Joint Task Force on Environment Statistics and Indicators

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Data Needs, Statistics, and Indicators on Environment and Health

in response to COVID-19 Pandemic

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Overview of Presentation

- Global population statistics

- Data needs in a pandemic

- Role for National Statistical Offices

- Dissemination

- Environment-relevant behaviour changes

- Conclusions

World Vital Statistics 1950-2020

Improved health care and living conditions have resulted in a substantial increase in World population. When a longer life expectancy is taken into account, the demands on the World's resources have greatly increased resulting in much more intensive use of nature for food production and material extraction and disposal. This has resulted in much more disturbance of nature and its ecosystems which we greatly depend on for our economic and social wellbeing.

World population	Child mortality (deaths before age 5 per 1,000 live births)	Life expectancy at birth
1950 = 2.5 billion persons	1950-1955 = 213	1950-1955 = 47.0 years
2019 = 7.7 billion persons	2015-2020 = 40	2015-2020 = 72.3 years

Data Needs in a Pandemic

- Initial immediate needs are for NSO engagement with health authorities to develop a networked approach that utilises the core competencies of each organisation

- The quality and durability of the COVID-19 tests data collection and capture systems need to be viewed as statistical as well as administrative data

- The COVID-19 data need to be managed using classifications and definitions. While this may seem another burden on health personnel collecting the data during a crisis, it has the potential to reduce the workload by using unique identifiers and data matching protocols to avoid collecting data available elsewhere

- A GDPR compliant system needs to be set-up for data transfer to NSOs and within the NSO so that health, data protection authorities, and the public are assured that the confidential data are being properly protected

- Epidemiologists and specialised health researchers may request access to anonymised microdata and this should be possible under national statistical legislation

- Over time a broader set of data need to be collected and analysed to understand the full impact of the pandemic on the economy and society

- International dashboards played a lead role in dissemination combining COVID-19 data with population, age disaggregated and other data from international statistical agencies

https://www.worldometers.info/coronavirus/

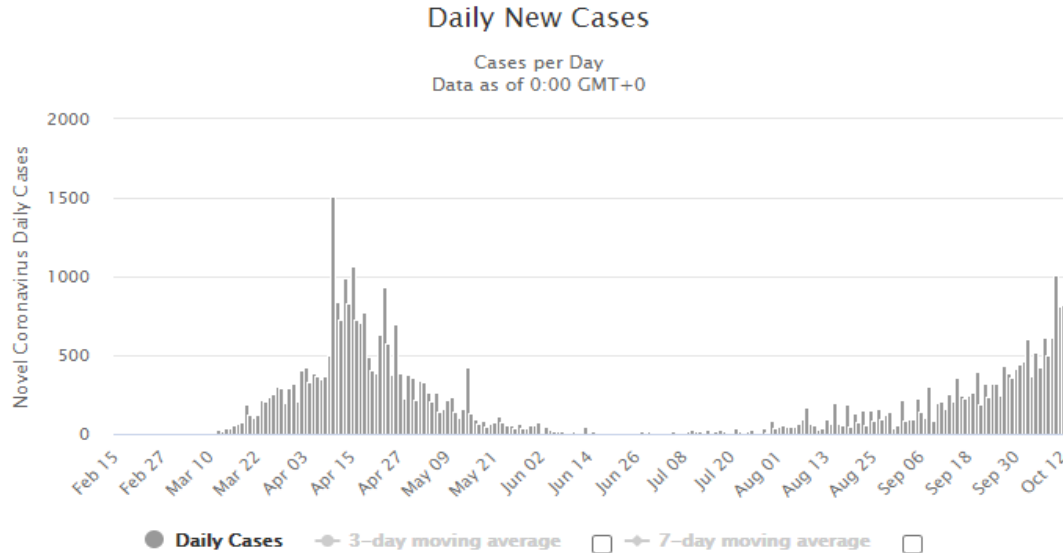| #	Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop	Deaths/ 1M pop	Total Tests	Tests/ 1M pop	Population
	World	38,816,933	+86,752	1,098,037	+1,716	29,163,283	8,555,613	70,588	4,980	140.9			
1	USA	8,154,627	+4,584	221,888	+45	5,279,984	2,652,755	15,219	24,594	669	121,569,440	366,655	331,563,370
2	India	7,309,164	+4,094	111,337	+26	6,383,441	814,386	8,944	5,282	80	91,226,305	65,920	1,383,900,778
3	Brazil	5,141,498		151,779		4,568,813	420,906	8,318	24,139	713	17,900,000	84,039	212,995,110
4	Russia	1,354,163	+13,754	23,491	+286	1,048,097	282,575	2,300	9,278	161	52,279,734	358,196	145,952,681
5	Spain	937,311		33,413		N/A	N/A	1,652	20,045	715	14,590,713	312,034	46,760,051
6	Argentina	931,967		24,921		751,146	155,900	4,316	20,566	550	2,283,577	50,393	45,314,994

