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evidence for decisions

Lessons from Swedish Policy review

Sweden, crazy or rational?

Dr Mike Ryan from the WHO. Credit: Salvatore Di Nolfi/AP

WHO says Sweden's Corona strategy could be "a future model" post lockdowns

The New York Times

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Sweden Tries Out a New Status: Pariah State

Fearing the country's lax approach to combating the coronavirus, Sweden's Scandinavian neighbors have all closed their borders to Swedes.

High lights from policy review

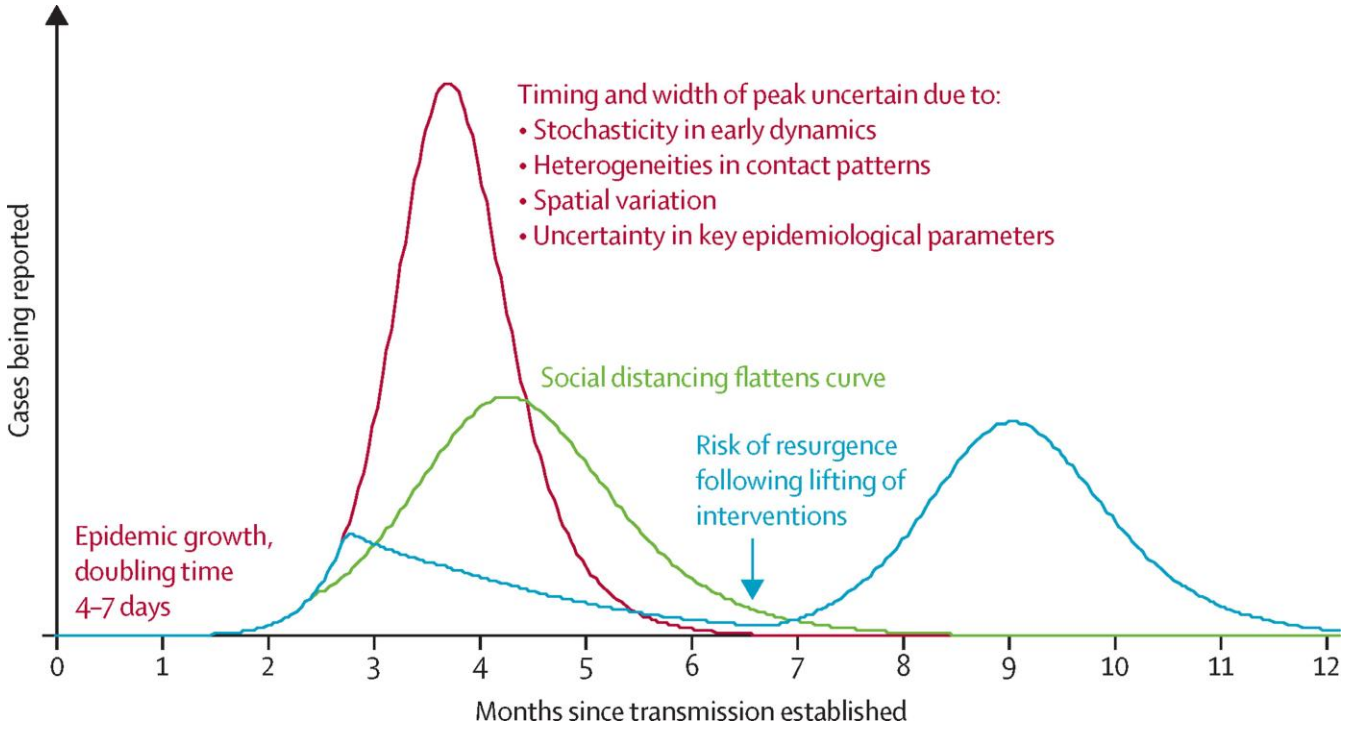
- Swedish strategy is evidence-based and in close partnership between the government and the society.
- No forced lockdown, but ‘soft measures’ built on trust with responsibility of the individual.
- The Swedish way has also been noticed by the WHO and proposed as a future model.
- Implemented measures have successfully flattened the curve
- Limited ability to implement protective measures in some elderly homes.

