

The Norwegian experience controlling the Coronavirus -SARS-CoV-2- pandemic

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Objectives:

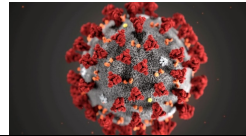
- **Discuss Norwegian preparedness**
- **Evaluate the opinions to stop or to slow down the pandemic (National Institute of Public Health versus the government's position)**
- **Discuss the development of the pandemic in the Nordic countries and the effect of different infection control measures**
- **Report on the current situation**

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Some facts concerning the Coronavirus

- Detected in Wuhan, China, December 2019 (from bats?) [https://doi.org/10.1016/S0140-6736\(20\)30183-5](https://doi.org/10.1016/S0140-6736(20)30183-5)
- SARS-CoV-2; severe acute respiratory syndrome Coronavirus 2
- Coronavirus family- genus Betacoronavirus – RNA-virus with envelope and spikes
- Pathogenic species: *SARS-CoV-1*, *MERS-CoV*, and *SARS CoV-2*
- Person- to person- transmission – very easily
- By contact, droplets and by aerosols- airborne
- **Airborne may be the main way of transmission, like SARS-1**
- **Asymptomatic carrier rate is high- a huge problem**

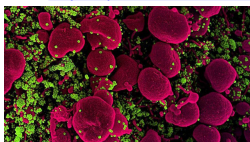


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Important qualities for survival and spread

Does not like temp. over 24 degree C, high air humidity and is airborne

- **Tolerates dry environment better than humidity - and lower temp. better than higher**
- **Survives in dried form 3-5 days + and in solutions 7 days +** at room temp. Chan et al. JHI <https://www.sciencedirect.com/science/article/pii/S019567012030339X>
- **A high load of virus may survive for 28 days at 20 C on surfaces** Riddell, S., Goldie, S., Hill, A. et al. The effect of temperature on persistence of SARS-CoV-2 on common surfaces. Virol J 17, 145 (2020). <https://doi.org/10.1186/s12985-020-01418-7>
- **Survives in aerosols in up to 16 hours**
<https://www.nejm.org/doi/full/10.1056/NEJMc2004973>
<https://www.hiqa.ie/sites/default/files/2020-08/Evidence-summary-for-airborne-transmission-of-SARS-CoV-2-via-aerosols.pdf>
- **Aerosols of living virus may reach at least 6 m (up to 16m)**
<https://www.sciencedirect.com/science/article/pii/S1201971220307396>
<https://pubmed.ncbi.nlm.nih.gov/33664169/>



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Start of the pandemic

WHO situation report 1, 21. January 2020

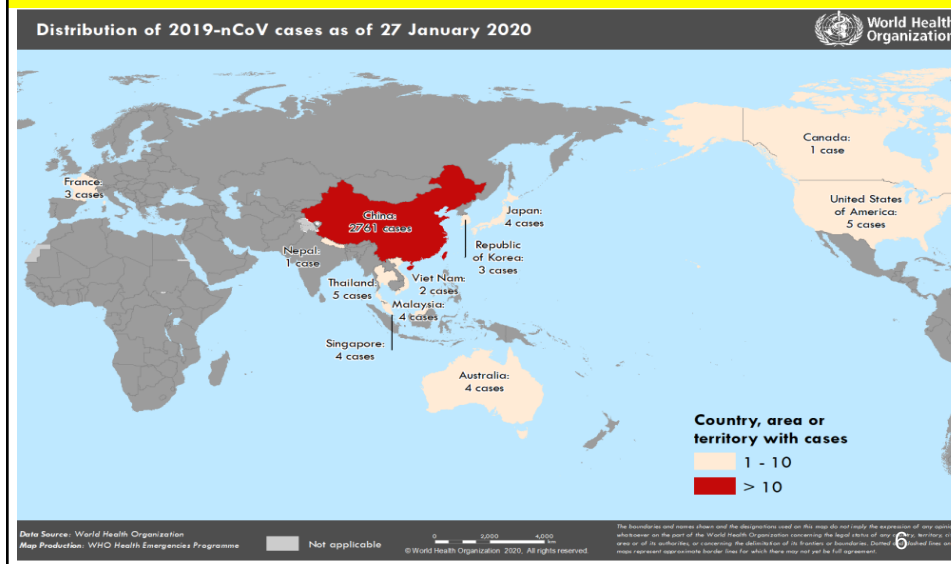
- 31 December, 19: Pneumonia - in Wuhan: WHO China Country Office
- 7 January, 20: a new type of coronavirus
- 12 January, 20: China shared the genetic sequence for diagnostic kits and vaccines
- https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn=20a99c10_4

Declaration by WHO:

- 30 January, 20: Coronavirus outbreak - a Public Health Emergency of International Concern (PHEIC), WHO's highest level of alarm. [https://www.who.int/news/item/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news/item/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))
- 11 March, 20: «Pandemic situation» – virus not airborne, only droplets within one meter, says WHO
- 13 March, 20: Europe the epicenter of the pandemic

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WHO: Coronavirus 27 January 2020 Only 37 cases outside China!



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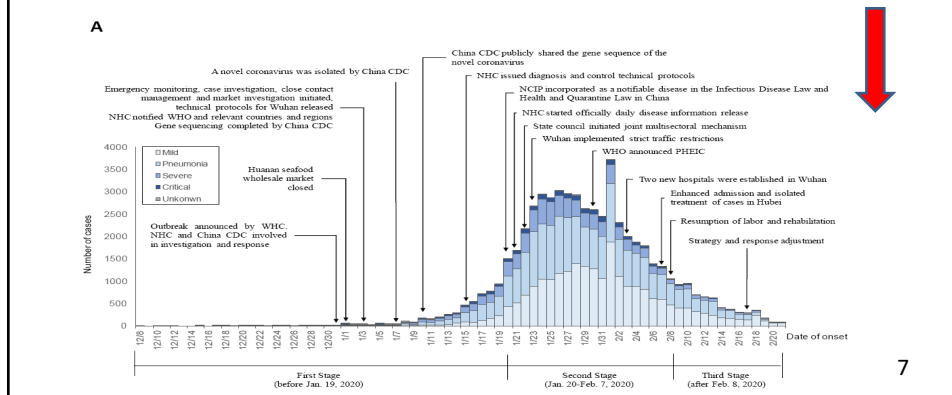
Report of the WHO-China Joint Mission on Coronavirus Disease

25 international experts working in China 16-24 February 2020

described the outbreak in China **16-24 February 2020** WHO

<https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>

Control over the epidemic after 2-3 months in China



Report of the WHO-China Joint Mission on Coronavirus Disease 2019

25 international experts working in China 16-24 February 2020

<https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>

- “China’s uncompromising and rigorous use of non-pharmaceutical measures to contain transmission of the COVID-19 virus in multiple settings provides vital lessons for the global response.
- This rather unique and unprecedented public health response in China reversed the escalating cases in both Hubei, where there has been widespread community transmission, and in the importation provinces, where family clusters appear to have driven the outbreak.”
- - The rapid adaptation and tailoring of China’s strategy demonstrated that containment can be adapted and successfully operationalized in a wide range of settings.”

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Response Strategy from WHO-China Joint mission 16-24 February 2020

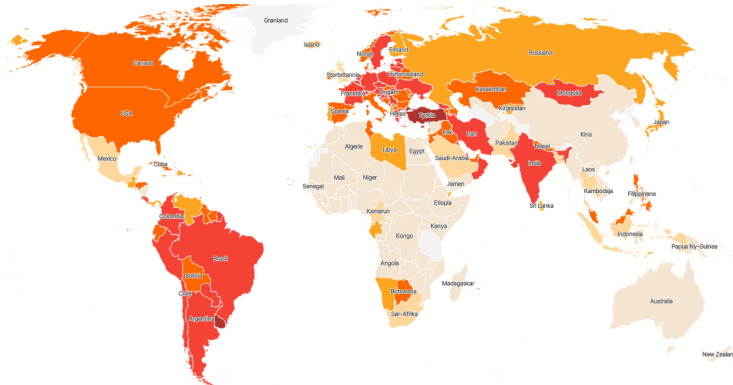
The Joint Mission developed early strategy and major advices
Success was presented as dependent on fast decision-making
by top leaders, operational thoroughness by public health
systems and societal engagement.

