International Horizon Scanning and Learning to Inform Wales' COVID-19 Public Health Response and Recovery

Report 25, 04/03/2021

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Collaborating Centre on
Investment for Health and Well-being

Overview

The International Horizon Scanning and Learning work stream was initiated following and informing the evolving coronavirus (COVID-19) public health response and recovery plans in Wales. It focuses on COVID-19 international evidence, experience, measures, transition and recovery approaches, to understand and explore solutions for addressing the on-going and emerging health, wellbeing, social and economic impacts (potential harms and benefits).

The learning and intelligence is summarised in weekly reports to inform decision-making. These may vary in focus and scope, depending on the evolving COVID-19 situation and public health / policy needs.

This work is aligned with and feeding into the Welsh Government Office for Science and into Public Health Wales Gold Command. It is part of a wider Public Health Wales' systematic approach to intelligence gathering to inform comprehensive, coherent, inclusive and evidence-informed policy action, which supports the Wellbeing of Future Generations (Wales) Act and the Prosperity for All national strategy towards a healthier, more equal, resilient, prosperous and globally responsible Wales.

Disclaimer: The reports provide high-level summary of emerging evidence from country experience and epidemiology; research papers (peer-reviewed/not); and key organisations' guidance / reports, including sources of information to allow further exploration. The reports don't provide detailed or in-depth data/evidence analysis. Due to the novelty of COVID-19 virus/disease, and dynamic change in situation, studies and evidence can be conflicting, inconclusive or depending on country/other context.

In focus this week

- **COVID-19 transmission in hospital settings**
- **COVID-19 impact on physical activity**
- **COVID-19 and food poverty**
- **COVID-19 impact on rural areas**

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At a glance: summary of international learning on COVID-19

COVID-19 transmission in hospital settings

- **Hospital acquired (nosocomial) transmission of COVID-19 remains a major issue** in dealing with the pandemic
- Nosocomial infections create **serious issues for the health service**, including preventing people from seeking essential care; and reducing availability and sustainability of staff
- **Key factors influencing the risk** of nosocomial infections include effective IPC measures and PPE use, hospital ventilation systems, frontline staff communication, and effective processes and interventions to identify, monitor and mitigate against transmission
- **Different mitigation measures** have been implemented across countries, including innovative solutions to increase surge capacity in intensive care units
- Proactive mitigation can involve **ward mapping and modelling transmission scenarios**, providing insights into the design and effectiveness of interventions

More information is summarised on pp.4-8

COVID-19 impact on physical activity

- **Physical activity (PA) has decreased** during COVID-19 lockdowns; and **sedentary behaviour has increased** with potential **long-term negative consequences on health and well-being,** including impact on non-communicable diseases and mental ill health
- **All types of PA** are beneficial and should be **actively promoted and supported** during and post COVID-19 lockdowns
- COVID-19 restrictions have resulted in **temporary positive impacts on air quality**, with **substantial reduction in pollutant emissions** across Europe

More information is summarised on pp.9-10

COVID-19 and food poverty

- COVID-19 has caused a **global food security crisis** and **dramatically increased the number of people facing acute food insecurity** in 2020
- The **most vulnerable** include those already exposed to food/dietary deprivation before the pandemic; migrants and displaced people and communities
- Disruption of food systems could result in **long-term consequences for people's livelihoods, nutrition and health**, especially for the most vulnerable
- **Mitigation measures** include reducing child poverty; better data gathering and analysis; counteracting discrimination towards people on the move, and promoting their inclusion

More information is summarised on pp.11-12

COVID-19 impact on rural areas

- **Rural areas have been particularly affected by COVID-19** due to specific **demographic, geographic, socio-economic and healthcare vulnerabilities**
- COVID-19 has caused **harms**, as well as opened **opportunities for rural economies**
- Targeted rural **mitigation measures** include **investment in digital infrastructures and health care,** and supporting **social innovation and solidarity projects**

