med Virol.* 2021 Sep 28:e2299
- Clyne, B., Walsh, K.A., O'Murchu, E., Sharp, M.K., Comber, L., O'Brien, K.K., Smith, S.M., Harrington, P., O'Neill, M., Teljeur, C. and Ryan, M., 2021. <u>Using Preprints in</u> <u>Evidence Synthesis: Commentary on experience during the COVID-19</u> pandemic. *Journal of Clinical Epidemiology*. 2021 138 p.203-210.
- Sharp et al. <u>Evidence synthesis summary formats for Clinical Guideline Development</u> <u>Group members: A mixed-methods systematic review protocol</u>. *HRB Open*. 2021, 4:76

- Walsh KA, Tyner B, Broderick N, Harrington P, O'Neill M, Fawsitt CG, Cardwell K, Smith SM, Connolly MA, Ryan M. <u>Effectiveness of public health measures to prevent the</u> <u>transmission of SARS-CoV-2 at mass gatherings: a rapid review</u>. *Reviews in medical virology* 2021: e2285.
- Carty, P, Fawsitt, C, Gillespie, P, Harrington, P, O'Neill, M, Smith, S, Teljeur, C, Ryan, M. <u>Population-based testing for undiagnosed hepatitis C: a systematic review of economic evaluations.</u> *Applied Health Economics and Health Policy* 2021: 1-13.
- McCormick, C, Domegan, L, Carty, P, Drew, R, McAuliffe, F, O'Donohoe, O, White, N, Garvey, P, O'Grady, M, De Gascun, C, McCormick, A. <u>Routine screening for Hepatitis</u> <u>C in pregnancy is cost effective in a large urban population in Ireland: a retrospective</u> <u>study.</u> *BJOG: An International Journal of Obstetrics & Gynaecology* 2021.
- Cardwell K, Quigley J, Clyne B et al. Processes for updating guidelines: protocol for a systematic review, HRB Open 2021, 4:116
- Fawsitt CG, Lucey D, Harrington P, Jordan K, Marshall L, O'Brien K, Teljeur C. <u>A cost-effectiveness and budget impact analysis of C-reactive protein point-of-care testing to guide antibiotic prescribing for acute respiratory tract infections in primary care settings in Ireland: a decision-analytic model, *Family Practice*, 2021;, cmab123
 </u>
- Carty PG, McCarthy M, O'Neill SM, et al. <u>Laboratory-based testing for hepatitis C</u> infection using dried blood spot samples: a systematic review and meta-analysis of diagnostic accuracy. *Reviews in Medical Virology*. 2021;e2320
- Clyne B, Jordan K, Ahern S, WalshKA, Byrne P, Carty PG, Drummond L, O'Brien KK, Smith SM, Harrington P, Ryan M, O'Neill M. Transmission of SARS-CoV-2 by children: A Rapid Review. Accepted
- McAloon CG, Wall P, Butler F, Codd M, Gormley E, Walsh C, Duggan J, Murphy TB, Nolan P, Smyth B, O'Brien K, Teljeur C, Green MJ, O'Grady L, Culhane K, Buckley C, Carroll C, Doyle S, Martin J, More SJ. <u>Numbers of close contacts of individuals infected</u> <u>with SARS-CoV-2 and their association with government intervention strategies</u>. *BMC Public Health*. 2021 21(1):2238.
- McAloon CG, Wall P, Griffin J, Casey M, Barber A, Codd M, Gormley E, Butler F, Messam LL, Walsh C, Teljeur C. <u>Estimation of the serial interval and proportion of pre-</u> symptomatic transmission events of COVID- 19 in Ireland using contact tracing data. *BMC public health*. 2021 21(1):1-9.
- Madden JM, More S, Teljeur C, Gleeson J, Walsh C, McGrath G. <u>Population Mobility</u> <u>Trends, Deprivation Index and the Spatio-Temporal Spread of Coronavirus Disease</u> <u>2019 in Ireland.</u> *International Journal of Environmental Research and Public Health.* 2021 18(12):6285.
- Larkin, J., Foley, L., Smith, S.M., Harrington, P. and Clyne, B., 2021. <u>The experience of financial burden for people with multimorbidity: A systematic review of qualitative research</u>. *Health Expectations* 24(2) p.282-295.
- Sharp MK, Forde Z, McGeown C, O'Murchu E, Smith SM, O'Neill M, Ryanb M, Clyne B. Irish Media Coverage of COVID-19 Evidence-Based Research Reports From One National Agency. *Int J Health Policy Manag.* 2021 Dec 13.