Role for National Statistical Offices

- NSO knowledge is an important input to ensure that data are collected from an early stage in a harmonised manner nationally and internationally

- Hospitals, nursing homes, etc. need to be given clear guidelines on what information needs to be collected from persons who are tested or who have contracted the virus

- The data system should be sufficiently integrated to record symptoms, test, result and other dates such as hospitalisation or mortality

- Use an international standard daily reporting period (e.g. midnight to midnight)

- Procedures for data revisions (incorrect diagnoses, delayed reporting) need to be agreed e.g. a confirmed case result on 15th April that was reported on 29th April should not solely be classified to the 29th April to prevent false peaks in the daily counts

- Disaggregation is very important in understanding how the virus is spreading (private households, nursing homes, detailed geography, community transmissions, etc.)

- Use of NSO statistical legislation to facilitate access to confidential anonymised microdata by approved specialist researchers. Willingness of CSO in Ireland to undertake this role reduced the burden of data management on health authorities and ensured the data could be fully analysed by epidemiologists
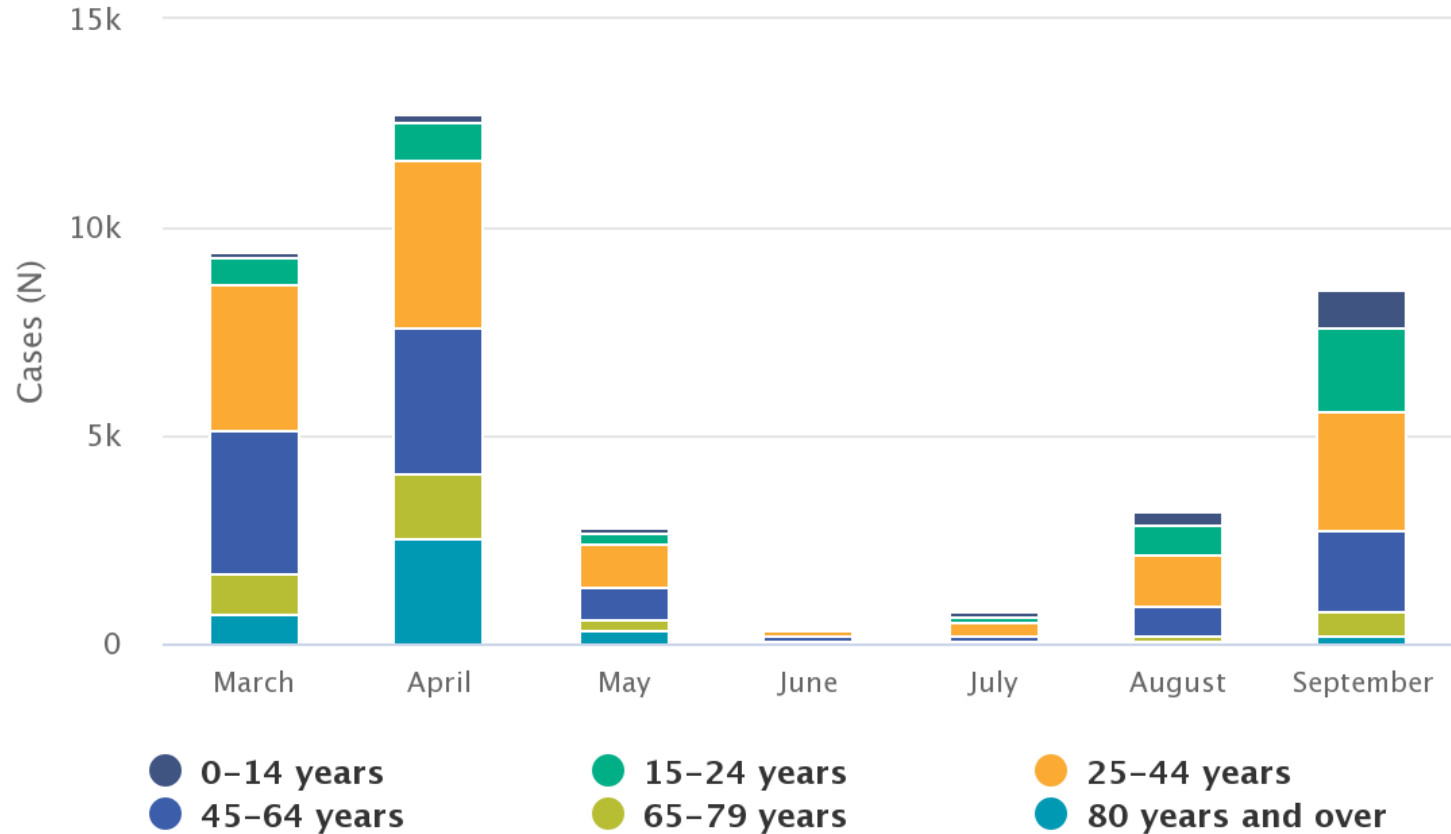
https://www.worldometers.info/coronavirus/country/ireland/