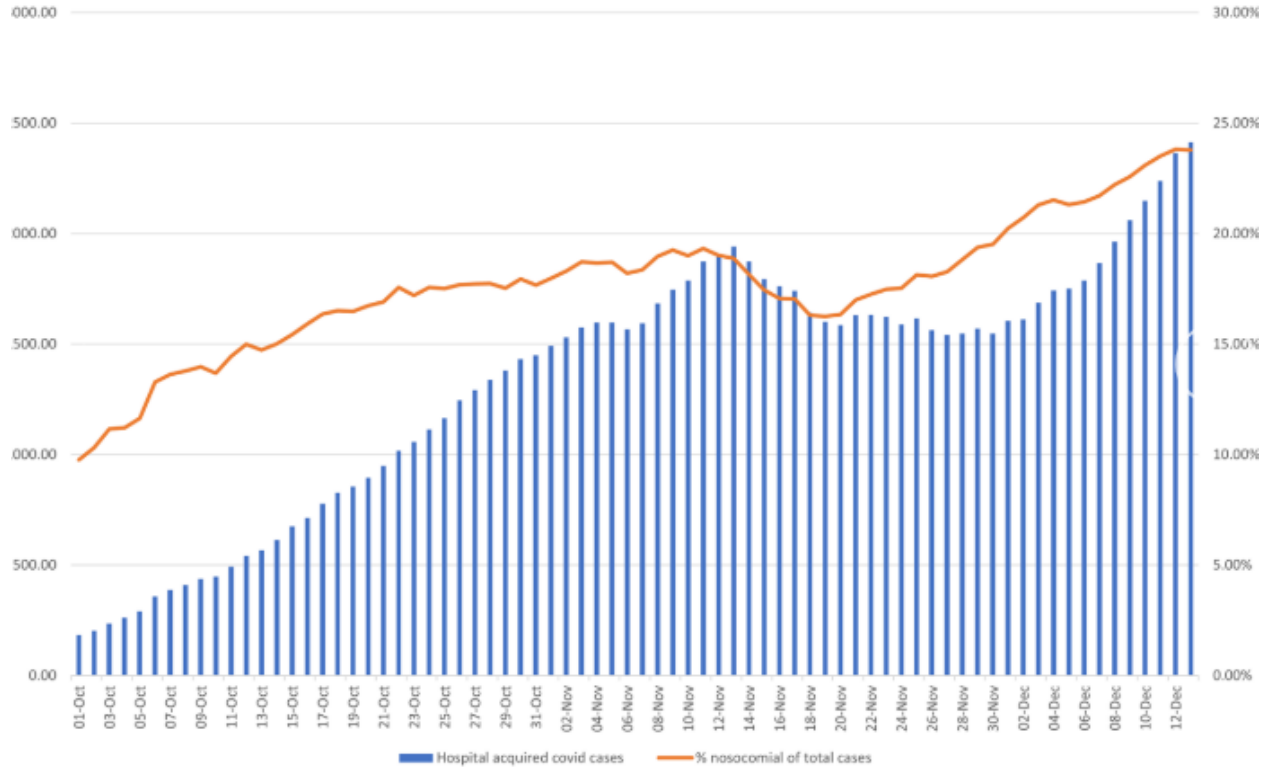
More information is summarised on pp.13-14

COVID-19 transmission in hospital settings

Key issues and risk factors[1][2][3]

- **Hospital acquired, or nosocomial, transmission of COVID-19 remains a major issue** in limiting the spread of the virus and dealing with the pandemic
- Early evidence from China highlights the potential **severity of the issue**, with contact tracing finding more than 40% of infections were acquired in hospitals
- Nosocomial infections create **serious issues for the health service**, including:
  - ✓ Preventing people from seeking essential care due to fear of being infected
  - ✓ Maintaining patient confidence in the services
  - ✓ Reducing availability and sustainability of clinical and non-clinical staff
  - ✓ Balancing the risks associated with maintaining physical and mental well-being of staff
- **Factors influencing the risk** of nosocomial infections include:
  - ✓ Quality of communication and leadership among frontline staff
  - ✓ Implementation of infection prevention and control (IPC) guidance and measures
  - ✓ Availability of suitable personal protective equipment (PPE), clothing and changing facilities
  - ✓ Design, use and risk management of hospital ventilation systems
  - ✓ Ability of teams to identify, monitor and mitigate against existing or arising threats of increased transmission
  - ✓ Managing entry/exit points and controlling the flow of people around the hospital
- Data from England[4] highlights that severity of the problem *(Figure 1)*

Figure 1: Total number of COVID-19 hospital acquired cases and percentage of total cases in England, 1st October - 12th December 2020[4]



[1] https://pubmed.ncbi.nlm.nih.gov/32566566/
[2] https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2770287
[3] https://www.hsib.org.uk/documents/257/hsib-report-covid-19-transmission-hospitals.pdf
[4] https://www.hsj.co.uk/patient-safety/covid-infections-caught-in-hospital-rise-by-a-third-in-one-week/7029211.article

Mitigation measures[5][6][7]