Invited presentations given

- Plenary presentation
 - M Ryan. Public Health Economics. ISPOR 2021 Annual Meeting
- Invited oral presentation
 - M Ryan. HIQA's evidence synthesis work to support the public health response during the COVID-19 pandemic. Irish Society of Clinical Microbiologists
- Invited panel discussion
 - M O'Neill. Impact of Covid-19 Amongst Cancer Patients and Survivors from an economic and social perspective, Responses & Transitions – How can we do better? Panel discussion

Vignette 1

The National Screening Advisory Committee (NSAC) has outlined that an ethics framework will provide an important structure to support evaluations and deliberations by NSAC in relation to population-based screening programmes. At the request of NSAC, the HIQA evaluation team conducted a review of international ethics frameworks used in policy-making in the context of screening. This comprehensive review examined countries, regions and international agencies, which had been noted in previous reviews to have in place clearly documented decision-making processes in relation to screening.

The NSAC's Chairperson Prof Niall O'Higgins noted in the Chairperson's note on 21 October 2021:

• "The Committee commended HIQA on an excellent report which will be valuable in informing the next stage of the work to develop an Ethics Framework for NSAC"

During the 21 October 2021 meeting, the Chair gave the following oral feedback:

- 'lost in admiration for the HIQA team for developing this document'
- 'Enormous, prodigious amount of work, huge effort and skill gone into its development'
- 'Have to acknowledge the work of everyone involved in this'
- 'This work must not be shelved and must be an integral part of all work done related to screening'

The feedback highlights the close working relationships with healthcare stakeholders that have been fostered during the course of our work, and the clear appreciation of those stakeholders for the expert methodological input provided by the HTA NSAC function.

Vignette 2

In September 2020, HIQA commenced providing evidence-based advice directly to NPHET on behalf of the Minister for Health. To inform the development of the advice to NPHET, a COVID-19 Expert Advisory Group (EAG) comprising nominated representatives from the relevant clinical and public health stakeholder groups, patient representation and methodological expertise was established.

In response to the work conducted by the COVID-19 team feedback from the EAG membership in 2021, EAG members commented:

- "I would like to take this opportunity to thank you and your colleagues in HIQA for the incredible volume of work that they have conducted over these past months and for the excellent organisation that has gone into the EAG. I very much hope to get the opportunity to work with you and your colleagues again on future initiatives."
- "I would like to thank you and the team for the excellent work that you have carried out during the pandemic – the quality of the work is amazing, and so comprehensive"
- "The work of the group, and in particular of the HIQA team, has been most impressive and efficient – it was a pleasure to have been involved in this work."

The feedback provided indicates that there is a high degree of satisfaction with the work of the HIQA COVID-19 Evidence Synthesis Team, and this is frequently stated by members of the COVID-19 Expert Advisory Group.

In addition to the work presented to the COVID-19 EAG the COVID-19 team also conducted two ongoing rapid reviews of public health guidance for residential care facilities and protective measures for vulnerable groups in the context of COVID-19. In response to this work the following feedback was received from the Department of Health:

 "Many thanks to you and the team for preparing these reviews over the course of the pandemic – they have been a very important input to considerations on the pandemic response."

This further demonstrates the contribution of the HIQA COVID-19 Evidence Synthesis Team to the COVID-19 response in 2020 and 2021.

Vignette 3

HRB-CICER supported the development of the Stop Smoking National Clinical Guideline. The work undertaken included a budget impact analysis. The Chair of the guideline development group and Project Manager lauded the support provided by HRB-CICER:

- "There was good communication throughout the process."
- "Sharing of documents from an early stage worked well there were no surprises at the end!"
- "We were completely 'in-the-loop' through the development of the report and the 2-way communication between our group and your group contributed to this."

The feedback highlights the close working relationships with healthcare stakeholders that have been fostered during the course of our work, and the clear appreciation of those stakeholders for the excellent collaborative methodological input provided by HRB-CICER.