The epidemiological situation was defined into four local areas/situations:

- **In areas without cases:** "strictly prevent introduction". This includes quarantine, monitoring temperature, strengthening triage, use of fever clinics--
- **In areas with sporadic cases,** "reducing importation, stopping transmission and providing appropriate treatment".
- **In areas with community clusters** "stopping transmission, preventing exportation, and strengthening treatment".
- **In areas with community transmission,** "the strictest prevention and control strategies, stop at borders of these areas--." <https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>

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Still a huge problem in the world; 2.5 2021



152.3 million cases, 3.2 million deaths (2.1%)

The highest numbers of new cases were reported from India (2 172 063 new cases; 52% increase), the United States of America (406 001 new cases; 15% decrease), Brazil (404 623 new cases; 12% decrease), Turkey (378 771 new cases; 9% decrease), and France (211 674 new cases; 9% decrease).

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Start in Norway

- Norway, 5.3 mill inhabitants
- First Covid-case 26. Febr 2020 – import
- Skiers took crisis home from Tyrol
March 22, 2020



In February, -"lots of businessmen and colleagues flew to Austria for a week of skiing and partying, only to bring home what's turned into a health- and economic crisis."
" DN, 11

"WAIT AND SEE."

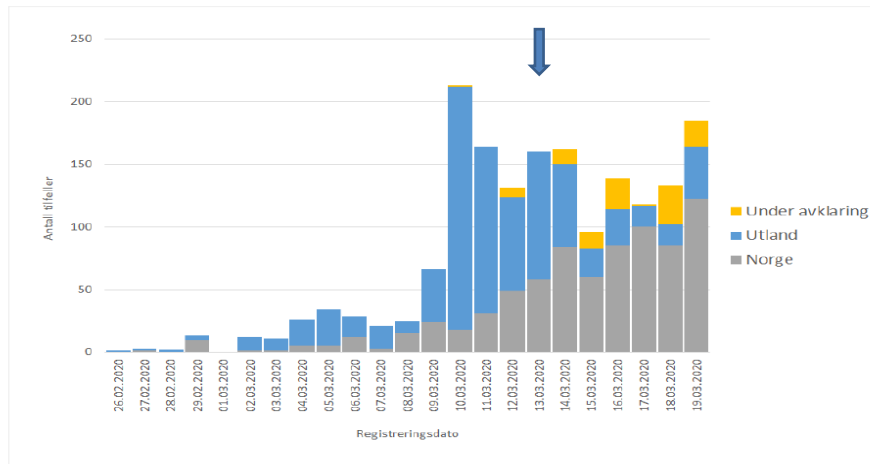
The corona epidemic in Norway. A wait and see - attitude- not prophylactic. In: Den Solbergske staten.
<https://www.haugenbok.no/den-solbergske-staten/9788292945650>

- Neither the Norwegian Institute of Public Health (NIPH) nor the Norwegian Directorate of Health took the consequences of "global alert" from the WHO. <https://www.dagensmedisin.no/artikler/2020/09/02/karantenemotstanden-til-fhi-er-en-gate/>
- NIPH possibly went for "mitigation" of the epidemic, while the go-ahead from the World Health Organization (WHO) was that the epidemic needed to be stopped (pressure).
- NIPH would nevertheless "wait and see" if there was a spread in Norway and leave the borders open for 2,000–3,000 infected Norwegian tourists from holidays in northern Italy, Austria and Spain to return without any kind of border control or quarantine.
- These were the basis for the pandemic to accelerate in Norway and that few people talk about.

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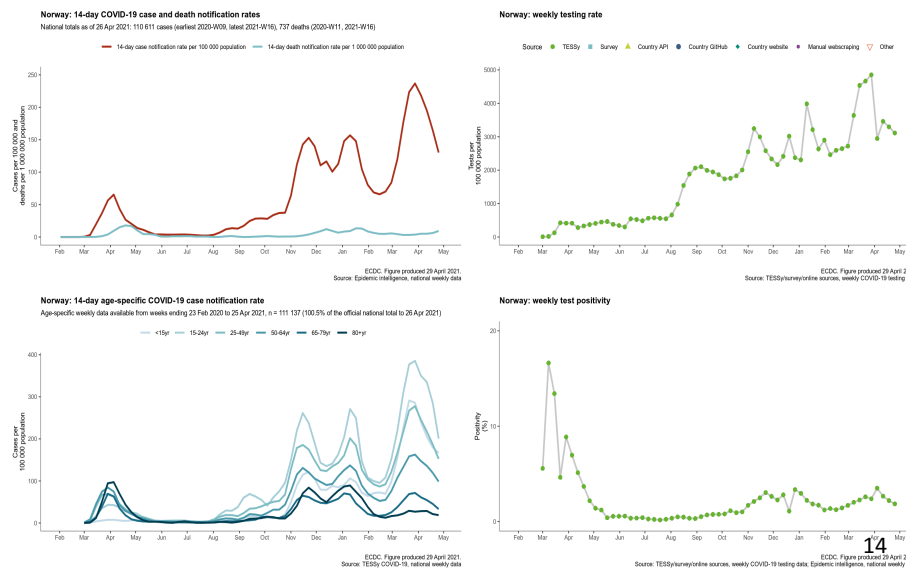
More than half of the cases(53%) were from abroad; Austria (550) and Italy (153).
Lock down 12. March



Figur 1. Antall påviste covid-19 tilfeller i Norge fordelt på smittested

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Development of the pandemic in Norway per week 16
 113 300 cases and 760 deaths (0.7%) (ECDC)



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NORWEGIAN PREPAREDNESS

-weak and slow-

The Norwegian National Institute of Public Health (NIPH) -
**informed 28. January that Coronavirus is an
«influenza-like illness- not so easy to transmit»**

- When Corona-infected, Norwegian ski-enthusiasts came back to Norway from the Alps in late February 2020, there was
- **No preparedness** for the pandemic
- **No border control or restrictions**
- **No quarantine for infected/exposed persons**
- **Too few isolates for infected patients**
- **No official emergency plans** for taking care of pandemic virus infection
- **Empty stocks of PPE** and other medical equipment like respirators.
- **No test capacity.** From March 13. during April – most corona patients were not tested. Still the health authorities said: «The test capacity in Norway is good»! Further on, there was a very low test-capacity until autumn 2020.

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The Government's handling of the corona pandemic – did not plan for non-pharmaceutical measures

- “Norwegian national risk analyses had just several times earlier pointed out pandemic as that scenario there was the highest risk of in Norway.
- - but the authorities were not prepared when the extensive and severe COVID-19 pandemic came.- The official Norwegian Corona Commission-1. 14.4.21
- Infected healthcare personnel were predominating during the first period in Norway (NIPH), because of lack of PPE, etc. “When the pandemic started there were masks only for four weeks *normal use* in Norway!”
- The authorities and experts had not understood how to prepare for pandemics since PPE and other lifesaving equipment was not included.
- Pandemic plans are dependent on non-pharmaceutical measures to contain transmission of infections like the COVID-19 virus.
- No pandemic plan was made for primary health care since pandemic patients should be treated at hospitals.

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Low political commitment and infection control knowledge at the national level, in contrary to the advices from WHO.

- The responsibility for patients and infection control- was placed down on each separate county administration that - had shortage of equipment like PPE, masks, isolation rooms or other measures to protect personnel and patients – and with no guidelines.
- The primary health care service was not prepared for this extended burden, and it had never been expected or planned that they should have this responsibility, either.
- Municipalities ran out of infection control equipment in March and April. The Norwegian Directorate of Health acknowledged that the preparedness was “not sufficient”.
- This lack of equipment caused deadly outbreaks in many nursing homes.