- **Early identification, monitoring and proactive management** of COVID-19 transmission
- Proactive management of **IPC and PPE risks**
- **Controlling entry/exit points and the flow of people** around the hospital
- Considering the design and use of hospital ventilation systems, as well as consistent and timely engagement with engineering and estates teams to manage emerging risks

Ward Mapping[7]

- A mapping exercise can provide an insight into the design and layout of ward environments and workflow, which has to be considered when managing hospital transmission
- Key 'hotspots' include areas of higher density of staff movement and ward based activities, creating a major challenge for social distancing and limiting person-to-person contact (*Figure 2)*
- Design measures to enable social distancing, recognising the number of people and activities required within a similar timeframe, can support implementation of IPC guidance and prevention of COVID-19 spread

Modelling scenarios[8]

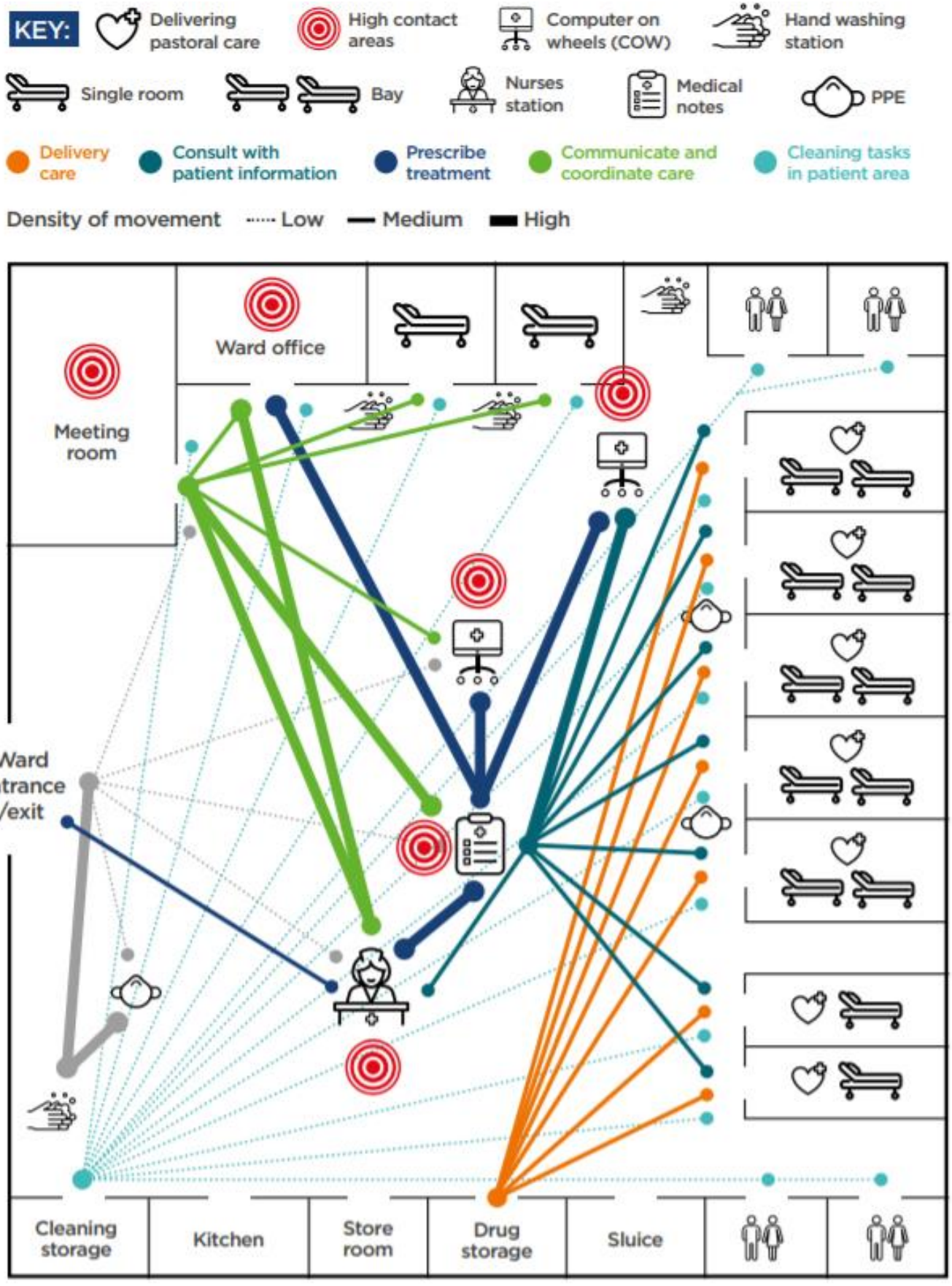
- A mathematical model was developed for COVID-19 transmission in a 2500 bed hospital in South Korea
- The modelling shows that diagnosis of COVID-19 within eight hours and isolation are the best interventions in hospitals
- Other effective measures include:
  - ✓ Front door screening of inpatients (more effective in a best-case scenario)
  - ✓ Designated quarantine unit (more effective in a best-case scenario)
  - ✓ Use of protection devices (PPE) (more effective in a worst-case scenario)
  - ✓ Testing (more effective in a worst-case scenario)

