The Dutch Approach to COVID-19:
How is it Distinctive?

By Caroline van Dullemen and Jeanne de Bruijn

"*A grim milestone: Number of COVID-19 deaths surpasses 10,000 in The Netherlands*" the NL Times published on December 12, 2020.[1] These figures were reported by the National Institute for Public Health and the Environment (RIVM). Two days earlier, Dr. Anthony Fauci, the U.S. government's chief COVID-19 advisor, said in a public lecture, "*look with envy*" at the Netherlands because of its "*unambiguous approach to the pandemic.*"

Since the first reported death from COVID-19 on March 6, 2020, the Netherlands mitigated the effects of the virus by various forms of what it coined "the intelligent lockdown." It was presented as a unique Dutch COVID-19 policy, distinctive from neighboring countries. But was it? And if so, was it successful during the second pandemic wave?

The Netherlands has 17 million inhabitants and is one of the most densely populated countries in the world (411 p/km$^{2)}$. With 170 million animals, the country has a high animal density as well (~4000 a/km^2), leading to areas with bad air quality[2] and relatively high risk of zoonosis,[3] important factors in the COVID-19 pandemic.[4] The basic goal of the Dutch COVID-19 pandemic policy was to protect vulnerable people and to strike a balance between the health infrastructure—not to overburden hospitals and healthcare personnel—and to support the economy, small and larger businesses, and protect employment. As in neighboring countries, the intelligent propositions included the emphasis on 1.5 meter social distancing, hand washing, and restricting mobility by closing universities, restaurants, sport centers, cinemas, museums, the whole cultural sector, restricting shopping, and emphasizing telework from home. Schools remained open, but universities had to close.

The so-called intelligent lockdown strongly stressed by Minister President (MP) Mark Rutte, meant that Dutch citizens were taken seriously as thinking creatures who should and could behave in a responsible way. The MP was assisted by an Outbreak Management Team (OMT), a team of experts with experience in the management of infectious diseases. This team was closely related to and depended on the input of the RIVM. Rather soon, the initial policies were overruled by a powerful group of medical specialists who influenced the political arena with the call for stronger measures such as closing schools and day-care centers and wearing

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face masks. Although there was no scientific evidence for it—on the contrary—the majority in Parliament wanted to copy the surrounding countries by closing the schools.

The intelligent lockdown began with a broad triangled focus: health, economy, and the protection of vulnerable people. Nevertheless, it soon narrowed down to an almost exclusive focus on sufficient intensive care capacity. Part of the economy came to a standstill, but firms were immediately compensated by a generous tax-funded financial assistance policy. This made it possible for most businesses to survive and pay their tenured personnel. This continued during the second lockdown, in autumn 2020. On the other hand, many part-time "flex workers" in the Dutch economy became unemployed; these were mostly vulnerable young people, almost all left without compensation. Also, government provisions for the cultural sector were too meager for most groups to survive.

The first lockdown started on March 23 and ended June 1, 2020. Rapidly rising COVID-19 infection rates led to the second, more severe lockdown beginning in December 2020. The main focus of the second lockdown was on strictly limiting contact between people.