A Kavaliunas, P Ocaya, J Mumper, I Lindfeldt, Kyhlstedt M
Swedish Policy Analysis for Covid-19, under review

Agenda

1	**Framing the question**
2	Basics of infection control
3	Managing the perception and response
4	Questions

Different measures will have different impact



Anderson, Roy M., Hans Heesterbeek, Don Klinkenberg, and T. Déirdre Hollingsworth. “How Will Country-Based Mitigation Measures Influence the Course of the COVID-19 Epidemic?” *The Lancet* 395, no. 10228 (March 21, 2020): 931–34. https://doi.org/10.1016/S0140-6736(20)30567-5.

Sweden VS Norway

	Sweden	Norway
Population	10,2 million	5,3 million
COVID-19 mortality	5310	249
Relative mortality /100 000	52,5	4,7

Has Sweden been irresponsible not going to lockdown?

Data from 20-06-30

1, https://experience.arcgis.com/experience/09f821667ce64bf7be6f9f87457ed9aa

2, https://www.fhi.no/sv/smittsomme-sykdommer/corona/dags--og-ukerapporter/dags--og-ukerapporter-om-koronavirus/

What is the prediction in Norway about the 2nd wave?

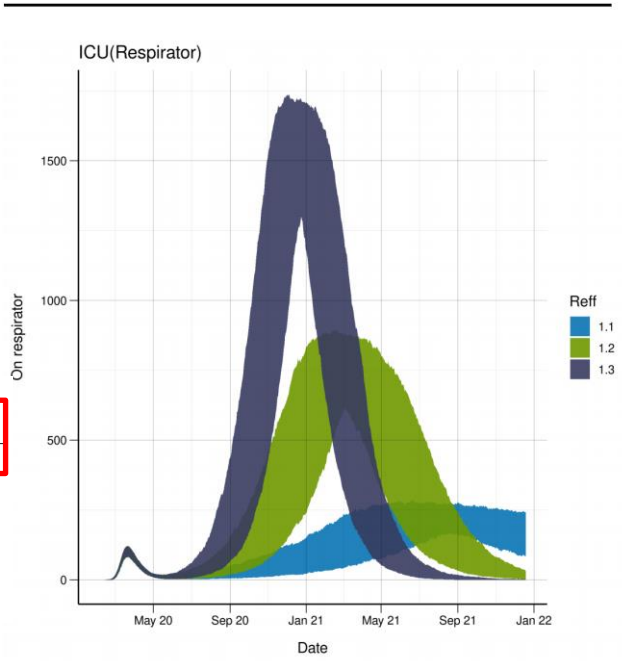
2 Estimated cumulative number of infected individuals

Table 2: Estimated cumulative number of infections, 2020-05-19

Region	Total	Symptomatic	No. confirmed	Fraction reported	Min. fraction
Norway	36302 (31993; 40125)	22443 (19694; 24799)	8257	23%	21%
Agder	2296 (1680; 3156)	1419 (1041; 1940)	338	15%	11%
Innlandet	1855 (1292; 2497)	1134 (782; 1524)	480	26%	19%
Møre og Romsdal	724 (469; 1054)	452 (288; 660)	133	18%	13%
Nordland	591 (318; 894)	366 (196; 565)	117	20%	13%
Oslo	8387 (7009; 9735)	5151 (4310; 5999)	2572	31%	26%
Rogaland	4845 (3871; 5945)	2999 (2386; 3645)	438	9%	7%
Troms og Finnmark	1110 (559; 2097)	678 (340; 1275)	252	23%	12%
Trøndelag	1630 (1106; 2294)	1009 (701; 1392)	530	33%	23%
Vestfold og Telemark	2880 (2187; 3976)	1772 (1329; 2402)	282	10%	7%
Vestland	3894 (2990; 5000)	2397 (1826; 3046)	880	23%	18%
Viken	8090 (6839; 9461)	5066 (4242; 5932)	2235	28%	24%

Fraction reported=Number confirmed/number predicted; Minimal fraction reported=number confirmed/upper CI

