

# The impact of COVID-19 on global supply chains and the Critical Infrastructures:

## The Health Care System of Sweden

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**Elvira Kaneberg**, Assistant Professor, Business Administration

Jonkoping International Business School (JIBS), Sweden

**Leif-Magnus Jensen**, Associate Professor, Logistics

School of Engineering (JTH) Jonkoping University, Sweden

# Managing healthcare response through strategic networks

- Much attention has been paid to the strategies that countries pick in response to the Covid-19 virus, especially in terms of strategies for the healthcare system
- Sweden has received substantial attention for its response (cf. next slide).
- ***Here, the focus is on the critical infrastructures and the system in relation to health***
- We show some of the main features of the Swedish system, and suggest that managing parts of the complex network through the idea of nets is one way to go

# Swedish Government official COVID-19 policy

The Swedish Gov:t has presented a range of different measures to limit the spread of the COVID-19 virus and to mitigate the economic impact of it.

The [Government's policy](#) and decisions aim to:

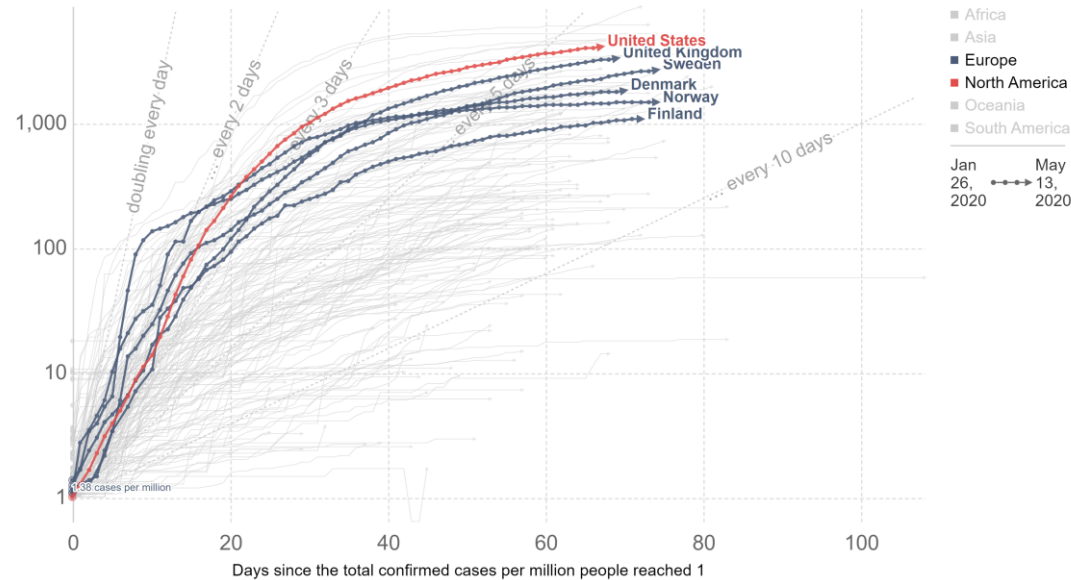
- Limit the spread of infection in the country
- Ensure health care resources are available
- Limit the impact on critical services
- Alleviate the impact on people and companies
- Ease concern, for example by providing information
- Ensure that the right measures are taken at the right time.

# Development and comparison, Sweden

Total confirmed COVID-19 cases per million: how rapidly are they increasing?

The number of confirmed cases of COVID-19 is lower than the number of total cases. The main reason for this is limited testing.