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The CORONA leadership and political commitment in Norway:

Four-headed leadership

- Primeminister, Erna Solberg
- Minister of Health, Bent Høie
- Health Director, Bjørn Guldvog
- Director of NIPH, Camilla Stoltenberg

No response concerning

1. Disease progression and severity – »influenza like» - «cough in your elbow and wash your hands»
- 2.«Transmission risk- within one meter» from the patient- «not airborne»
- 3.Stocks of PPE and other materials were empty
- 4.Preparedness-guidelines for pandemics were not finished
- 5.No border restrictions or health quarantine («no effect», said NIPH)
- 6.No travel restrictions
- 7.No lockdown – until 12. March
- 8.No public restrictions

Norway started like Sweden

The highest level of national response protocols were not working

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Stop or slow down? – suppress or mitigate? 12. March 2020 declared the Government: lockdown

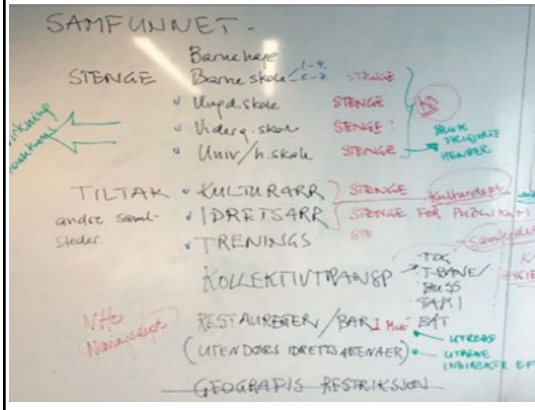
- Internal discussion and disagreement between top leaders
- NIPH did not agree: «*lockdown was too early –had no effect*»
- This was overrun by the Government
- <https://www.koronakommisjonen.no/files/2021/04/Kommisjonens-hovedbudskap.pdf>
- And the public went for shut down as a kind of Norwegian voluntary work!!



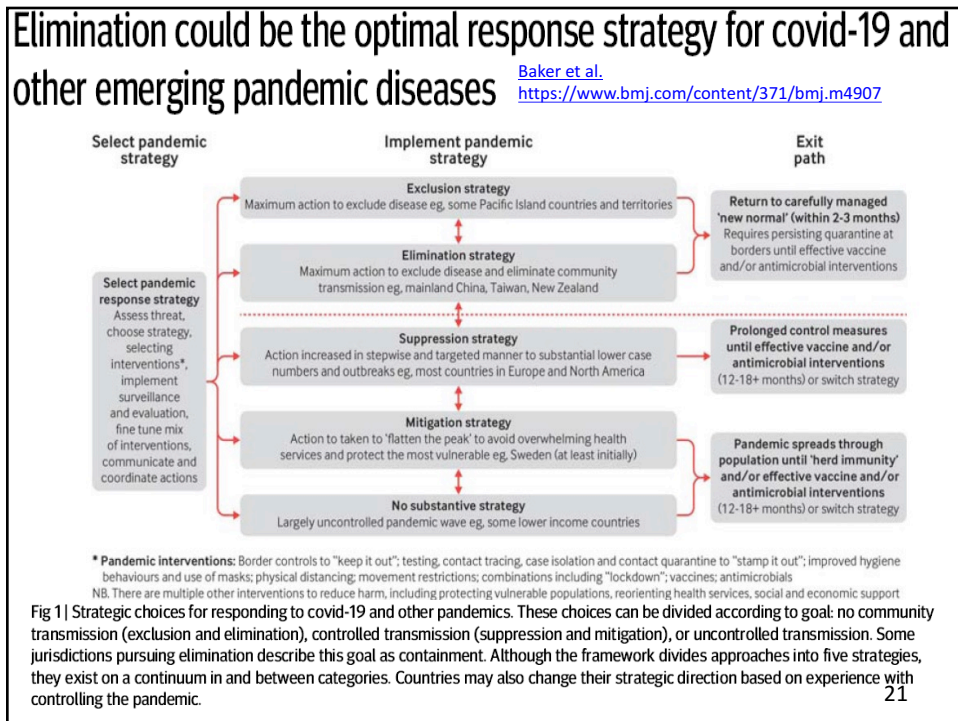
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Few or no notes from the meetings concerning lockdown 12. March

When the Corona commission asked the authorities for all documentation concerning the decision of lockdown, important notes and info on mobilphones etc -were deleted. Only a board with a few notes were left. <https://www.aftenposten.no/norge/i/PR8obX/da-granskene-kom-var-viktige-sms-er-og-notater-slettet-naa-maa-medarb>



<https://www.aftenposten.no/meninger/kommentar/i/R975z8/en-kort-historie-om-surr-og-rot> 20



National public health institute (NIPH) did not want lockdown

NIPH in e-mail to the Norwegian Directorate of Health on 17 February 2020:

• *"It is unlikely to be appropriate to advise closing schools, imposing a work ban or "isolate people in geographically delimited areas, close businesses such as airports, hotels, cruise ships etc. or to stop communication» when dealing with coronavirus outbreaks in Norway.*

Another memo from NIPH to the Norwegian Directorate of Health, 7 March

- *"most events can be kept as normal."*
- *"the benefits of border quarantine is small",*
- *"for the time being, there is good to shake hands in Norway".*

Corona commission evaluation 14.4.21

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«Behind closed doors - when the pandemic struck Norway»

The four-headed leadership in Norway were in conflict,
«The National Institute of Public Health- versus the Directorate of Health»

Mail from Director of NIPH: Who should manage the pandemic?*

- Conflicts around weak and missing preparedness
- Indistinct roles, leadership and responsibility
- Incorrect and confusing guidelines- changed >170 times!
- Double-work, blunders, disorders, misunderstanding
- Persons without knowledge participated
- «We (NIPH) are still the specialists in infection control»
- Important tasks and questions were not solved
- Conflicting advices»
- Conflicts concerning interpretation of :
 - The Norwegian Law of a) Infection control and b) Health Preparedness
- The National Institute of Public Health- against the Directorate of Health»*

*Director of National Institute of Public Health; Camilla Stoltenberg- in mail to the Coronacommission (Aftenposten 10.4.2019) <https://www.aftenposten.no/norge/i/nA2EOx/oppgjoeret-konfliktene-rotet-tabbene-det-gikk-hardt-for-seg-bak-luk>



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Still confused?

Such are the different layers of measures and rules

- **National measures:** The Government introduces national rules and recommendations based on the advice of the Directorate of Health and the Public Health
- **Regional measures:** The Government may introduce stricter measures in individual municipalities after dialogue with the health authorities, the state manager and the individual municipality. Follows incremental levels from A (strictest) to C.
- **Local measures:** The municipality, with a legal basis in the Infection Control Act, allows municipalities to create local infection control regulations with rules and recommendations that are more stringent than the national measures.

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Confusion about infection control advices and guidelines – during lockdown

<https://www.aftenposten.no/norge/i/we27Gd/folk-flest-og-ekspertene-har-noe-viktig-til-felles-forvirring-om-smit>

- Most people and experts were confused by all the changing infection control rules, injunctions, recommendations and exhortations.
- Closed shops in some places, but with many exceptions. Open in the neighboring municipality. Ban on events, but only in some places. And what is an event, really? Yellow and red levels and A,B, C and D zones of risks, and ring 1,2, and 3 of risks etc.
- Top politicians and most people were struggling to understand the rules of infection control. Police officers and professors of law were also in doubt. In the past year, the National Corona Regulation was amended 174 times!
- Even our Primeminister Erna Solberg was fined 20 000 Nkr because of not following the rules when celebrating her 60 years!



The Norwegian problem was:

we did not follow the important advices from WHO-China Joint Mission concerning:

Response Strategy in uninfected countries

<https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>

1. Prepare to immediately activate the highest level of emergency response mechanisms to trigger the all-of-government and all-of society approach that is essential for early containment of a COVID-19 outbreak;
2. Rapidly test national preparedness plans in light of new knowledge on the effectiveness of non-pharmaceutical measures against COVID-19; incorporate rapid detection, largescale case isolation and respiratory support capacities, and rigorous contact tracing and management in national COVID-19 readiness and response plans and capacities;
3. Immediately enhance surveillance ----
4. Enforce rigorous application of infection prevention and control measures in all healthcare facilities, especially in emergency departments and outpatient clinics, as this is where COVID-19 will enter the health system;
5. Rapidly assess the general population's understanding of COVID-19---- 26

**We did not follow the important advices from Joint Mission -
For countries with imported cases and/or outbreaks of
COVID-19**

1. Immediately activate the highest level of national response -- protocols to ensure the all-of-government and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;
2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. Fully educate the general public--
4. Immediately expand surveillance to detect COVID-19 transmission chains, ----
5. Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of large-scale gatherings and the closure of schools and workplaces).