	Reff=1.1	**Reff=1.2**	**Reff=1.3**
Total infected	907.000(804.000 - 951.000)	1.670.000(1.650.000 - 1.680.000)	2.270.000(2.260.000 - 2.280.000)
Total Hospital	36.200(32.000 - 37.800)	65.400(64.600 - 66.200)	88.500(87.900 - 89.200)
Total on respirator	5.480(4.870 - 5.780)	9.900(9.680 - 10.100)	13.400(13.200 - 13.600)
Ward[1]	584(506 - 643)	1.890(1.730 - 2.000)	3.740(3.480 - 3.910)
Hospital[2]	836(736 - 926)	2.730(2.500 - 2.880)	5.380(5.020 - 5.620)
Respirator at Peak	274(239 - 312)	863(794 - 925)	1.690(1.570 - 1.780)



Is it possible to evaluate the effect of the lock-down?

https://www.fhi.no/contentassets/e6b5660fc35740c8bb2a32bfe0cc45d1/vedlegg/nasjonale-rapporter/2020.05.20-corona-report.pdf

Comparing 3 largest regions representing 53% of population

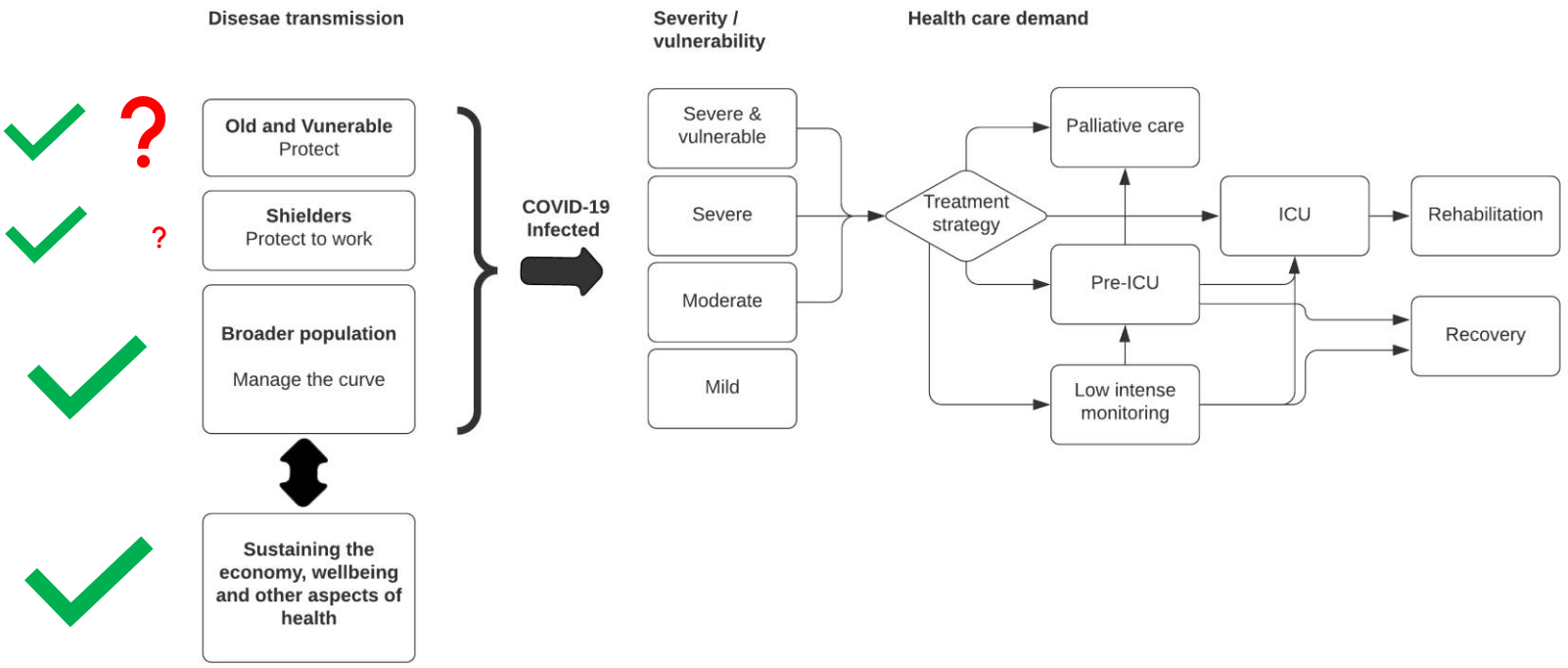
	Skåne	Stockholm	Västra Götaland
Population [1]	1 380 983	2 383 269	1 728 573
Absolute diagnosed [2]	1 739	12 149	5 898
Diagnosed / 100 000	125,9	509,8	341,2
Absolute mortality [2]	178	2 055	550
Mortality / 100 000	12,9	86,2	31,8
Absolute number of patients in intensive care [2]	90	790	330
Patients in intensive care / 100 000	6,5	33,1	19,1
COVID-19 Community Mobility Report [3]			
• Retail creation	+3 %	-11%	0%
• Grocery & pharma	+ 5%	+1%	+7%
• Parks	+87%	+67%	+115%
• Transit stations	-31%	-36%	-25%
• Workplaces	-23%	-36%	-25%
• Residential	+7%	+11%	+7%