International examples[9]

- Decisive leadership, transparency and accountability of decision-makers contributes to better COVID-19 containment
- Governments have found different and innovative solutions to increase surge capacity of healthcare services, particularly in intensive care units (ICU)
- Four broad interventions have been implemented to maximise ICU capacity during the pandemic *(Figure 3)*:
  - ✓ Systematic transformation of other clinical wards into ICUs (at least 24 of 31 countries)
  - ✓ Creation of field hospitals (at least 14 of 31 countries)
  - ✓ Transfer of patients to localities with spare capacity (at least 8 of 31 countries)
  - ✓ Partnership with private hospitals (at least 11 of 31 countries)
- Country examples of IPC measures to limit COVID-19 healthcare transmission is provided in *Table 1*[10]

[5] https://pubmed.ncbi.nlm.nih.gov/32566566/
[6] https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2770287
[7] https://www.hsib.org.uk/documents/257/hsib-report-covid-19-transmission-hospitals.pdf
[8] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7588052/pdf/pone.0241169.pdf
[9] https://www.oecd-ilibrary.org/docserver/85e4b6a1-en.pdf?expires=1613562398&id=id&accname=guest&checksum=179C296CDF247B3EB694442FA36D425E
[10] https://aricjournal.biomedcentral.com/articles/10.1186/s13756-020-00875-7

Figure 2. COVID-19 transmission hotspots identified in hospitals by ward mapping[11]



[11] https://www.hsib.org.uk/documents/257/hsib-report-covid-19-transmission-hospitals.pdf

***Figure 3. ICU capacity: overview of policies used by countries to boost surge capacity response to COVID-19 during the first wave of the pandemic*[12]**

Country	Transformation of wards into ICUs	Creation of field hospitals	Transfer of patients to localities with spare capacity	Partnerships with private hospitals
Austria	✓			
Belgium	✓			✓
Bulgaria		✓		✓
Croatia	✓	✓		
Cyprus		✓		
Czech Republic	✓			
Denmark	✓			✓
Estonia	✓	✓	✓	
Finland	✓			
France	✓	✓	✓	✓
Germany	✓	✓		
Greece	✓	✓		✓
Hungary	✓	✓		
Iceland	✓			
Ireland	✓		✓	✓
Italy	✓	✓	✓	
Latvia	✓			✓
Lithuania			✓	
Luxembourg	✓	✓		
Malta	✓			
Netherlands			✓	
Norway	✓			
Poland	✓			
Portugal	✓	✓		✓
Romania	✓	✓		
Slovak Republic				
Slovenia		✓		
Spain		✓	✓	✓
Sweden	✓	✓	✓	✓
Switzerland	✓		✓	✓
United Kingdom	✓	✓		✓

Source: OECD health system policy tracker, European Observatory Health System Response Monitor.

[12] https://www.oecd-ilibrary.org/docserver/85e4b6a1-en.pdf?expires=1613562398&id=id&accname=guest&checksum=179C296CDF247B3EB694442FA36D425E

Table 1. Country examples of IPC measures across different settings[13]

Country	Overview of infection prevention and control measures
UK	Self-isolation of HCWs if symptomatic or in close contact, cohort wards and visitor restrictions
France	Strict infection control measures, close monitoring of suspected cases, reduction of bed occupancy, screening patients on admission, visitor restrictions, universal masking, cohorting.
Germany	Symptom monitoring of close contacts, universal masking, physical distancing in non-clinical areas, ban on elective surgery (including outpatient clinics), visitor restrictions, screening prior to transfer in rehabilitation, quarantine of exposed healthcare workers (HCWs) or work with surgical mask if asymptomatic, symptom monitoring, expanded testing criteria
South Africa	Surveillance or self-monitoring of exposed contacts, cancellation of elective surgical procedures, expanded testing criteria (all staff), enhanced environmental cleaning
United States	Visitor restrictions, cancellation of communal activities, facility-wide transmission precautions (PPE use), PPE training, hand hygiene assessments, audits of PPE use, reviews of environmental cleaning and disinfection practices, mandatory screening of HCWs, fever screening of HCWs, expanded testing criteria (serial testing)
Singapore	Self-isolation of HCWs if symptomatic or in close contact with COVID-19, symptom monitoring, syndromic surveillance of HCWs
Hong Kong	Reduction of bed occupancy, active surveillance of hospitalised patients, linking contact tracing to the hospital, visitor restriction, cohorting, isolating in airborne infection isolation rooms (AIIRs), segregation of staff working in high-risk areas, quarantine of close contacts, symptom screening and monitoring, universal masking, enhanced environmental cleaning