Reach

The concept of reach is intended to capture elements of public engagement: specifically the extent to which stakeholders or the general public may have been exposed to output or work by the HIQA HTA Directorate.

Downloads provide a measure of people actively seeking HIQA HTA outputs. Downloads are measured as the total number of downloads for a document in the period 1 January 2021 to 31 December 2021.

As many of the COVID-19 reports published were updated (often repeatedly and sometimes with amended titles), these reports were grouped according to theme and the cumulative downloads across each report iteration published in 2021 is presented. Due to the volume of outputs from the HTA directorate in 2021, only those that featured in the top 250 most downloaded reports across all of HIQA are presented.

It should be noted that HRB-CICER reports are hosted on the website of the National Clinical Effectiveness Committee (NCEC) as opposed to the HIQA website. As reports are shared directly by email with the targeted stakeholders (i.e. NPHET, the HSE, COVID-19 EAG, etc.), such downloads are not tracked by the presented website metrics.

In 2021, an Evidence Synthesis Bulletin was launched to summarise and disseminate widely the work HIQA completed at the request of the National Public Health Emergency Team (NPHET) and related groups tasked with the national COVID-19 response. During periods of high production and frequent output, the bulletin allowed for all reports, advice and analysis to be collated and published accessibly to academics, other stakeholders and the public. The bulletin is published on our social media platforms and website and is sent directly to subscribers via the dedicated inbox. In 2021, we published eight bulletins summarising all our outputs throughout the year.

Report downloads

- Protocol for the identification and review of new and updated public health guidance -COVID-19 (1,814 total)
- Guidelines for the Economic Evaluation of Health Technologies in Ireland (697 total)
- Advice to the National Public Health Emergency Team An international review: Policies relating to healthcare personnel who do not avail of COVID-19 vaccination (462 total)
- Advice to the National Public Health Emergency Team: Reduction of the minimum age for the application of mask wearing requirements and recommendations – Updated advice (462 total)
- Analysis of factors associated with outbreaks of SARS-CoV-2 in nursing homes in Ireland (419 total)

- Rapid review of public health guidance for residential care facilities in the context of COVID-19 (381 total)
- A Guide to Health Technology Assessment at HIQA (359 total)
- Advice to the National Public Health Emergency Team: Rapid antigen testing for screening or surveillance of asymptomatic individuals to limit transmission of SARS-CoV-2 (319 total)
- Advice to the National Public Health Emergency Team: Derogation of healthcare workers, who are deemed close contacts, from restricted movements following COVID19 vaccination (300 total)
- Protocol for evidence synthesis support COVID-19 (282 total)
- Public health measures and strategies to limit the spread of COVID-19: an international review (260 total)
- Current public health guidance for community settings and infection prevention and control measures in healthcare settings for COVID-19: a rapid review (257 total)
- Rapid health technology assessment of alternative diagnostic testing approaches for the detection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (245 total)
- Public health measures and strategies to limit the spread of COVID-19 (233 total)
- Rapid review of public health guidance for residential care facilities in the context of COVID-19 (213 total)

When examining a sample of national print media from between January to December 2021, Dr Mairin Ryan, Deputy CEO and Director of Health Technology Assessment was the most quoted spokesperson for HIQA, with Dr Conor Teljeur, Chief Scientist for HIQA, being the fifth most quoted spokesperson.

Media coverage in 2021 on HTA evidence outputs

- National print 150
- Regional print 34
- Online 664
- Magazine 26
- Broadcast 789

MEDIA COVERAGE IN 2021 ON HTA EVIDENCE OUTPUTS



While complete data were not available on the number of times HTA team members were interviewed on radio or television, HTA team members were featured on 11 stations/channels in 2021.