6,7 x

2,7 x

With same policy for non lock-down, very different outcomes, why?

Covid-19 policy discussion framework



Adapated from. Assessment is from speaker.
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Protecting the old and vulnerable

- What is the important questions in this setting?
  - Preventing that the health care workers get sick?
  - Preventing transmission from the person they met before and after?

- What impact does the protective equipment have?
  - Does it provide false safety?
  - How does it impact the hygiene routines?
  - Does it increase the risk?

- Conclusion from literature review: https://www.fhi.no/en/publ/2020/Should-individ symptoms-wear-facemasks-to-reduce-the-spre

Conclusion

In the current epidemiological situation in Norway, wearing facemasks to reduce the spread of COVID-19 is not recommended for individuals in the community without respiratory symptoms who are not in near contact with people who are known to be infected. If the epidemiological situation worsens substantially in a geographical area, the use of facemasks as a precautionary measure should be reconsidered. Measures to reduce risks during necessary public transport and during mass events, including wearing facemasks, should be explored further.

If use of facemasks by individuals without respiratory symptoms in the community is recommended in specific circumstances, such as public transport or mass events, medical masks or quality controlled non-medical masks with a documented filtration effect should be used. National priorities for the use of personal protective equipment may apply, given existing shortages. If any such recommendation is made, the community should be given training to ensure correct use and the risks should be explained, especially the risks of a false sense of security and contamination of masks. The training should be tailored to the needs of different groups, including people with different levels of fluency in Norwegian and different socio-economic circumstances.

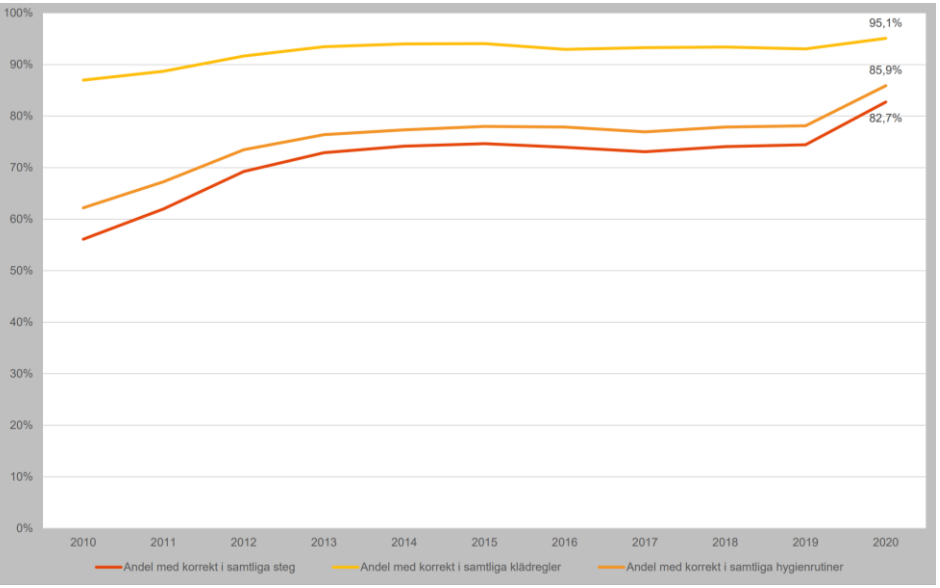
Audit summary from 1045 elderly care units, factors influencing the COVID-19 outcomes

Positive impact [1]	Negative impact 1
• Ensuring adherence to basic hygiene routines including demonstrations, web-training, written and verbal instructions. • Clear leadership • Active planning of personnel • Use of Personal Protective Equipment • Dedicated personnel for COVID-patients or other means for cohort care. • Separation or isolation of infected • Access to hygiene supplies and PPE • Individual risk analysis for specific patients	• The inability to handle personal concerns of personnel • Difficulty managing the flood of information from all official agencies to personnel. • The challenge to develop functional procedures for hygiene and protection • The challenge of obtaining an acceptable and sustainable planning of resources.