Our World in Data

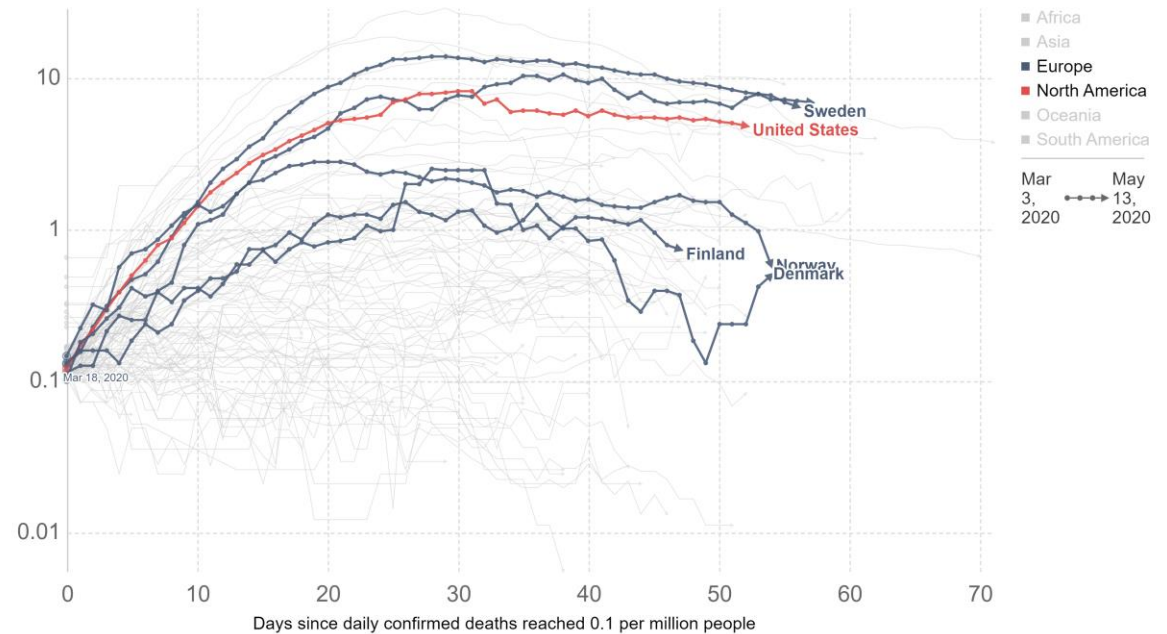


Source: European CDC – Situation Update Worldwide – Last updated 13th May, 11:15 (London time) OurWorldInData.org/coronavirus • CC BY

Daily confirmed COVID-19 deaths per million: are we bending the curve?

Shown is the 7-day rolling average of daily confirmed COVID-19 deaths per million people. Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.

Our World in Data



Source: European CDC – Situation Update Worldwide – Last updated 13th May, 11:15 (London time) OurWorldInData.org/coronavirus • CC BY

Development of cases per million in Sweden is not particularly high but the relative number of deaths is in the higher band  
(Note that the graphs show relative developments until the present date only)

Extracted from: <https://ourworldindata.org>  
May 14th, 2020.

# The Swedish healthcare system

- The Swedish health care system involves three levels of government:
  - Overall policies are set at the national level;
  - 21 regions are responsible for financing and delivering health services;
  - 290 municipalities are responsible for the care of older people and disabled people.
- The private governance in parts of the healthcare sector in Sweden has an ambivalent impact on the national emergency preparedness efficiency, it also connects to worldwide supply chains systems for the acquisition of medical supplies.