Radio stations that interviewed HTA team members in 2021

- RTE Drivetime
- RTE's Six One News
- RTE News at One
- Virgin Media's News at 8
- Northern Sound
- Tipp FM
- Kildare Today
- Midlands 103
- Limerick Today
- Kerry Today
- Shannonside

RADIO STATIONS THAT INTERVIEWED HTA TEAM MEMBERS IN 2021



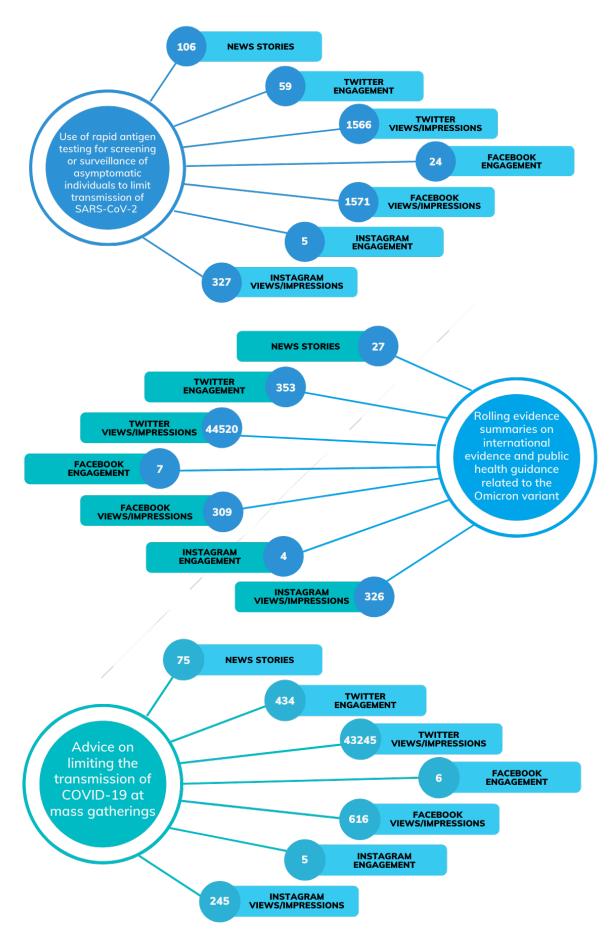
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A further sample of HTA media coverage in 2021 was also recorded based on three HTA Directorate reports.

Sample of HTA media coverage in 2021, using three case studies

- Use of rapid antigen testing for screening or surveillance of asymptomatic individuals to limit transmission of SARS-CoV-2
 - News stories: 106
 - Twitter engagement: 59
 - Twitter views/impressions: 1,566
 - Facebook engagement: 24
 - Facebook views/impressions: 1,571
 - o Instagram engagement: 5
 - o Instagram views/impressions: 327
- Rolling evidence summaries on international evidence and public health guidance related to the Omicron variant
 - o News stories: 27
 - o Twitter engagement: 353
 - o Twitter views/impressions: 44,520
 - o Facebook engagement: 7
 - Facebook views/impressions: 309
 - o Instagram engagement: 4
 - o Instagram views/impressions: 326
- Advice on limiting the transmission of COVID-19 at mass gatherings
 - o News stories: 75
 - o Twitter engagement: 434
 - Twitter views/impressions: 43,245
 - o Facebook engagement: 6
 - Facebook views/impressions: 616
 - o Instagram engagement: 3
 - o Instagram views/impressions: 245

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Citations of peer-reviewed articles by members of the HIQA HTA Directorate demonstrate the extent to which work within the Directorate influences academic research activity internationally.

An 'Altmetric' is a web-based metric which incorporates a wider range of online factors that can be used to measure researcher's attention, influence and impact. An Altmetric takes into account non-traditional forms of online interaction such as public policy documents, research blogs, mainstream media coverage and social network mentions. It is important to appreciate that the Altmetric is intended to supplement rather than replace existing forms of research evaluation (that is, citation-based metrics). There is no clear guidance on what represents a good Altmetric score, but a higher score indicates greater impact. The highest Altmetric score ever recorded is 11,980.