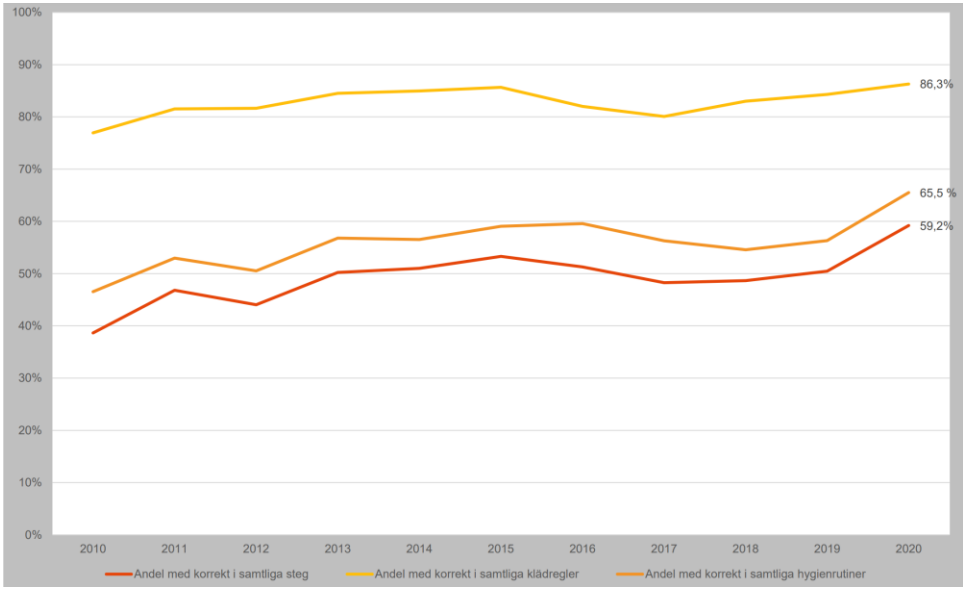
- **About 10% of elderly homes had rather severe deficiencies, which are likely contributor to excess mortality.**
- **Only use PPE if there is good basic routines in place.**

Adherence to basic hygiene and clothing routines

Hospital and GP care



Elderly care



- **Full adherence to basic hygiene and clothing routines**
  - **Hospital 82,7 %**
  - **Elderly care 59,2% => How many died from this?**

- **Current level is the result of strategic attempt to improve over a long period of time.**