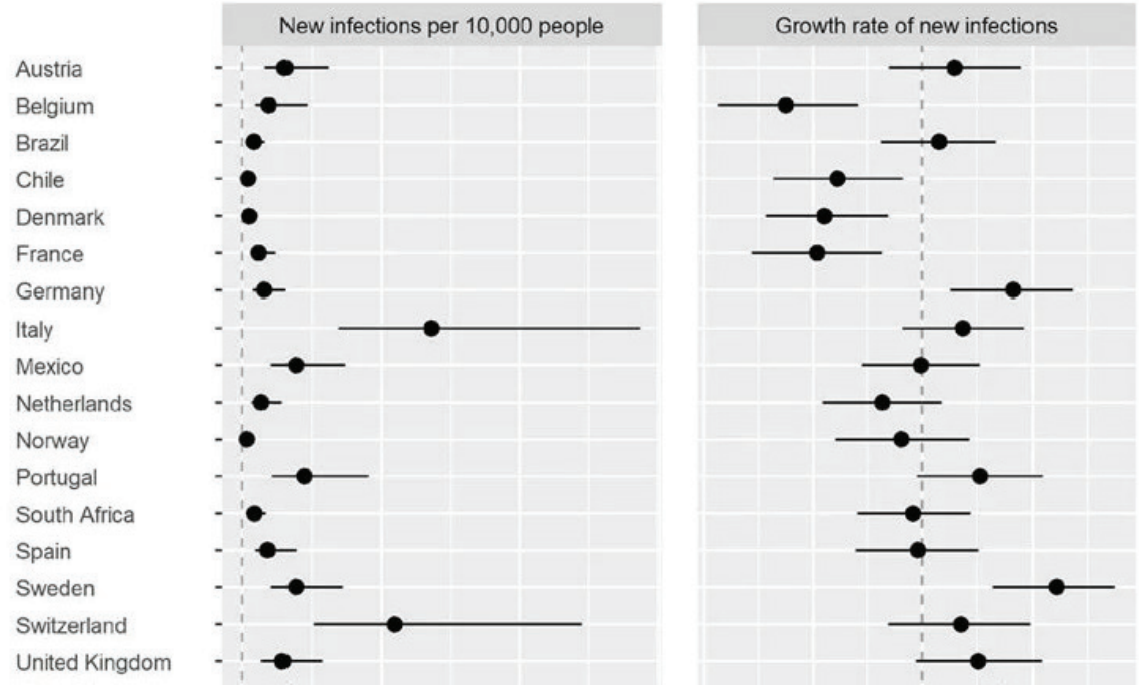
Compared to most neighboring countries, the Dutch intelligent lockdown during the first wave seemed relatively mild. Germany, Belgium, the U.K., Denmark, and the southern countries of France, Spain, and Italy were more severe. During the summer months the daily numbers of new infections declined. The Dutch approach seemed relatively successful with respect to all three sides of the triangle. With respect to the protection of vulnerable people, from the beginning of April 2020 onwards, the numbers of diseased showed a steep decline. With respect to healthcare capacity, intensive care (IC) beds were nearly sufficient, and demand returned to a normal level. With respect to the economy, the major financial injections kept unemployment low (the high flexible work unemployment stayed hidden), and the stock market remained remarkably robust. The economic effects of the virus seemed to have hit the Dutch economy much less hard than in the surrounding countries. Nevertheless, the Dutch Central Bank expected real GDP per capita to fall 7 percent in one fell swoop in 2020, to its 2015 level.

The Netherlands pandemic policies clearly stand out from the southern European countries, but less so from the northern countries. It could probably be positioned between Sweden and Germany. This article focusses on the main question: *How did the Dutch COVID-19 policy balance between protection of vulnerable people, avoiding an overburdening of healthcare capacity, and preventing an economic crisis, and what are the effects on existing social-economic inequalities?*

Effectiveness of COVID-19 Policies: Comparative Studies

During this pandemic all countries have tried to find the right specific combination of science-based health measures, taking economic interests into account and finding ways of communication to create the most effective social behavior as well as parliamentary commitment. Available studies comparing various COVID-19 policies examine mostly the first wave. The paper *Which COVID policies are most effective?* is one of the first estimations of the impact of the individual policies taken in 40 countries, regions, and U.S. states.[5] In each of these jurisdictions, as the authors called them, five areas are taken into account: the range of measures implemented; the level of implementation of containment measures; the extent of compliance; the number of COVID-19 cases, deaths, and excess deaths; and the comparative performance of the measures in other regions.

Fig. 1 Weekly rate of new infections and their growth by jurisdiction as of November 22, 2020.



Dots = median estimates; Lines = 95 percent intervals [5]

The main outcome of this study is that so far none of these policy packages were sufficient and "additional measures were needed to stop the pandemic's spread." These additional actions include stay at home orders, workplace closures for all except essential workers, and targeted school closures, which are all likely to have a significant, negative effect on social well-being and economic activity. An earlier study by Linka, Peirlinck and Kuhl [6] on the reproduction number of COVID-19 found a strong correlation with the amount of passenger air travel. Their new dynamic SEIR model[7] provides the flexibility to simulate various outbreak control and exit strategies and identify safe solutions in the benefit of global health. Their calculations show that Dutch policy was less effective in the early containment of the virus than some other European countries (fig. 2).

Effect of Dutch Policies on Population Behavior in the Netherlands

In comparison, Haas, Faber and Hamersma[8] evaluated the effects of the Dutch government's intelligent lockdown on people's activities and travel behavior. Their findings are based on a representative sample of about 2,500 respondents from the Netherlands Mobility Panel (MPN). The authors show that approximately 80 percent of people reduced their activities outdoors, with a stronger decrease for older people. Fully 44 percent of workers started or increased the number of hours working from home and 30 percent have more remote meetings. Most of these workers report positive experiences. Students and school pupils, however, are mostly unhappy with online education at home. Furthermore, the number of trips and distance travelled dropped by 55 percent and 68 percent respectively when

Fig.2. The reproduction number of COVID-19 and its correlation with public health interventions.