<https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>

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**Lockdown and closure of kindergartens and schools in
Norway looked like an obstacle for politicians.**

- They thought that open schools would save the economy; industry and trade. This was misunderstood.
- It is "a tool that must be taken out of the toolbox", said the Minister of Education who, even at a high infection rate, still wanted to keep schools and kindergartens open.
- Therefore, the closure of schools and kindergartens was the last tool in the toolbox before the full lockdown of the society.
- In addition, the students and teachers should not wear masks to prevent infection, as decided by the NIPH!
- But- it is not wise and correct that children, young people, families and teachers are constantly placed in the front line of the war against the Coronavirus when infection can be avoided!
- The unclear advices and rules from the Directorate of Education and the NIPH create additional virus transmission pressure in the society together with new virus variants in November-December 2020.

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To close or not to close schools, kindergartens, universities etc

- <https://www.gd.no/barn-ungdom-og-larere-blir-ikke-skjernet-for-koronaviruset/o/5-18-1324122>
- Norwegian industry and trade were shielded with large economic package solutions, while children and young people were exposed to infection in often worn-down, overcrowded and poorly ventilated schools.
- The Minister of Education claimed in the spring 2020 that "children are safe, are not infected and do not carry the infection further." This was in accordance with the government's desire to keep the "economy going on."
- But the virus did as most viruses do; spread rapidly and vehemently. And with a good speed in the population- especially among children and young people, the mutations from UK, Africa, America etc. increased the outbreak during the winter 2021.
- Still-today there is nearly free border crossing for the virus and its mutants, by labor immigration and day commuters and transport from dark red countries.
- Trade, industry, tourism and economy seem still to be more important for the government than protecting children, young people, teachers and family, in our country.

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Little is done to stop the transmission of Coronavirus in the education system in Norway

- Large resources should be put into infection control in schools and kindergartens – but it is not.
 - No plans for upgrading the entire school system with building, area and ventilation and sanitary conditions.
 - No smaller class units (preferably under 15 students)
 - **No two meters between each student in the classroom.**
 - **No obligatory use of masks, not even for the teacher and other personnel**
 - **No system for class-bound and enough teachers that may prevent the spread of infection between classes.**
- No exact order concerning system for the use of masks, testing, tracking, quarantine/isolation for 14 days during increased infection pressure and no follow-up to secure that the virus is completely gone.
- This is not well implemented in Norway.

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Why indoor spaces are still prime COVID hotspots
Risks shoot up when virus particles accumulate in buildings,
but it's not clear how best to improve ventilation.

<https://www.nature.com/articles/d41586-021-00810-9>



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Distance between school desks at a school in Madrid is in accordance with Corona-advice. Foto: Andrea Camas, AP/NTB

The nursing home scandal

Corona infection at twelve nursing homes in Oslo-
The number of infected people in nursing homes in Oslo
increased 4 times during three days



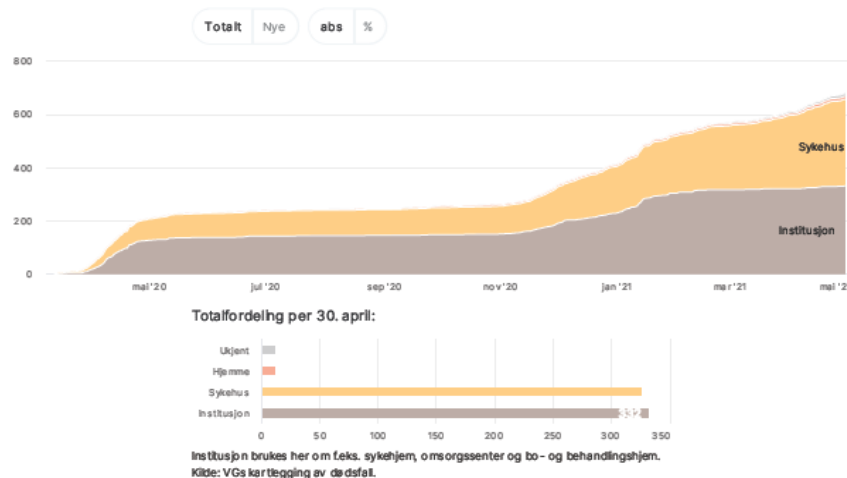
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Nursing home patients were exposed to infections instead of being protected- they were infected by the staff

- From 29. February 2020, corona-sick nursing home patients **should not be treated in** hospitals. This was decided by the Norwegian Health Department and NIPH. <https://www.fhi.no/nettpub/coronavirus/helsepersonell/sykehjem-og-smittevern-mot-covid-19/>
- The number of sick and dead Corona patients in elderly institutions increased rapidly because of complete lack of PPE, isolation possibilities and healthcare workers. The patients were isolated from their loved ones and for many a troublesome death in "their own bed in the nursing home". More than half of the patients died. <https://www.dagbladet.no/kultur/gikk-inn-for-en-dodelig-prioritering/72427033>
<https://tidsskriftet.no/en/2020/06/originalartikkel/outbreak-covid-19-three-nursing-homes-bergen>
- Priority notes from the Norwegian Health Department was largely based on a concern for lack of intensive capacity and of PPE in the hospitals.
- They did not understand the overall consequences this decision would have for patients and healthcare workers in primary healthcare; that this would fire up and increase the spread of infections.
- https://www.koronakommisjonen.no/files/2021/04/Koronakommisjonens_rapport_NOU.pdf

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Almost half of corona-deaths occur in nursing homes (NIPH)



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Social distancing of one meter is a provocation for the population

When Health Minister stands with the meter in front of the Norwegian people on television and shows the "social distance" for the coronavirus – he does not mean this in earnest, does he? The reach of the coronavirus cannot be managed politically. When the virus's range shrinks from "at least two metres of social distance" to just "one metre of social distance," infection barriers are torn down in the population.

<https://klassekampen.no/utgave/2020-06-25/den-puslete-meterstokken>



ONLY ONE METRE? (80cm)

Social distancing of one meter is a provocation for the population, the author writes. Here, Minister of Health and Care Services Bent Høie shows off the meter stick at a press conference on 17 June. PHOTO: TERJE PEDERSEN, NTB SCANPIX

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No border control and quarantine during summer, autumn, winter 2020

- Labor immigrants, day commuters, transporters from dark red, infected countries crossed Norwegian borders without quarantine and control.
- Control/quarantine of these people was bypassed by the industry, trade, healthcare and tourism by "misunderstanding", easy solutions, short-cuts and bluff.

Corona Scandal on the Hurtigruten Cruise in Norway

- Employees from countries with a high corona risk should be quarantined when they come to Norway.
- Nevertheless, they worked as normal with passengers on board the MS "Roald Amundsen" during the quarantine period.
- Hurtigruten did not do anything even if they knew about a possible corona infection on board. More than 40 people were infected.
- The virus affected employees and passengers on two voyages between Tromsø and Svalbard in the end of July.
- The scandal spread far beyond Norway's borders; for one of Norway's most important brands, Hurtigruten.



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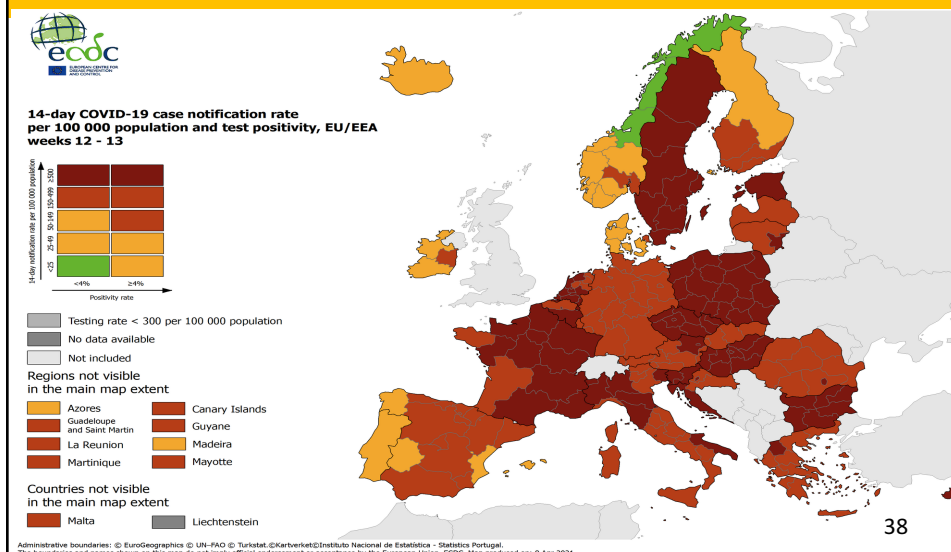
Norwegian tourists travelled to most European countries during summer 2020 and came home with new coronaviruses- there were no restrictions

The photo was taken on the beach in Spain and shows how the beach is marked up, before Spain again turned red on July 24, 2020.