Citations and Altmetrics of HTA publications

Reports

- Evidence summary of the immune response following infection with SARS-CoV-2 or other human coronaviruses (4 citations)
- Protocol for evidence synthesis support—Covid-19 (3 citations)
- The impact of COVID-19 on nursing homes in Ireland (3 citations)
- Evidence summary for Covid-19 viral load over course of infection (2 citations)

Peer-reviewed publications

- Cardwell K, O'Neill SM, Tyner B, Broderick N, O'Brien K, Smith SM, Harrington P, Ryan M, O'Neill M. "<u>A rapid review of measures to support people in isolation or</u> <u>quarantine during the Covid-19 pandemic and the effectiveness of such</u> <u>measures</u>." *Reviews in Medical Virology* (2021): e2244. (1 citation, Altmetric 2)
- O Murchu E, Teljeur C, Hayes C, Harrington P, Moran P, Ryan M. <u>Cost-Effectiveness Analysis of a National Pre-Exposure Prophylaxis (PrEP) Program in Ireland</u>. *Value in Health*. 2021 Apr 15. doi: 10.1016/j.jval.2021.02.005 (0 citations, Altmetric 8)
- O Murchu E, O'Neill S, Byrne P, De Gascun C, O'Neill M, Harrington P, Ryan M. <u>Comparative genomic analysis demonstrates that true reinfection following SARS-</u> <u>CoV-2 infection is possible</u>. *Journal Clinical Virology Plus* (2021) 1(1-2). (0 citations, Altmetric 4)
- O Murchu E, Spillane S, Byrne P, O'Neill, M, Harrington P, Ryan M. <u>Interventions</u> in an ambulatory setting to prevent progression to severe disease in patients with <u>COVID-19: a systematic review</u>. *Annals of Pharmacotherpay*. In Press (3 citations, Altmetric 4)
- O Murchu E, Byrne P, Carty PG, De Gascun C, Keogan M, O'Neill M, Harrington P, Ryan M. <u>Quantifying the risk of SARS-CoV-2 reinfection over time.</u> *Reviews in Medical Virology*, (2021) p.e2260. (13 citations, Altmetric 1,566)
- [PREPRINT] O Murchu E, Marshall L, Hayes C, Harrington P, Moran P, Teljeur C, Ryan M. <u>Oral Pre-exposure prophylaxis (PrEP) to prevent HIV: a systematic review</u>

and meta-analysis of clinical effectiveness, safety, adherence and risk compensation in all populations. https://doi.org/10.1101/2021.09.24.21264095 (0 citations, Altmetric 2)

- Cardwell K, O'Murchu E, Byrne P, Broderick N, O'Neill SM, Walsh K, Smith SM, Harrington P, Ryan M, O'Neill M. <u>Pharmacological interventions to prevent COVID-19 disease: a rapid review</u>. *Rev Med Virol.* 2021 Sep 28:e2299 (1 citation, Altmetric 13)
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HTA publications are uploaded to the international HTA database: <u>https://database.inahta.org/</u>.The international HTA database provides free access to bibliographic information about ongoing and published health technology assessments commissioned or undertaken by HTA organisations internationally.

HTA publications and peer reviewed open access publications authored by HTA team members, are now published on Lenus, the Irish health research repository: <u>https://www.lenus.ie/</u>

HIQA has a collection on the Lenus repository that collates HIQA's openly available research output. The table below presents the total number of downloads and views for HIQA's HTA publications in 2021.

Top downloads and views in Lenus 2021 of HTA publications

- Report: An international review: Policies relating to healthcare personnel who do not avail of COVID-19 vaccination [v2.0] (196)
- COVID-19 Public Health Guidance Database 14 April 2021 (126)
- Duration of protective immunity following COVID-19 vaccination (118)
- Comparative genomic analysis demonstrates that true reinfection following SARS-CoV-2 infection is possible (107)
- Evidence summary for COVID-19 viral load over course of infection (98)
- Rapid review of public health guidance for infection prevention and control measures in residential care facilities in the context of COVID-19 [v5.3] (70)
- Interventions in an ambulatory setting to prevent progression to severe disease in patients with COVID-19 (64)
- Factors influencing, and measures to improve, vaccination uptake: rapid evidence summary protocol (62)