China and Thailand[14]

- Effective government action at the early stage of the pandemic in China and Thailand successfully contained cases through:
  - ✓ Synergies between public health and social interventions
  - ✓ High levels of citizen adherence to personal protection
- In China:
  - ✓ The Chinese government mobilised 346 medical teams with a total of 42600 medical staff and 900 public health professionals to support Wuhan city and Hubei province
  - ✓ Two new hospitals were rapidly constructed to provide an extra 2600 beds while 16 mobile cabin hospitals with 14000 beds were designated for mandatory quarantine of patients with mild disease
  - ✓ Since China has universal health coverage, the two social health insurance schemes paid treatment costs, while other costs were fully subsidised by the government
- In Thailand, pressure on health facilities in Bangkok at the peak of the epidemic triggered the development of a rationing protocol (in consultation with stakeholders), which was eventually not applied as demand for critical resources remained small

[13] https://aricjournal.biomedcentral.com/articles/10.1186/s13756-020-00875-7
[14] https://www.bmj.com/content/372/bmj.n83

COVID-19 impact on physical activity

Impact of COVID-19 lockdowns on physical activity[15][16][17][18][19]

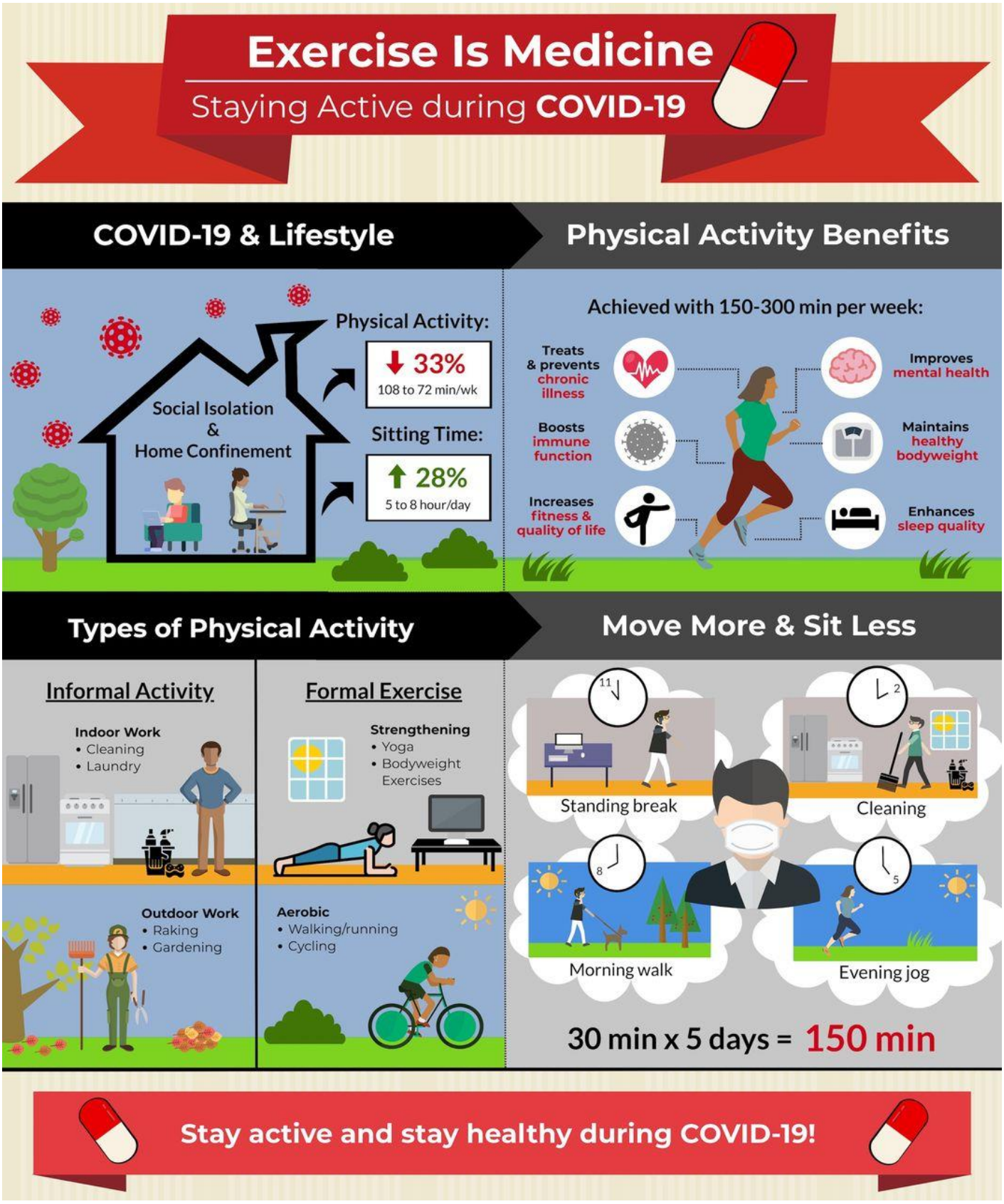
- **Physical activity (PA), including sports, has decreased** during COVID-19 lockdowns, causing a major concern among the public health community
- Evidence suggests that **PA levels have decreased by around 30%** and **sitting time has increased by around 30%**
- Evidence from 35 institutions across Europe, North Africa, West Asia and America reported that lockdown measures have had a **negative impact on all PA intensity levels with daily sitting time increased from 5 to 8 hours per day**
- This is a **major concern**, as **physical inactivity and sedentary behaviour are risk factors** for high blood pressure, heart disease, obesity, cancer, diabetes, bone and joint disease, depression and premature death
- Lower PA levels could result in potentially **long-term negative consequences** on population health and well-being