<https://www.vg.no/nyheter/meninger/i/50Pd86/reiseraad-om-groenne-land-foerer-turistene-bak-lyset>

The development of the pandemic in the Nordic countries and the effect of different infection control measures



Sweden came early under fire for 'relaxed' coronavirus approach — March –and April 2020

<https://theconversation.com/sweden-under-fire-for-relaxed-coronavirus-approach-heres-the-science-behind-it-134926>

- “A growing number of Swedish doctors and scientists are raising alarm over the Swedish government’s approach to COVID-19. Unlike its Nordic neighbours, Sweden has adopted a relatively relaxed strategy, seemingly assuming that overreaction is more harmful than under-reaction.”
- 15 million people (Norway, Denmark, Finland, Iceland) have been assigned to a lockdown, while 10 million (Sweden) have been asked to simply act responsibly.
- The Swedish approach to COVID-19 could not be more different from its neighbours, placing much of the responsibility for delaying the spread of the virus and protecting the vulnerable in the hands of the public. ---with some restrictions, Swedish bars, restaurants and schools remain open.” (April 2020)
<https://www.indepthnews.net/index.php/opinion/3446-covid-19-why-the-nordics-are-our-best-bet-for-comparing-strategies>
- Even before Christmas, the Swedish King said that the country had failed to save lives during the pandemic. Swedish Prime Minister Løfven still defends the Swedish strategy- “I am listening to the Swedish expertise”- but will not be responsible for it after all. The Prime Minister have no operational responsibility.
<https://www.aftenposten.no/meninger/kommentar/i/vAJRvj/statsministeren-som-ikke-har-operativt-ansvar>

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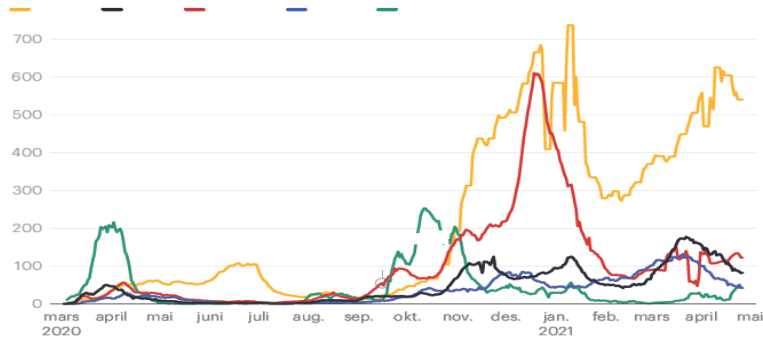
Stockholm, Sweden –versus - Oslo, Norway 23.4.21 All shops open -versus -only food/pharmacy



Still a high and increasing infection pressure in Sweden, 23.4.21

Fremdeles høyt smittetrykk i Sverige

Antall daglig registrerte smittede. Syvdagers gjennomsnitt pr. million innbyggere.



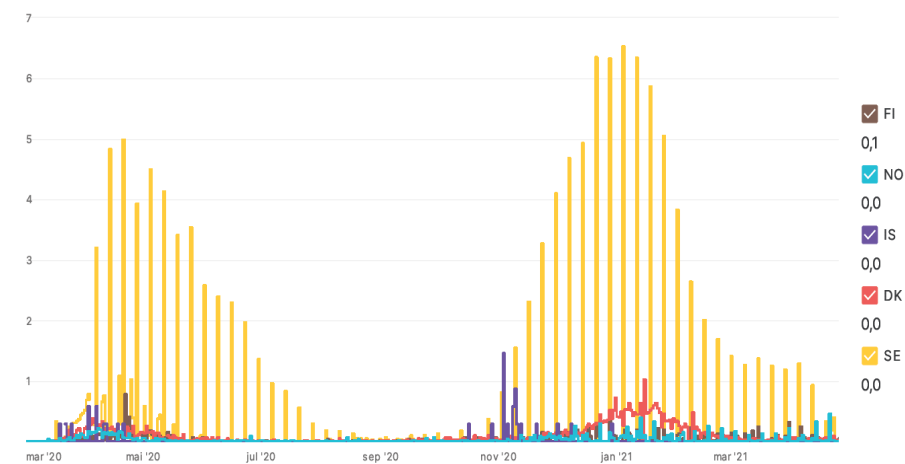
Grafikk: data@aftenposten.no • Kilde: Our World in Data

Svenskene delt

Kommentator Anders Lindberg i Aftenbladet tror ikke har noen hensikt å stenge ned eller komme med strengere tiltak nå, selv om smittespredningen er høy.

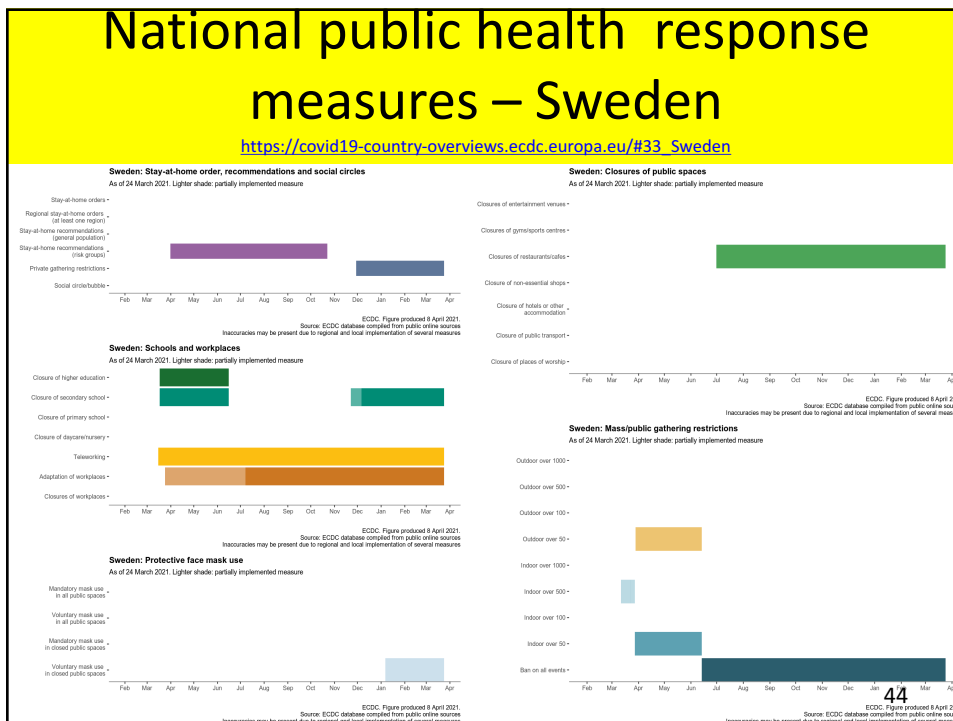
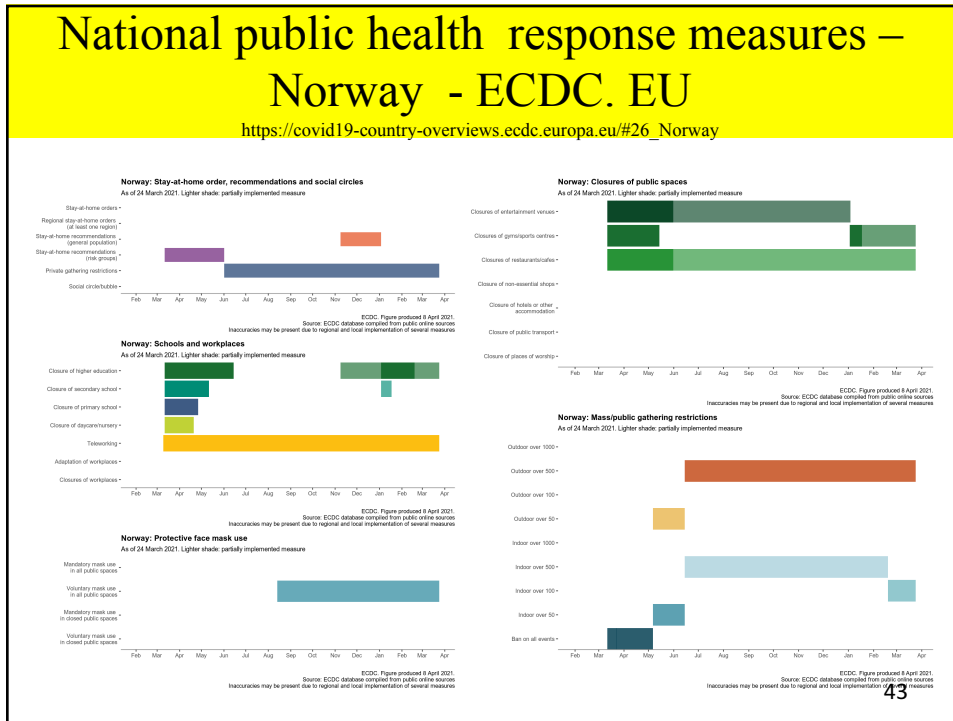
41