Daily New Cases

Cases per Day
Data as of 0:00 GMT+0

April 10th included a large backlog from German laboratories

Figure 1 – Monthly Cases by Age Group

Cases (N)

15k

10k

5k

0

March April May June July August September

- 0–14 years
- 15–24 years
- 25–44 years
- 45–64 years
- 65–79 years
- 80 years and over

Impact on Economy and Society

- COVID-19 required new NSO data collections so its impact could be measured

- Needed to be done quickly so amendments to existing short-term data collections was the most efficient approach. Special modules or questions were added to existing household and enterprise surveys.

- Statistics were needed on the impact on employment, incomes, and personal wellbeing

- Statistics on how enterprises in different sectors were managing financially were needed

- Statistics on adherence to control measures were needed e.g. restricted movement and commuting

New CSO Questionnaires

Social impact of COVID-19

- https://www.cso.ie/en/media/csoie/methods/socialimpactofcovid-19onwomenandmen/Social_Impact_of_COVID-19_questionnaire.pdf

Business impact of COVID-19

- **https://www.cso.ie/en/media/csoie/methods/businessimpactofcovid-19/Business_Impact_of_COVID-19_Survey_Form_27_July_2020_to_23_August_2020.pdf**

https://www.cso.ie/en/releasesandpublications/ep/p-covid19/covid-19informationhub/economy/

Economy

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Measuring the Impact of COVID-19

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> Business Impact of COVID-19 Survey: More than 96% of enterprises trading in some capacity `UPDATED`

> Industrial Production down 14.1% in August 2020 `UPDATED`

> Annual Manufacturing Prices decrease by 8.4% in July `UPDATED`

> Seasonally adjusted trade surplus fell by €1.4 billion in July `UPDATED`

> New spending on debit and credit cards increased significantly to €1,450 million by mid September, a rise of 65.8% compared to mid-April `UPDATED`

> Volume of sales increased by 1.3% in August 2020 `UPDATED`

> Prices fall by 1.2% in the year to September 2020 `UPDATED`

> Residential property prices decrease by 0.6% in the year to August `UPDATED`

12.2%
rated their Overall Life Satisfaction as 'High'
compared to:
44.3.% in 2018
31.4% in 2013

42.4%
rated their Satisfaction with Personal Relationships 'High'
compared to
60.0.% in 2018
60.2% in 2013

% of respondents whose Consumption has increased or decreased since introduction of restrictions*

Alcohol Consumption
up **22.2%**
down **17.2%**

Tobacco Consumption
up **30.5%**
down **8.6%**

Frequency of Exercise
up **37.1%**
down **33.2%**

Junk Food and Sweets
up **45.4%**
down **12.3%**

Time spent watching TV
up **44.3%**
down **9.2%**

Time spent on the Internet
up **59.1%**
down **2.8%**

*of those that already partake in the behaviour

% of respondents Concerned about household stress from confinement

Not at all
23.2%

Somewhat
59.6%

Very
17.3%

26.6%
reported **Feeling lonely 'All/most/some of the time'**
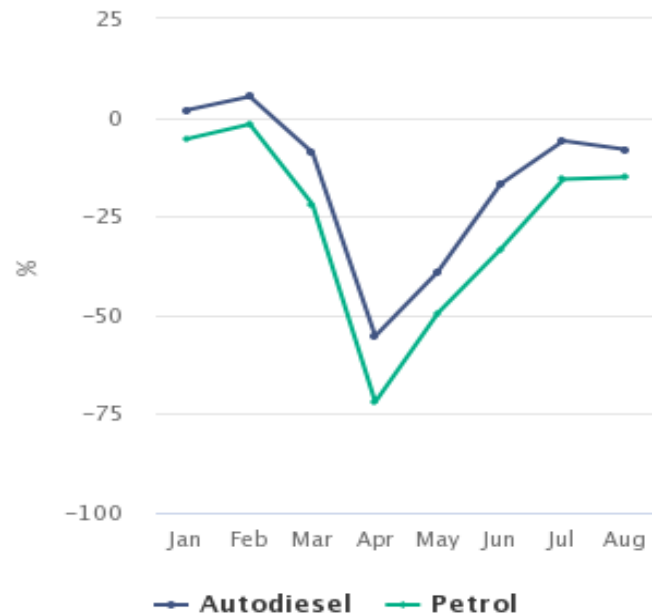compared to **16.9%** in 2018