# Shortages impacting the healthcare capacity of Sweden at different levels

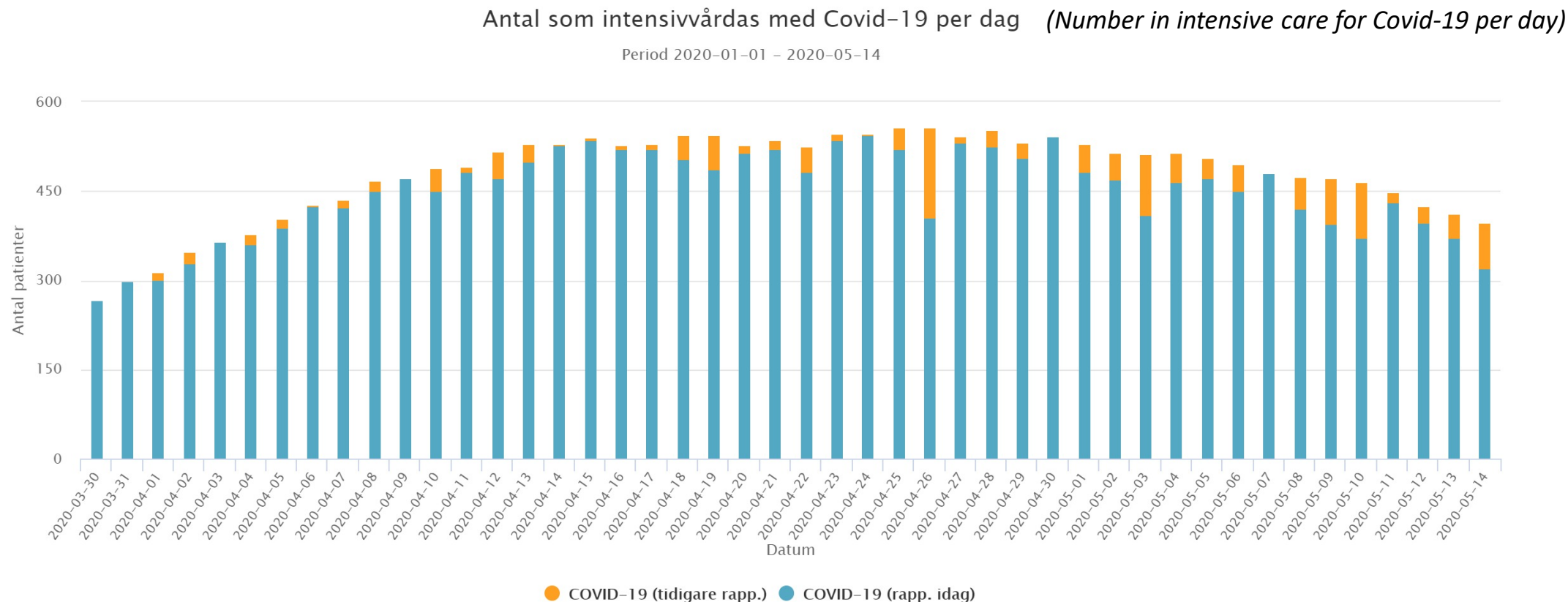
- **Global supply chains**
  - Panic buying is one of the top headlines of the COVID-19 (coronavirus) pandemic. This international phenomenon threatens health systems' ability to prevent and treat the coronavirus with shortages of hand sanitizers, masks, and pain relievers.
  - e.g., panic buying of potential treatments may also deplete medicines for patients with chronic diseases – chloroquine and hydroxychloroquine remain unproven for COVID-19 but are vital medicines for autoimmune conditions such as lupus.
- **National government**
  - Covid-19 constitute grounds for invoking force majeure applied to unpredictable events that are beyond parties' control and which make it impossible for a contracting party to fulfill its part of the agreement.
  - There are no explicit legal provisions on force majeure in Sweden and this therefore applies on a case by case basis creating additional complexity and potentially a lack of coordination.
- **Regional authorities**
  - The Swedish Association of Local Authorities and Regions (SALAR) is politically run and represents Sweden's municipalities and regions. It is the largest employer organization in Sweden.
  - The Swedish socialstyrelsen (Regional Social Board) has received a stronger mandate to coordinate joint purchasing for the regions but it is not yet clear how this will play out in practice
- **Municipal activities**
  - The Framework Agreement Shortcomings for municipal healthcare and care activities includes goods that are in short supply during the corona pandemic. Now all municipalities that want to use the framework agreement must make some preparations.
  - The ongoing pandemic is having a major impact on the Swedish economy. The focus of the crisis packages already presented has been to get measures in place quickly. Today sees the presentation of improvements to the system for short-term layoffs so that it will be even more impactful.

<https://www.kliniskastudier.se/english/sweden-research-country/swedish-healthcare-system.html>

<https://blogs.worldbank.org/health/covid-19-coronavirus-panic-buying-and-its-impact-global-health-supply-chains>

<https://www.government.se/government-policy/the-governments-work-in-response-to-the-virus-responsible-for-covid-19/>

# Pressure on intensive care remains high



Detta är en originalrapport från Svenska Intensivvårdsregistret

Total intensive care capacity in 2019 was 526 but this has been significantly increased in connection with Covid-19. (svt.se, 2 April, 2020).