Daily deaths in the Nordic countries- per 100 000, 26.4.21- more than 10 times difference between Sweden and Norway---

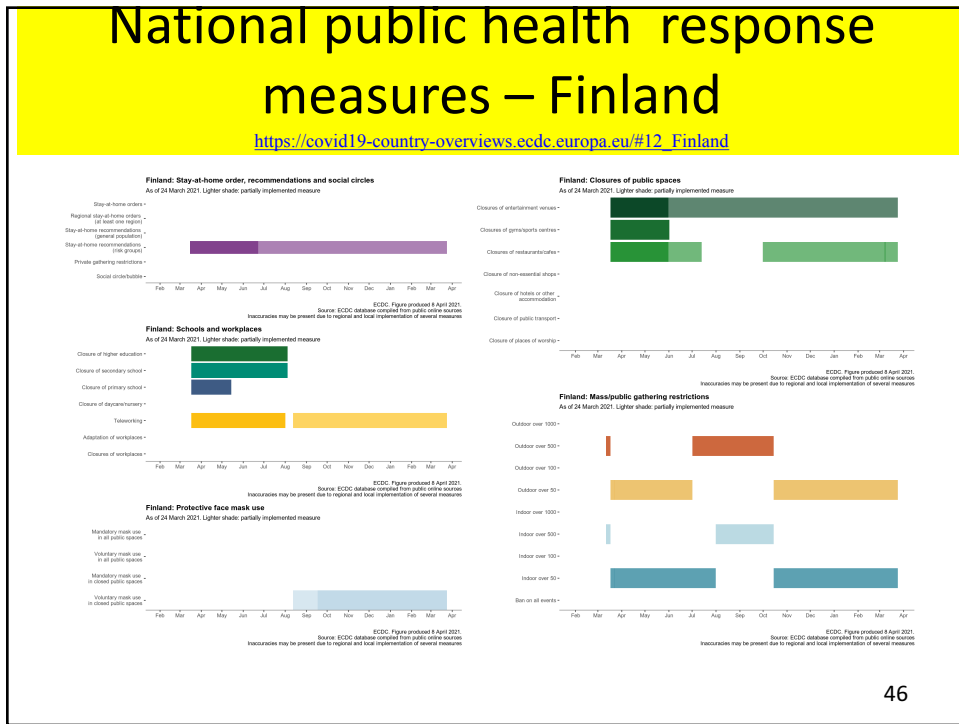
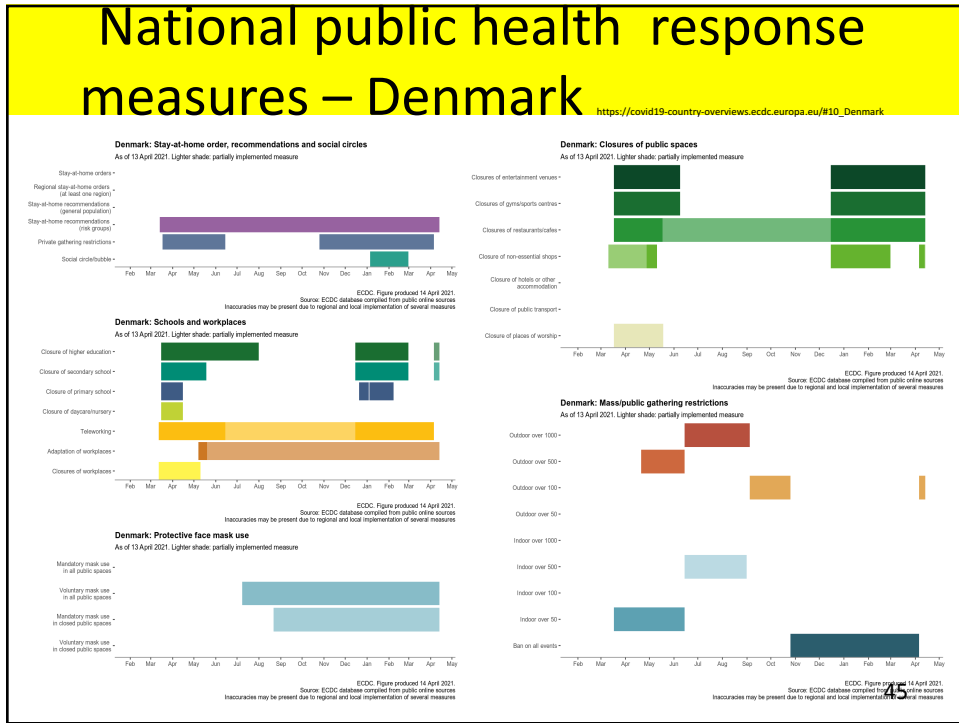


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We have a lot of different national measures in Norway 22.1.21

[Coronavirus | Covid-19]

National measures

Last updated 22 January 2021

These are national measures that apply to everyone. Check your local municipal website for local rules.

Most importantly of all:

- Keep your distance.
- Wash your hands.
- Stay at home if you are unwell.
- Limit the number of people that you meet.]

Social contact

Everyone should limit social contact. It is recommended that meetings with other people take place outdoors, and to avoid visits of more than five guests in addition to those who are already living together. If all of the guests are from the same household, more visitors are permitted, however, the number of visitors must allow for physical distancing. Children in day-care facilities and primary schools may receive visits from members of their own cohort.

Arriving in Norway

All persons arriving in Norway must take a Covid-19 test at the border. Persons arriving from abroad must also provide proof of a negative test taken no more than 72 hours prior to entering Norway. All persons arriving in Norway must register prior to crossing the border. All persons arriving in Norway must quarantine for a period of ten days. It is possible to end quarantine as of day seven if the person entering Norway tests negative for Covid-19 on two occasions following their arrival. Persons who do not have a permanent home (rented or owned) or suitable quarantine accommodation in Norway must remain in a quarantine hotel. Confirmation of the availability of suitable accommodation issued by an employer or the party placing the accommodation at the traveller's disposal must be presented upon arrival in Norway. (Some groups are exempt from these rules, including those with society-critical jobs and children under the age of 12)

Events

Most events should be postponed or cancelled. If an event must be held in spite of this recommendation: A maximum of ten individuals may attend private gatherings outside their own home, such as a birthday celebration. In rented premises, if the private gathering is taking place outdoors, the limit is 20 attendees. A maximum of ten people may attend indoor events, while the limit is 200 people for events at which all members of the audience are seated in fixed seating. Up to 50 individuals are permitted to attend funerals, even if the seating is not fixed. A maximum of 200 people may attend outdoor events, while the limit is 600 people for events at which all members of the audience are seated in fixed seating. Events should be postponed if they involve bringing together persons from multiple municipalities.

Schools and kindergartens

Kindergartens and schools are currently graded yellow. Municipalities may continue to rank lower and upper secondary schools as red until the end of this week if they need to prepare for a transition to yellow, or they make a local decision to remain at red due to the infection situation.

Higher education

All universities, university colleges and vocational schools should use digital instruction where this is possible. All planned events should be digital and large lectures and gatherings should be avoided. Students in areas without high rates of infection should have the option of in-person instruction at least once a week where it is possible to implement smaller groups and in accordance with infection control guidelines.

Shops

All shopping centres and shops must introduce limits on the number of customers permitted inside and control access to the premises in order to enable social distancing.