37.5%
have been **Negatively financially impacted**
by COVID-19

Fuel Clearances January-August 2020

- monthly data

- four-week timeliness

- autodiesel = commercial

- petrol = domestic use

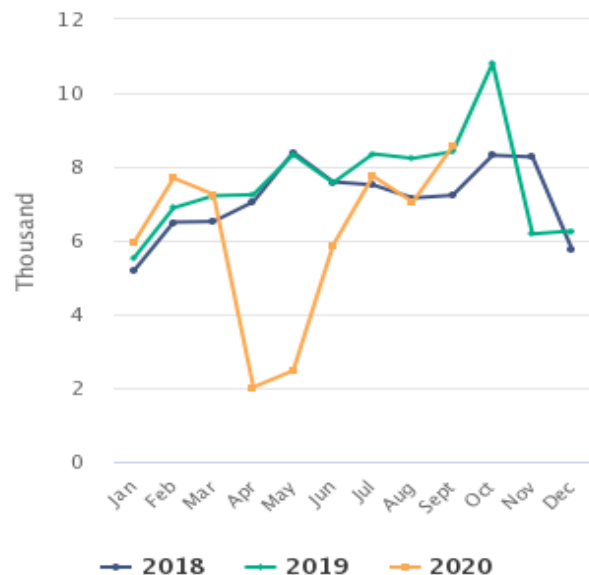Figure 1: Fuel Excise Clearances January-August 2020/2019 % Change
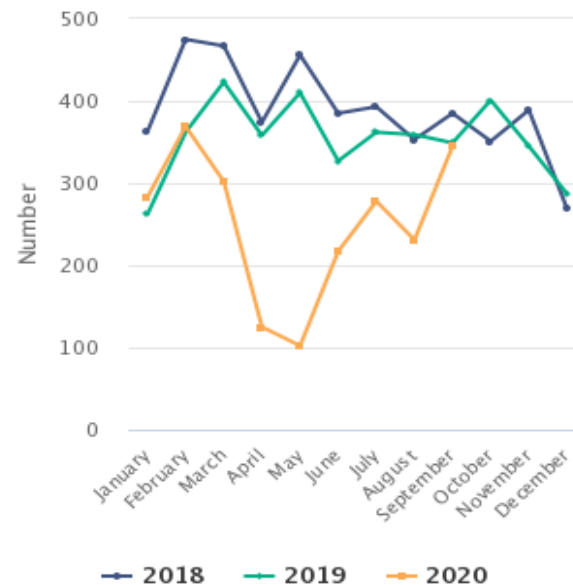
Source: CSO Ireland