- Public health measures and strategies to limit the spread of COVID-19: an international review [v9.0] (61)
- Pharmacological interventions to prevent Covid-19 disease: A rapid review. (60)
- Public health measures and strategies to limit the spread of COVID-19: an international review [v10.0] (54)
- Duration of immunity (protection from reinfection) following SARSCoV-2 infection [v8.0] (46)
- Evidence summary of the immune response following infection with SARS-CoV-2 or other human coronaviruses [v3.0] (40)
- Health technology assessment of human papillomavirus testing as the primary screening method for prevention of cervical cancer (34)
- Rapid review of public health guidance on protective measures for vulnerable groups in the context of COVID-19 [v54.0] (28)
- Evidence summary for universal face mask use by healthcare workers in the context of COVID-19 (26)
- COPD Budget impact analysis Management of Chronic Obstructive Pulmonary Disease in adults (25)
- Review of restrictive public policy measures to limit the spread of COVID-19 [v10.0] (22)

Vignette 4

The HSE Open Access Research Awards were established in 2014 to encourage and reward open access publishing in the Irish health sector. The awards recognise health and social care professionals and those conducting research in the Irish health system. It is a route to promote research activity that improves the evidence and knowledge base underpinning health services in Ireland. A paper, led by Dr. Kieran Walsh, Senior HTA Analyst on the COVID-19 Evidence Synthesis Team, was awarded overall winner of the HSE Open Access Research Awards 2021. The paper entitled '<u>SARS-CoV-2 detection, viral load and infectivity over the course of an infection</u>' published in the Journal of Infection in June 2020 has been cited over 400 times to date. The project was a collaboration between members of the HTA and HIS Directorates of HIQA and researchers affiliated to the Health Research Board Centre for Primary Care Research, Royal College of Surgeons in Ireland.

The HSE Open Access Research Awards aims to shine a light on research conducted within the Irish health system. By winning the overall HSE Open Access Research Award in 2021, this HTA project received online and social media coverage. Such coverage elevates the work conducted by the HIQA HTA Directorate to a more public platform for stakeholders and the general public and demonstrates the quality of the research conducted by the HTA Directorate.

Engagement

Distinct from reach, engagement captures direct interaction with stakeholders or the general public. The HIQA HTA Directorate interacts with stakeholders through their participation in HIQA projects, in which case the stakeholders have the opportunity to directly influence HIQA outputs.

Advisory groups

- Expert Advisory Group for HTA of birth cohort testing for hepatitis C
- HRB-CICER Executive Committee
- COVID-19 Evidence Synthesis Expert Advisory Group
- Economic burden of antimicrobial resistance Expert Advisory Group
- Processes to inform advice on the expansion of newborn bloodspot screening programmes Expert Advisory Group
- International ethics frameworks for policy-making in the context of screening Expert Advisory Group

Through participation of members of the HIQA HTA Directorate in external projects, committees and groups, we influence the outputs of other organisations and agencies.

External appraisal of evidence to support National Clinical Guidelines and National Clinical Audits

- Sepsis Management for Adults (including maternity), National Clinical Guideline
- Stop Smoking, National Clinical Guideline
- Diagnosis, Staging and Treatment of Gestational Trophoblastic Disease, National Clinical Guideline
- Unexpected Intraoperative Life Threatening Haemorrhage, National Clinical Guideline

Supporting the use of evidence to inform decision making/guideline development/health policy

- ECDC National Immunisation Technical Advisory Groups working group
- National Screening Advisory Committee (NSAC)

National Clinical Effectiveness Committee and National Clinical Guideline Development Groups supported

National Clinical Effectiveness Committee

Update processes for guidelines – systematic review

Guideline Development Groups

- Management of chronic obstructive pulmonary disease in adults
- Healthcare-associated infection
- Intraoperative massive haemorrhage
- Sepsis
- Smoking Cessation

Contribution to external working groups and committees

- HSE National Cancer Control Programme, Technology Review Group
- HSE Rare Diseases Programme, Technology Review Group
- HSE Rapid Antigen Diagnostic Testing working group
- National Public Health Emergency Team
- Department of Health's Health System Performance Assessment Stakeholder Group
- NPHET's Irish Expert Modelling Advisory Group (IEMAG)
- National Clinical Effectiveness Committee
- SPHeRE Steering Group
- Collaborative Doctoral Award (CDA) Steering Group
- Evidence Synthesis Ireland International Steering Group
- EUnetHTA Executive Board
- EUnetHTA Heads of Agencies Group
- Working Group of the Council of Ministers reviewing the proposed European Commission HTA Regulation
- ISPOR HTA Roundtable

Public consultations conducted

Public consultation on a birth cohort testing programme for diagnosis of Hepatitis C

Collaborations

- Partnership with the Department of Public Health in the Mid-West to successfully apply to co-host a Clinical Leadership in Public Health Medicine fellow from July 2021 to July 2022.
- Collaboration with the HSE National Health Library and Knowledge Service. HSE librarians provided technical support to HIQA's evidence synthesis team to support the response to COVID-19. This support was formalised in 2021 with the HSE librarians continuing to provide technical support to HIQA's librarian, as required.