Restaurants, cafés, bars

Alcohol will only be served to persons also being served food. Licensed sales of alcohol will not be permitted after midnight, guests will not be admitted after 22.00. A distance of at least 1 metre must be maintained between guests not from the same household. All guests must be seated and alcohol will only be available by table service. Guest contact details must be recorded - subject to the guest's consent.

Travel

Avoid domestic and international travel unless essential. Travel to a place of study may be deemed necessary travel. Stays in cabins in Norway with members of your household remain permitted, but you must comply with local advice and applicable regulations. All guests must be seated and alcohol will only be available by table service. Guest contact details must be recorded - subject to the guest's consent.

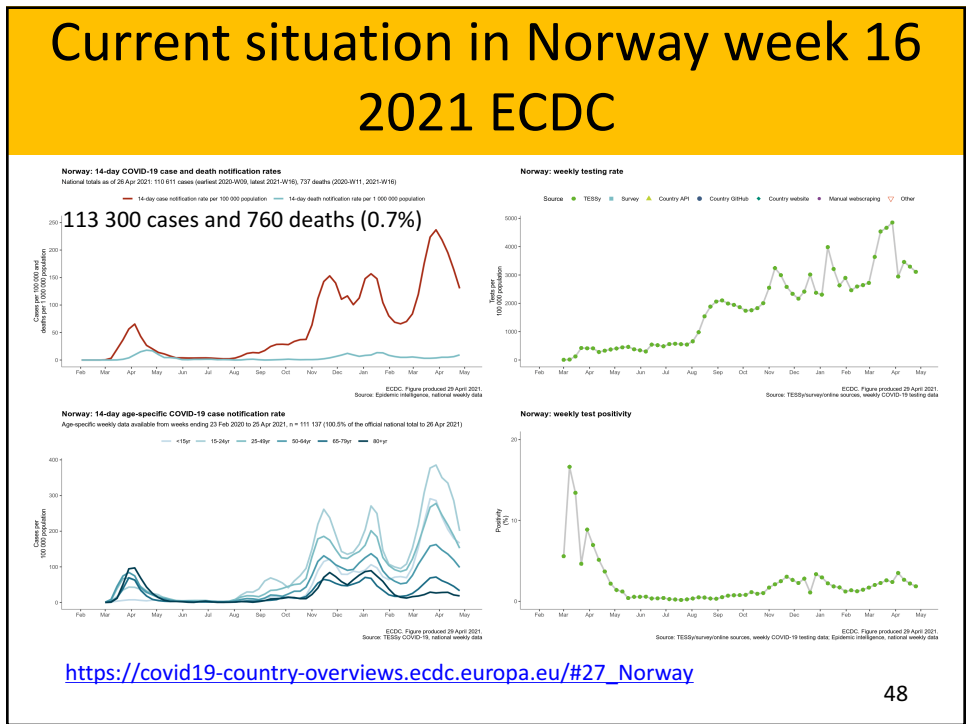
Sport and leisure activities

Children and young people under 20 years of age may train and participate in leisure activities as usual, and may be exempted from the recommendation of one-metre physical distancing when this is necessary for the activity in question. Children and young people may train both indoors and outdoors with their team or club, but matches, tournaments, etc. for children and young people should continue to be postponed. Adults are not recommended to engage in organised activities indoors. Adults may participate in exercise outdoors if it is possible to maintain sufficient physical distancing. Elite sports are recommended to postpone all fixtures for two weeks.

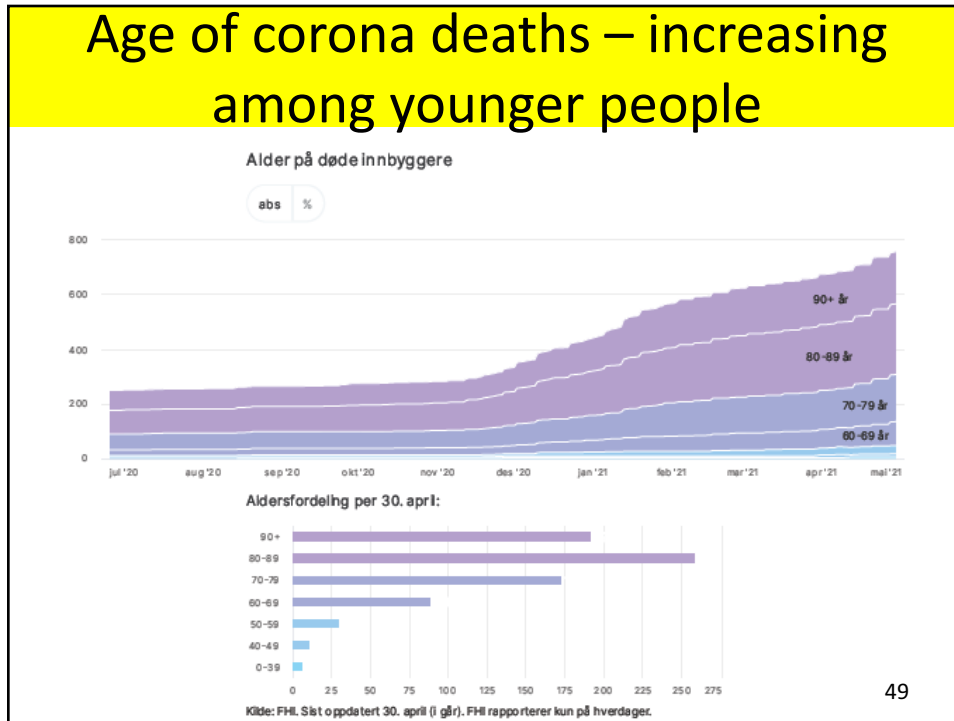
Workplaces

Working from home is advised for everybody who is able to do so.

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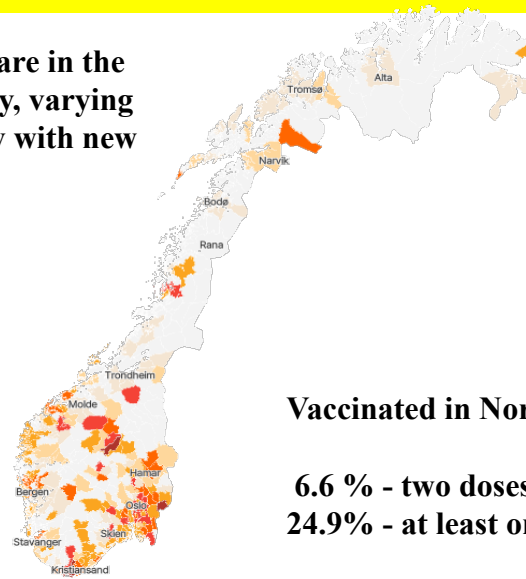


Age of corona deaths – increasing among younger people



Current situation Norway 2.5.21

Most hot spots are in the south of Norway, varying from day to day with new outbreaks



Vaccinated in Norway 2.5.21:

6.6 % - two doses
 24.9% - at least one dose

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Government's plan for gradual reopening: Together out of crisis-- in four stages from 16 April 2021



Stage 1:

- Up to 5 guests in private homes.
 - **The distance recommendation is changed back to 1 meter (from 2 m).**
 - Up to 100 people at indoor events, such as cultural and sporting events, conferences and services, all of which sit in permanently located places.
 - Up to 200 people at outdoor events, but 200 people times 3 cohorts if the audience sits in permanently disputed seats-----
- Still no use of masks! But now we are at least producing them selves!
 - Two meter distance is now one meter again!