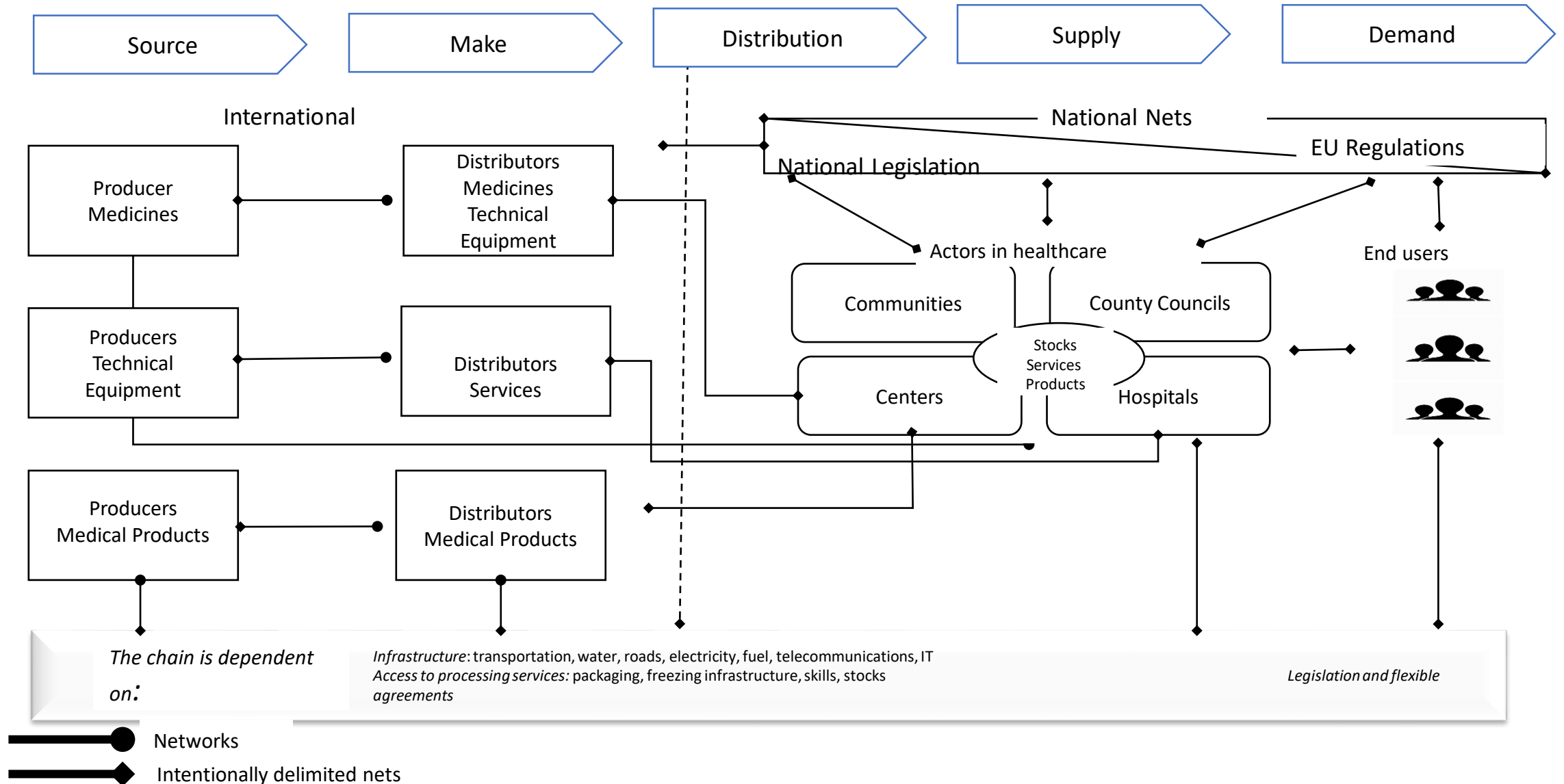
Source: Swedish Intensive Care registry. May 14th, 2020

# The Swedish health care challenges in general

- Features that contribute to access to healthcare in Sweden include;
  - a comprehensive variety of publicly financed health services for elders,
  - free access to all covered health services costs for children and adolescents,
  - support by high levels of public spending on health.
- Levels of public spending on health continue to be high in Sweden—above 80% of current health spending is public – have been stable for decades, while the out-of-pocket payment share is close to the EU-average of 18% and has also been stable, at around 15% of current spending on health (WHO, 2019).



# Overview of the healthcare system in Sweden



# Propositions

- The previous figure shows what can be an extensive interconnected network of actors, both domestic and international (Kaneberg, 2018)
- The management of this network in both stable circumstances and during a response is a great challenge due to complexity (Gattorna, 2015).
- We suggest that the challenge can be met by redefining the network as a set of smaller nets “nets have motivated organizations to jointly agree on goals and roles to achieve benefits in commercial transactions” (Möller & Rajala, 2007, p.895).
- Crucially, success depends on defining and managing adapted nets each with more limited tasks
- There is need to reach for change and collaboration in all municipalities and regions, and the Employment Service representatives, there should be an agreement with common objectives and a description of how the parties should work together.

# Conclusions

- In a previous study of the Swedish system, Kaneberg (2018) found that the strategic networks are relevant for preparedness and response efficiency and can be delimited and adapted to Swedish demands.
- The nets require private-public collaboration as a strategic choice to achieve response efficiency
- Public and private actors must collaborate in supply chain networks
- These networks need to be adapted in more limited and focused nets to meet the demand uncertainty during the response

# References

- [Kaneberg](#), E. (2018) "Managing commercial actors in strategic networks in emergency preparedness: A study of multiple networks from Sweden", Journal of Humanitarian Logistics and Supply Chain Management,
- Möller, K., Rajala, A. and Svahn, S. (2005), "Strategic business nets-their type and management" Journal of Business Research, Vol. 58 No. 9, pp. 1274-1284
- Gattorna, J. (2015), Dynamic Supply Chains, Pearson Education Limited, London.
- WHO (2019). World Health Organization Regional Office for Europe - [euwhocontact@who.int](mailto:euwhocontact@who.int)