- Collaborative panel discussion was delivered by HIQA, Health Technology Wales, the Scottish Health Technology Group and other international health technology agencies (including the Swedish Agency for Health Technology and the Canadian Agency for Drugs and Technologies in Health), at the Health Technology Assessment international (HTAi) conference in 2021.
- HIQA entered in to a collaboration with AGENAS, the Italian national HTA agency in 2021. One AGENAS senior health economists commenced a fellowship in the HIQA HTA team in October 2021. This fellowship provides a unique opportunity for skills transfer and information exchange between the two agencies.
- HIQA is a member of both HTAi and the International Network of Agencies for Health Technology Assessment (INAHTA). These international collaborations allow the HTA Directorate to share research and collaborate on and co-produce evidence reviews on health technologies.
- HIQA has been nominated by the Department of Health to represent Ireland in the European Network for Health Technology Assessment (EUnetHTA) since 2008. HIQA is also a founding member of the Heads of Agencies Group, a network of Health Technology Assessment Agencies across the European Union formed in 2021.

Vignette 5

In 2021, HIQA published an HTA of offering testing for the hepatitis C virus (HCV) to people in Ireland born between 1965 and 1985. The draft HTA was available for a six-week public consultation period. The HTA demonstrated engagement from a broad range of healthcare stakeholders who contributed to the project to directly influence national decision making.

The HTA was supported by an Expert Advisory Group with representation from the Department of Health, the National Hepatitis C Treatment Programme, the National Virus Reference Laboratory, the National Programme for Pathology, the Health Protection Surveillance Centre, clinicians with specialist expertise in infectious diseases, the National Screening Service, the National Centre for Pharmacoeconomics, the Irish College of General Practitioners, relevant patient advocacy groups and methodological experts.

Between 16 March 2021 and 27 April 2021, 28 submissions were received, 21 of which were from individual members of the general public and seven which were submitted on behalf of stakeholder organisations or institutions. The feedback was generally supportive of the work conducted and several changes were made to the report in response to suggested updates.

Change

Change is intended to measure the informing of decision-making and health system benefits.

Medium-term

evic	ence summaries provided to the NPHET Expert Advisory Group:
	 Interventions in an ambulatory setting to prevent progression to severe disease in patients with COVID-19
	 Review of measures to support those in self-isolation or restriction of movements
	 Duration of protective immunity (protection from reinfection) following SARS- CoV-2 infection
	 Policies relating to healthcare personnel who do not avail of COVID-19 vaccination
	\circ Mandatory home quarantine and post-travel testing \swarrow
	• Public health measures to limit SARS-CoV-2 transmission at mass gatherings
	 Rapid antigen testing of asymptomatic individuals
faci	itated discussions
	 Derogation of vaccinated healthcare workers
	 Reducing the minimum age for mask wearing requirements and recommendations in COVID-19
	 Respirator mask use by persons who are at higher risk from COVID-19
epic	lemiological analysis and modelling
•	 Rapid Antigen Diagnostic Tests in meat processing plants

- Skills and knowledge gained through conference, course or training attendance
- Leading with Impact (1 staff member)
- Introduction to Systematic Reviews (1 staff member)
- Cochrane ROB 2.0 (3 staff members)
- Cochrane ROB 2.0: Train the Trainer (2 staff members)
- Embase training (9 staff members)
- INAHTA (International Network of Agencies for Health Technology Assessment) Congress Adapting to Changing Times (2 staff members)
- Guidelines International Network (2 staff members)
- Society for Medical Decision Making (1 staff member)
- European Public Health (5 staff members)
- ISPOR (Professional Society for Health Economics and Outcomes Research) (1 staff member)
- SPHeRE (2 staff members)

Vignette 6

The HTA NSAC function conducted a review entitled 'Processes in use to inform the expansion of newborn bloodspot screening programmes'. This review was conducted to inform the development of processes by NSAC for the assessment of conditions for potential inclusion in Ireland's National Newborn Bloodspot Screening Programme (NNBSP). This comprehensive review examined several countries recognised as having described policy-making processes in place for their newborn bloodspot screening programmes, and considered all relevant aspects of their policy-making processes. Following the review, the HTA NSAC function also facilitated a discussion at the NSAC meeting of the contents of the report, in order to facilitate consensus-building within NSAC on principles and approaches for assessment of conditions for bloodspot screening.