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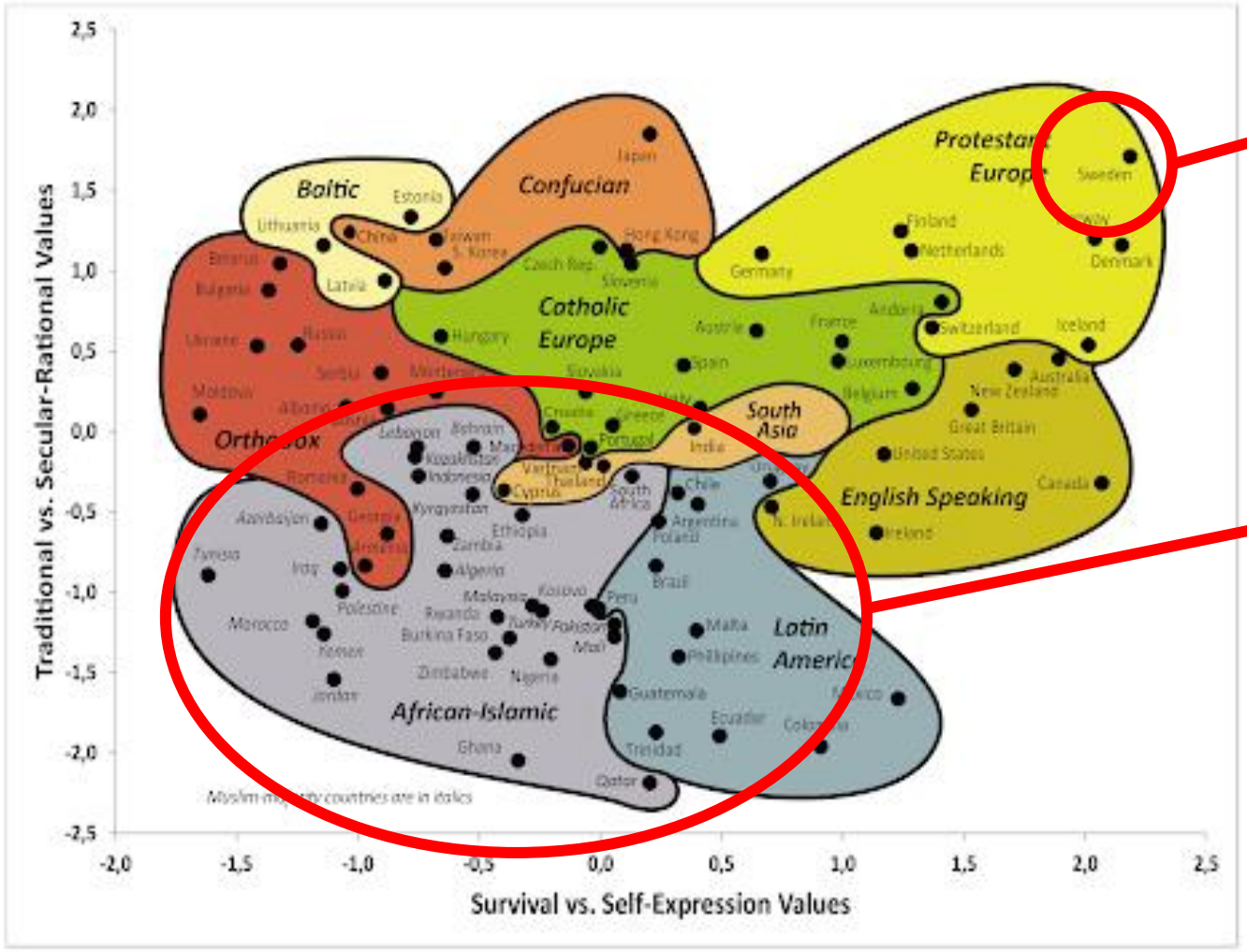
The core of the Swedish social distancing effort

- **Stay home even if you only feel a little bit sick.**
- **70 years old and older – avoid close contacts**.
- Wash hands often with soap and water.
- Avoid social gatherings with large groups.
- Maintain distance from others both in & outdoors.
- Refrain from unnecessary travel.

It has been rather effective

The twofold issue of cultural implications



‘Swedish way’ worked for Swedes

‘Swedish way’ failed to reach migrant communities and created excess mortality

Summary of recommendation for other countries

- Be rational and scientific in the approach to assess which measures to implement.
- Manage the perception.
- Focus on the basics in hygiene routine and clothing to protect the old and vulnerable.

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What about the children and schools?

- In the consideration of the children:
  - Is the objective to prevent:
    - Spread of infection
      OR
    - The devas…e health care capacity
  - Is the first optio…
  - The conclusion…ce of spreading the virus and that the societal cor…oes not justify closing the school.
    - High scho…since it was feasible for this

ACTA PÆDIATRICA
NURTURING THE CHILD

REVIEW ARTICLE | Free Access

Children are unlikely to be the main drivers of the COVID-19 pandemic – A systematic review

Jonas F. Ludvigsson

Helsinki: Re-opening schools did not lead to jump in coronavirus infections

FINLAND / 05 JUNE 2020

…9 become sick?

…typically display symptoms such as fever and …gly suggest that children with COVID-19 …s, but evidence regarding children in different age groups is more uncertain. Critical illness and deaths are rarely observed among children.

Can children transmit the virus, and if so, to whom?

Current evidence suggest that children can transmit SARS-CoV-2, but there is no evidence that children are key drivers of transmission. Evidence is sparse, and it is too early to conclude firmly about the role children play in transmission of SARS-CoV-2.

What are the measurable effects of school closures?

We have not identified directly applicable data, but limited evidence based on experiences from the SARS outbreak in Beijing in 2003 suggest that school closure had limited impact on transmission control.