Recommendations to address reduced physical activity[19][20][21]

- **Immediate action is required** to facilitate PA during the COVID-19 pandemic because it has benefits to promote good health, prevent disease and bolster immune function
- Public health strategies should include the promotion of PA and **effective guidance on how to decrease sedentary behaviour during lockdown**
- Promoting and supporting active lifestyle is especially **important for people with medical conditions that are improved by PA**, such as type 1 and type 2 diabetes
- **Post-lockdown interventions** should consider that individuals may experience **'deconditioning' related to reduced PA during lockdown**, especially in athletic populations and people with medical conditions
- If permitted and compliant with social distancing rules, **people should be encouraged by authorities to be active outdoors, if possible in green spaces**
- Evidence shows that **all types of PA are beneficial**, including short time active sessions, which can be accumulated throughout the week
- A number of international organisations, such as the World Health Organization (WHO) have provided **guidance and resources to increase PA during COVID-19**
- An evidence-based infographic for public health officials, clinicians, educators and policymakers provides an example how to **communicate the importance of engaging in physical activity during the COVID-19 pandemic** *(Figure 4)*

[15] https://bmjopensem.bmj.com/content/7/1/e000960
[16] https://www.un.org/en/coronavirus/staying-fit-time-covid-19-%E2%80%93-tips-un
[17] https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/impact-of-covid19-lockdown-on-body-weight-eating-habits-and-physical-activity-of-jordanian-children-and-adolescents/6AF3F7BC1DCE0133ABDFCB177F6BC63F
[18] https://pubmed.ncbi.nlm.nih.gov/32481594/
[19] https://bjsm.bmj.com/content/early/2020/11/11/bjsports-2020-103282
[20] https://occup-med.biomedcentral.com/articles/10.1186/s12995-020-00278-9
[21] https://bmjopensem.bmj.com/content/bmjosem/7/1/e000960.full.pdf

Figure 4. Staying active during COVID-19 infographic[22]



[22] https://bjsm.bmj.com/content/early/2020/11/11/bjsports-2020-103282

COVID-19 and food poverty

Overview[23][24][25][26]

- COVID-19 has **dramatically increased the number of people facing acute food insecurity** in 2020
- **Those already exposed to food and dietary deprivation** before the pandemic onset are the **most vulnerable** to the COVID-19 related food and nutrition crisis
- Already 149 million people across 79 countries, including refugees, were acutely food insecure in 2019
- Vulnerable households, including among displaced communities, have been forced to **reduce meals, increase debts or sell assets**
- COVID-19 containment measures have limited human mobility and opportunities to work and earn an income, **straining the ability of migrant and displaced people** to provide food and other basic needs
- Without large-scale coordinated action, the multiple effects of COVID-19 could **disrupt food systems**, resulting in **long-term consequences** for people's nutrition and health