<https://www.regjeringen.no/no/aktuelt/forskrift-om-gjenapning-av-barnehager-og-skoler/id2698003/>

<https://www.udir.no/kvalitet-og-kompetanse/sikkerhet-og-beredskap/informasjon-om-koronaviruset/smittevernveileder/infection-control-guidelines-for-upper-secondary-schools/>

<https://lovdata.no/static/lovtidend/ltavd1/2020/sf-20200327-0470.pdf>

[https://www.nrk.no/vestland/ettertrakta-masker-blir-laga-i-eigen-fabrikk-i-noreg-1.15464694,](https://www.nrk.no/vestland/ettertrakta-masker-blir-laga-i-eigen-fabrikk-i-noreg-1.15464694)

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But still not recommended use of masks in the education system or kindergarten

- It is not recommended to wear a face mask while learning or teaching in the classroom.
- Face masks can be worn outside the classrooms and in common areas where large numbers of people congregate.
- A requirement to use face masks should be based on a:
 - General recommendation to wear a face mask in the municipality and
 - Yellow or red level of measures at the schools, as well as a
 - Situation in which it is not possible to maintain the recommended distance (one meter) from others at school.
 - In such situations, face masks must be made available to both students and staff free of charge.
- <https://www.udir.no/kvalitet-og-kompetanse/sikkerhet-og-beredskap/informasjon-om-koronaviruset/smittevernveileder/infection-control-guidelines-for-upper-secondary-schools/>

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Norwegian authority's opinion on use of masks is in contrast to most others

Falk et L. MMWR 29.1.2021 Vol 70: 136 https://www.cdc.gov/mmwr/volumes/70/wr/mm7004e3.htm?s_cid=mm7004e3_w

K-12 schools can have in-person learning with limited in-school COVID-19 spread

17 K-12 schools in rural Wisconsin opened and implemented measures to limit spread:

- Used masks
- Established groups of 11-20 students
- Staff maintained 6 feet of distance, if possible
- Quarantined after exposures

Teachers reported more than 92% of students used masks

During 13 weeks of in-person learning

7 of 4,876 students and **0** of 654 staff are known to have gotten COVID-19 at school

No spread is known to have occurred to or from staff in school despite some times with high community spread*

* Weekly incidence of 34 to 1,189 per 100,000 persons in the community; 7-40% positive COVID-19 tests

CDC.GOV bit.ly/MMWR12621 53 WR

Some positive signals from the National Corona commission- April 2021

“In a challenging situation for the country, the authorities have changed quickly and made decisions has been crucial to how the crisis has developed.

After a year of pandemic, Norway are among countries in Europe that have the lowest mortality rate and are least affected economically.

The authorities could not have succeeded unless the population had followed up infection control measures.

In Norway, people have confidence in each other and in the authorities. It is one of the factors that made Norwegian society well equipped to address the crisis.”

<https://www.koronakommisjonen.no/files/2021/04/Kommisjonens-hovedbudskap.pdf>

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“The authorities knew that a pandemic was a most likely national crisis with most negative consequences”

<https://www.koronakommisjonen.no/files/2021/04/Kommisjonens-hovedbudskap.pdf>

- The Government is responsible for planning and dimensioning the country's preparedness.
- Still,- today- there are no scenarios, plans, or completed exercises for these measures.
- According to the national pandemic plan, large parts of the population would be infected without the authorities adopting restrictive measures!
- The government had been reminded, several times over many years, of risk of shortage of medical equipment during a pandemic.
- <https://www.koronakommisjonen.no/files/2021/04/Kommisjonens-hovedbudskap.pdf>

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The best economy was to stop the pandemic as early as possible

<https://www.koronakommisjonen.no/files/2021/04/Kommisjonens-hovedbudskap.pdf>

- Winners so far are: New Zealand, China, Taiwan, Viet Nam, South Korea and other countries in South-East Asia –and Australia
- Few deaths – the pandemic was stopped in early stage and this resulted in relatively small impact on economy
- Norway: BNP was reduced 2.5% in 2020
 - Norway has – so far- lost little on strict infection control measures and large gains in the event of fewer deaths.

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Summary 1

Denial of airborne transmission

<https://www.sciencedirect.com/science/article/pii/S0195670121000074>

- **The denial of airborne transmission** outside “**one meter**” from an infected person was a deadly decision and dangerous signal to the World from WHO. This decision is still not changed.
- The Norwegian authorities still follow WHO's definition of **no airborne transmission**.
- The Norwegian NIPH's distrust of the use of masks and distance (2 meters or more) to reduce airborne transmission is reflected in the lack of advices from the NIPH. This has probably reduced the effect of all other infection control measures, in our country.
- The Norwegian Corona commission did not comment on virus transmission and infection control measures (April 2021).

Lesson: A successful and precautionary measure concerning pandemics involving infections in airways - is to start with the highest level of protection that includes to stop airborne transmission.

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Spread via air is true!



Cough control !



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Summary-2

- When the Corona pandemic came to Norway in February 2020, the Government was unprepared. A tawdry and laid-back "flu" attitude allowed the infection unhindered into the country.
- But unlike the Norwegian Institute of Public Health (FHI), which wanted slow down and herd immunity, the government quickly cut through and went for a stop of the pandemic and lockdown society on March 12.
- A brilliant, good infection control measure that the population willingly implemented on a voluntary basis and - as far as we know - had a good effect. Later, varied types of shutdowns have been used.
- But national preparedness was completely broken after many years of savings from health enterprise reforms. The emergency storage facility was empty and there was a lack of infection control equipment, isolates, test capacity, training, infection control expertise and health personnel.

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Summary - 3

- WHO placed responsibility on key governments in all countries, while the Norwegian Government decentralized this into an overworked primary health service without specialist expertise or equipment.
- The advice from the WHO: “the same infection control measures applies at all levels of the health service with regard to suspected or proven Corona infection” was not followed.
- The primary health service did not have access to adequate infection control equipment and nursing home patients were not properly isolated.
- Many elderly became infected and died in nursing homes and were deprioritized at hospitals.
- A new class divide was demonstrated; older towards the younger ones.

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Summary 4

Why is the Government not dealing with real infection control measures that can stop the epidemic?

- Rapid reopening in the summer of 2020 was characterized by weakened infection control measures and completely without border control.
- The infection blossomed throughout the autumn, and Christmas started with a large spread of infection. A third wave came in March 2021.
- Still new municipalities are getting infected. The borders are still passed nearly unhindered and quarantine hotels may be “games for the gallery”.
- Mask use and distance is not mandatory in case of high infection pressure and airborne infection, although it reduces the risk of infection by 60-80%.
- Children and young people are going to school and kindergarten even in the reddest areas with a high transmission pressure and without using masks.
- The Government has not used “infection control tools” as they were meant to, but in a way that could increase the transmission.
- The problem was dramatically increased by all asymptomatic carriers and super-spreaders!
- Still, the same situation, but we are looking forward to the effect of vaccination!

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Why is it still going relatively well in Norway ?

- **Borders:** Norway is located at the north and outer edge of Europe -with natural borders, scattered settlements in separate homes between many mountains and deep fjords – an effective infection control per se.
- **Space-distance, air and light:** We have plenty
- **Economy** is good with packaged solutions during lockdown etc.
- **Well educated people**, also concerning infection control.
- **Political stability and openness.**
- **Confidence** in most politicians and public health care that did a brilliant job!
- **And** we have started vaccination- and hope the pandemic is to be eliminated!



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Thank you for listening!
 Spring -greetings from Norway!



www.webbertraining.com/schedule1.php	
May 18, 2021	<p><i>(FREE European Teleclass ... Denver Russell Memorial Teleclass Lecture)</i> <u>HYGIENE BEHAVIOUR IN OUR HOMES AND EVERYDAY LIVES TO MEET 21ST CENTURY NEEDS</u> Speaker: Prof. Sally Bloomfield, International Scientific Forum on Home Hygiene, UK</p>
May 20, 2021	<p><u>COMPLACENCY ABOUT DISEASES, ANXIETY ABOUT VACCINES: THE MENINGITIS PERSPECTIVE</u> Speaker: Elizabeth Rodgers, Meningitis Research Foundation, UK</p>
May 27, 2021	<p><u>EMERGING PATHOGENS - HAVE WE LEARNED ANY LESSONS?</u> Speaker: Prof. Rodney Rohde, Texas State University</p>
June 8, 2021	<p><i>(European Teleclass)</i> <u>ASSESSING PERSONAL PROTECTION EQUIPMENT</u> Speaker: Linda Kilsdonk-Bode, Ampeha Hospital, The Netherlands</p>
June 16, 2021	<p><i>(FREE South Pacific Teleclass)</i> <u>FROM POLICY TO PRACTICE – IMPLEMENTING GOVERNMENT DIRECTED POLICY & IMPLICATIONS FOR INFECTION CONTROL PRACTICE</u> Speaker: Sally Havers, Queensland University of Technology, Australia</p>
June 24, 2021	<p><u>CONTINUOUS ACTIVE ANTI-VIRAL COATINGS</u> Speaker: Prof. Charles Gerba, University of Arizona</p>

Hosted by Nicole Kenny nicole@webbertraining.com
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