Following the meeting, the Chair of the NSAC, Prof Niall O'Higgins, emailed the team to express his appreciation for the work:

- "I want to congratulate you and thank you for the splendid presentation you gave us at the National Screening Advisory Committee. It was just the type of information we needed and was suitably pitched to provide a sound basis for the discussion that followed. In addition the background papers were ideal and emphasised the detailed work that HIQA had carried out in preparation. You have helped us greatly."
- "I know that all of us on the Committee admire and appreciate the range and level of detail which you at HIQA devoted to preparing the documentation, and in such a short period of time. Susan Spillane's presentation was a model of clarity and provided a suitable platform for the discussion. Thank you too for conducting this."
- "We are truly fortunate to have such experience and professionalism available to us as we strive to negotiate a pathway between the possible and the valuable."

The NSAC's Chairperson Prof Niall O'Higgins also wrote in his official note (as quoted in the Irish Medical Times) of the May 2021 meeting that:

 the draft report "provided a comprehensive review" of the experience and approaches of other countries in expanding NBS programmes, including the ethical, legal, and societal issues that arise when planning "an enduring population-based programme of this nature". "This evidence-base will greatly help to inform our future decision-making on this important topic.

The feedback highlights the close working relationships with healthcare stakeholders that have been fostered during the course of our work, and the clear appreciation of those stakeholders for the expert methodological input provided by the HTA NSAC function.

Vignette 7

In September 2020, HIQA commenced providing evidence-based advice directly to NPHET on behalf of the Minister for Health. In December 2021, the HIQA COVID-19 Evidence Synthesis Team were requested to conduct a rolling review Omicron evidence and

guidance. In response to the work conducted by the COVID team on the Omicron variant in December 2021 there was a universal appreciation of the scale and quality of what was achieved by the team in a short timeframe by members of NPHET. Feedback included:

- excellent work that put NPHET in a very strong position to have an evidence informed discussion
- information included in reports was used to inform model assumptions
- the work was incredibly helpful, of amazing quality and hard to know how work was completed considering the time pressures
- Other comments from NPHET members were "excellent", "wonderful", "big thanks to the team", "fantastic", "incredible work"
- "reports are really good and really useful"

The feedback provided indicates that there is a high degree of satisfaction with the work of the HIQA COVID-19 Evidence Synthesis Team, which is frequently stated by members of NPHET, and that this work informs decision-making for the public health system.

Vignette 8

In September 2020, HIQA commenced providing evidence-based advice directly to NPHET on behalf of the Minister for Health. The HIQA COVID-19 Evidence Synthesis Team has conducted extensive evidence synthesis to inform national strategic decision-making. These evidence syntheses are conducted at the request of NPHET and of related groups tasked with the national COVID-19 response. The influence of the HIQA COVID-19 Evidence Synthesis Team outputs was demonstrated in particular through the acknowledgement of this work by both Dr. Ronan Glynn (Deputy Chief Medical Officer, Department of Health) and Professor Phillip Nolan (Director-General of Science Foundation Ireland) at the Structured Population and Health-services Research Education SPHeRE conference on 29 March 2022. The volume and quality of work conducted by the HIQA COVID-19 team were cited in the following presentations:

- Dr. Ronan Glynn 'COVID-19 Lessons from Tackling a Classic Wicked Problem'
- Professor Phillip Nolan 'Learning Fast: Supporting Policy Formation Emergency Under Conditions with Extreme Uncertainty'

The inclusion of outputs from the HIQA COVID-19 Evidence Synthesis Team in both presentations further highlights that this work informs decision-making for the public health system.

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