Mitigation measures[23][27][28][29][30]

- **Government interventions to reduce child poverty** are among the most cost-effective solutions, showing huge cost savings across all sectors. In the UK, modelling has shown that adding £10 to child benefit per week per child would reduce child poverty by 5%
- **Improve data collection and analysis** to better understand the dynamics between the pandemic, mobility, remittances and food security
- **Recognise the positive contributions of migrants and promote their inclusion** in social protection systems, and their access to legal services
- **Counteract xenophobia, stigmatization and discrimination** towards people on the move, i.e. migrants, refugees and asylum seekers

Country examples

- The Poverty and Inequality Commission in Scotland:
  - ✓ Called for improving communication on food security issues, to help alleviate uncertainty and anxiety in communities during the COVID-19 crisis
  - ✓ Suggested to bring funders together to make best use of the available resources and avoid duplication

- **Examples of food poverty impact and mitigation** across selected countries are presented in *Table 2.*

[23] https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf
[24] https://enuf.org.uk/research-blogs/covid-19-crisis-worsening-food-insecurity-uk
[25] https://www.unhcr.org/uk/news/stories/2021/2/6017c7744/data-reveals-impact-covid-19-livelihoods-futures.html
[26] https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19
[27] https://www.thelancet.com/pdfs/journals/lanres/PIIS2213-2600(20)30280-0.pdf
[28] https://news.un.org/en/story/2020/11/1077272
[29] https://povertyinequality.scot/wp-content/uploads/2020/04/Poverty-and-Inequality-Commission-Food-insecurity-evidence-briefing-.pdf
[30] https://povertyinequality.scot/publication/covid-19-food-insecurity-briefing/

Table 2. Country examples of food poverty impact and mitigation

Country	Impact	Mitigation
Scotland[313233]	– A survey for Citizens Advice Scotland from April 2020 found that a third of people in Scotland are concerned about paying for food and essentials – Survey from the Food Foundation has estimated that over 600,000 (14%) adults in Scotland are facing food insecurity	– At the beginning of the pandemic, the Scottish Government established a £70 million Food Fund to support those who would otherwise be unable to access food through the usual routes
Netherlands[3435]	– A study by the Poverty Fund Foundation, published in October 2020, shows that 46.3% of the local aid organisations, including 61% of the food banks, experience an increase in requests for help from individuals	– The Government provided €4 million additional support dedicated to help food banks, following indications that many were not sufficiently equipped to address the higher demand and/or had to move their location to ensure safe distribution
Spain[3637]	– In October 2020 Oxfam warned that the number of people who live under the poverty threshold, on less than €9,000 per year, could rise by 1.1 million (from 9.8 million) unless more is invested in health and social protection, and the Government basic income scheme is expanded	– The Government launched a national 'Basic Income scheme' ('Ingreso Minimo Vital') for extremely poor households and vulnerable groups in summer 2020 – The Government intends to prolong the scheme beyond the current pandemic
United States[3839]	– Over the past five years, US Department of Agriculture (USDA) estimates of food insecurity have been around 11% to 12% – As of March and April 2020, national estimates of food insecurity more than tripled to 38%	– Since March 2020, Congress and the USDA have taken temporary steps to strengthen the Supplemental Nutrition Assistance Program (SNAP), which has expanded its caseload to 6.2 million more participants in the past few months – The Coronavirus Aid, Relief, and Economic Security Act provided a one-time stimulus payment for up to $1200 per adult and $500 per child, and an extra $600 per week to supplement state unemployment benefits
Australia[40]	– COVID-19 is having an impact on the ability of rural and remote communities in Australia to access sufficient, affordable nutritious food	– Job seeker allowances have been increased and other social security benefits have been boosted

[31] https://www.gov.scot/publications/coronavirus-covid-19-food-fund-guidance-to-local-authorities/pages/the-food-fund/
[32] https://povertyinequality.scot/wp-content/uploads/2020/04/Poverty-and-Inequality-Commission-Food-insecurity-evidence-briefing-.pdf
[33] https://foodfoundation.org.uk/new-food-foundation-survey-three-million-britons-are-going-hungry-just-three-weeks-into-lockdown/
[34] https://unric.org/nl/armoede-en-honger-nemen-toe-in-europa/
[35] https://www.rijksoverheid.nl/actueel/nieuws/2020/03/24/noodsteun-om-voedselbanken-draaiende-te-houden
[36] https://blogs.unicef.org/evidence-for-action/from-crisis-comes-opportunity-spains-basic-income-response-to-covid-19/
[37] https://www.oxfamintermon.org/es/nota-de-prensa/pobreza-en-espana-podria-aumentar-mas-de-1-millon-por-pandemia
[38] https://www.thelancet.com/pdfs/journals/lanres/PIIS2213-2600(20)30280-0.pdf
[39] https://ajph.aphapublications.org/doi/10.2105/AJPH.2020.305953
[40] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361262/