Building Energy Ratings

Figure 1: Number of Domestic BER Certificates published in 2018–2020
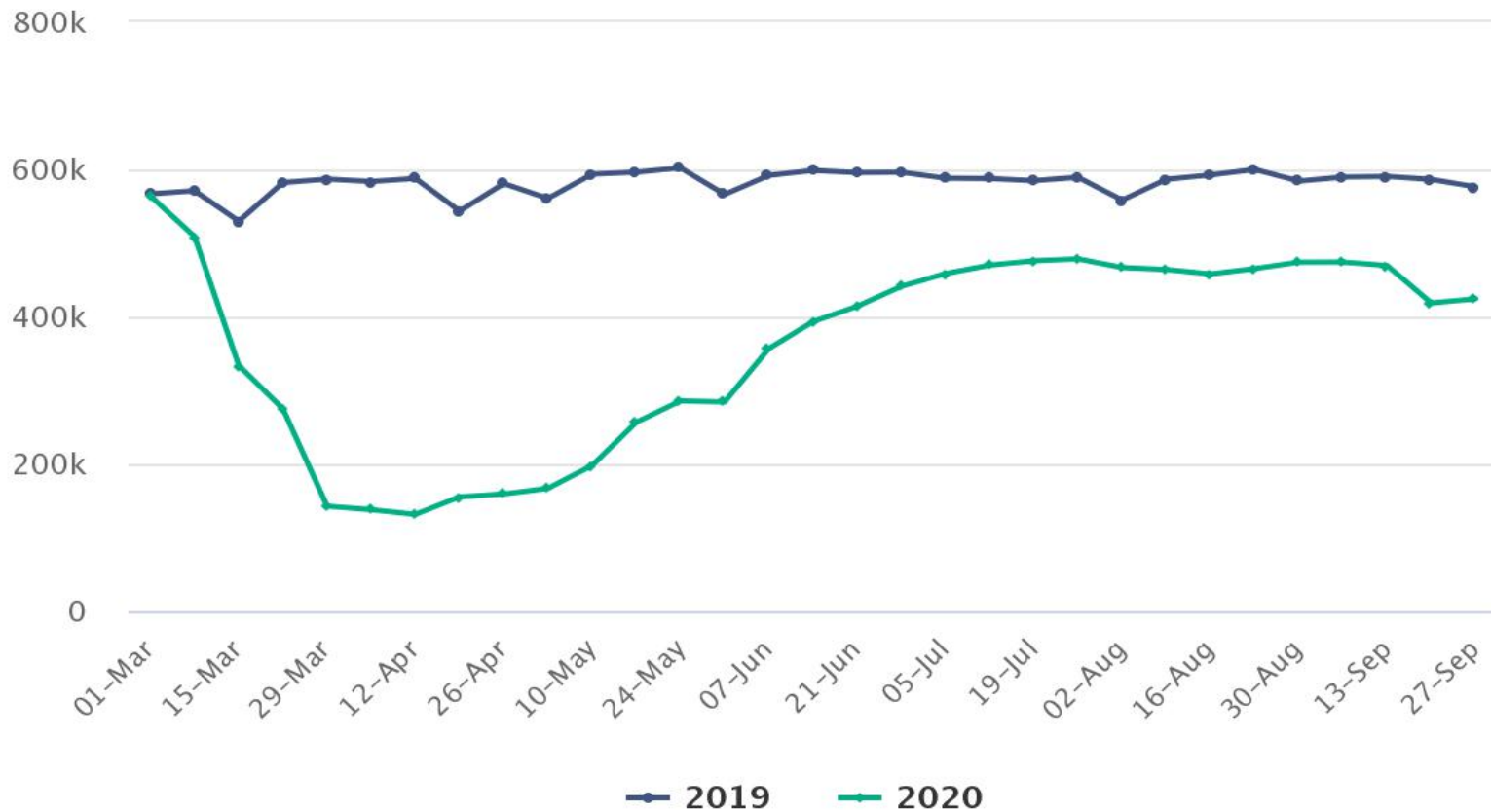

Source: CSO Ireland

Figure 1: Number of Non-Domestic BER Certificates published 2018–2020

Source: CSO Ireland

Figure 1 Average weekly volume of cars at selected Dublin sites

Source: CSO Ireland

Overseas Air and Sea Travel Jan-Aug 2019 and 2020

Overseas arrivals and departures, January-August 2019 and 2020 (000's)							
Mode	**Arrivals**				**Departures**		
	2019	**2020**	**Change**		**2019**	**2020**	**Change**
Air	12,901	3,542	-73%		12,958	3,526	-73%
Sea	920	234	-75%		926	251	-73%

Environment-relevant Behaviour Changes

- Reduced commuting to work, shopping, and socialising

- Increased waste generation at home and decreases in workplaces, restaurants, etc.

- Increased exercise to maintain health (importance of local parks in urban areas)

- Role of internet and social media to maintain work and social communications

- Some of these changes may continue in a post-pandemic World e.g. more working from home, reduced traffic congestion, improved air quality

- Employer decisions may lower demand for office space

- Working from home could have a substantial medium-term change on employment practices, commuting, and living locations

- Energy-efficiency of dwellings and home indoor air quality will become more important quality of life and health issues

Conclusions

- Accurate daily and time series statistics are needed on a pandemic

- NSOs have the required skills and legal basis to contribute especially in facilitating microdata research

- NSOs can respond quickly by adding questions and modules to existing short-term data collections and accessing relevant administrative data

- Quality of COVID-19 time series data needs to be reviewed and maintained by statisticians

- Short-term environment and energy statistics need to be developed particularly in relation to housing conditions from an environmental, energy use, and health perspective

- NSOs should develop internet rather than interviewer-based household data collection on environmental behaviours

- NSOs should make more use of real time and short-term data on air quality, private and public transport trends, and domestic segregation of waste into landfill, recyclable, and composting

- Collection of health statistics by health agencies and NSOs should be well integrated

- Importance of access to urban blue and green spaces for wellbeing during a lockdown