COVID-19 impact on rural areas

Overview[4142]

Rural areas are particularly vulnerable to COVID-19 due to:

- Demographic distribution with a large share of the population at higher risk for severe illness, notably the elderly
- High share of workers in essential jobs, such as agriculture and food processing, coupled with a limited capability to undertake these jobs from home
- Much less diversified economy
- Larger distance to access hospitals and testing centres
- Large digital divide, with lower accessibility to internet and fewer people with adequate devices and the required skills to use them
- Health care facilities within rural communities are often less well-resourced and are struggling to access testing, PPE, and intensive care unit beds

COVID-19 impact on the economy in rural areas[414344]

- The **most heavily affected** are:
  - ✓ Farms dependent on seasonal and migrant labour or sales, notably fruit and vegetable, horticulture and garden nurseries
  - ✓ Those diversified into out of the home goods and services, selling direct to the public
  - ✓ Those reliant upon non-farm income sources affected by COVID-19
- COVID-19 pandemic has provided some **opportunities** for rural areas, such as:
  - ✓ Stimulus to enhance quality and use of digital tools and broadband in rural regions and ensure accessibility to online/virtual services, such as e-health and e-education
  - ✓ Increasing linkages between rural and urban areas, businesses and opportunities
  - ✓ Transform strategic industries, such as for raw materials
  - ✓ Momentum to accelerate transition towards a low-carbon economy

Mitigation measures[41]

- **Speed up investment in digital infrastructure** and support eco-systems to increase the **uptake of digital tools** in rural areas
- Encourage the uptake of remote services by **adapting national rules** to the specificities of rural communities
- **Training teachers and health care** professionals to adopt remote forms of service delivery
- Provide **financial and technical assistance to support community-based and social innovation projects**, aiming to protect the most vulnerable in rural areas, including older people and migrants
- **Support the resilience of rural communities** by **enhancing social solidarity networks** that meet the basic living standards of the vulnerable citizens in the rural areas

Examples of country initiatives to mitigate the impact of COVID-19 in rural areas are presented in *Table 3.*

[41] http://www.oecd.org/coronavirus/policy-responses/policy-implications-of-coronavirus-crisis-for-rural-development-6b9d189a/
[42] https://www.tandfonline.com/doi/pdf/10.1080/08959420.2020.1770036?needAccess=true
[43] https://www.mdpi.com/2071-1050/12/10/3973/pdf
[44] https://www.pnas.org/content/118/1/2019378118

Table 3. Example initiatives across countries to mitigate the impact of COVID-19 in rural areas[45]

Country	Responses
Italy	– A special compensation of €600 to seasonal workers who lost their job as a result of the COVID-19 crisis in rural areas (in March 2020) – Some cooperatives offering free grocery deliveries to citizens over 65 years
France	– Policies to increase public awareness and resilience to address the COVID-19 crisis in remote/rural areas, including hospitals with greater capacity providing services to remote/rural regions – The 'Millevaches Network' brings together practitioners, pharmacists, physiotherapists, etc.
Poland	– An Anti-Crisis Shield provides loans for Small and Medium Enterprises (SMEs), recognising their importance of for rural areas. Total estimated value of loans available could amount to approximately PLN 9.6 billion, of which up to PLN 8.7 billion may be forgiven – An investment plan of €6.6 billion (independent of EU support) to reinforce public expenditure, including a specific fund for the deployment of broadband networks
Czech Republic	– The government released CZK 3.3billion for the 2020 Rural Development Programme to help entrepreneurs in agriculture, food and forestry while fighting the COVID-19 crisis
Canada	– The government provided CAD 287 million through the Community Futures Network - a non-profit network across Canada that provides small business services to people living in rural communities
India	– Ensuring access to credit for farmers and providing new employment opportunities for tribal communities – The public agricultural and rural credit agency (NABARD) can also provide additional refinancing support for rural bank crop lending, targeting small and marginal farmers
South Korea	– On-demand services provided in locations where physical facilities are unavailable – Improved medical services to all people regardless of location – The government allocated the equivalent of $88.5 million to support rural hospitals in 2020

[45] http://www.oecd.org/coronavirus/policy-responses/policy-implications-of-coronavirus-crisis-for-rural-development-6b9d189a/

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