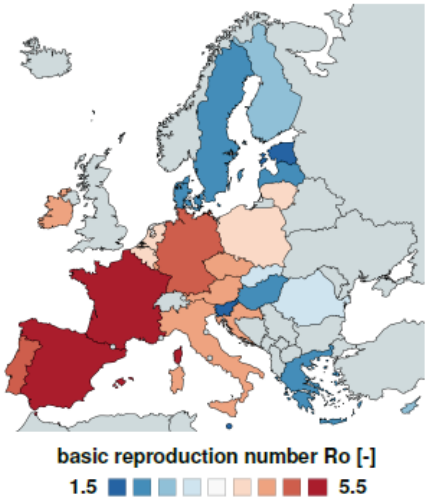


Fig. 3 Basic reproduction number R_0 of the COVID-19 outbreak across Europe. The basic reproduction number characterizes the number of new infectious created by one infectious individual at the beginning of the outbreak. It has maximum values in Spain, France, and Germany with 6.0, 5.9, and 5.5 and minimum values in Estonia, Slovenia, and Malta with 1.5, 1.4, and 1.3.

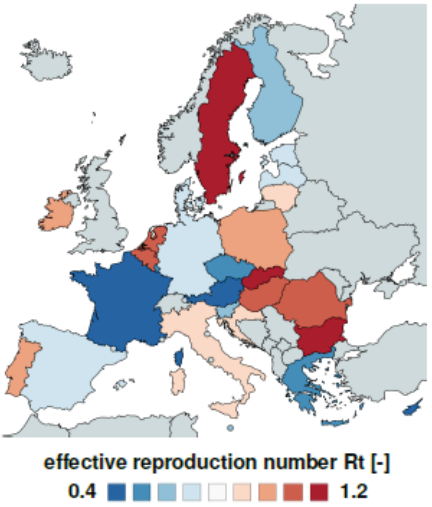


Fig. 4 Effective reproduction number R_t of the COVID-19 outbreak across Europe. The effective reproduction number characterizes the number of new infectious created by one infectious individual at the current stage of the outbreak. It has maximum values in Slovakia, Bulgaria, and Sweden with 1.4, 1.1, and 1.1 and minimum values in Austria, Cyprus, and France with 0.4, 0.3, and 0.3; current date: April 24, 2020.

MedRxiv : the preprint server for health sciences. 10.1101/2020.05.01.20088047. [6]

compared to the fall of 2019. The researchers stress that changes in outdoor activities seem to be temporary. Moreover, 27 percent of home-workers already expect to work from home more often in the future. In addition, 20 percent of those surveyed expect to cycle and walk more, and 20 percent expect to fly less in the future. These findings indicate that the COVID-19 crisis might result in structural behavioral changes, suggesting that the Dutch policy could be effective in the long run.

The Dutch Health Infrastructure as Cause for Political Tension

What are the implications of the virus for the healthcare system? Netherlands has a compulsory basic insurance system for all citizens. Health insurers are willing to take on high risk individuals because they receive compensation for the higher risks. Dutch government subsidies pay about 75 percent of insurance costs, and most insurance companies operate as non-profits. Children up to 18 years are exempted from the premium. Those who do not enroll in an insurance program each year are automatically signed up for an insurance plan and charged rates about 20 percent above voluntary enrolment rates. As of January 2020, the average annual insurance premium is about €1,400, or $1,615 and annual deductibles are capped at €385 ($429), although people can choose to pay a lower monthly premium in exchange for a higher deductible—up to €885 ($980).[9]

Characteristic of Dutch health infrastructure is a combination of private markets and government regulations working together within different parts of its system—the general practitioners, private insurers, home nurses, and the emergency departments. Dutch healthcare policy is based on small scale healthcare (first line medical practitioners and municipality healthcare service [GGD]), close to the people, focussing on prevention and quality of life. In life threatening situations patients may decide for themselves about continuing treatment, related to their quality of life. Upscaling to medical specialist care normally goes by the first line medical practitioners to keep costs low. The goal is high quality and efficiency, broad access to care, equity, and the ability to lead long, healthy, productive lives. Moreover, for more than 15 years the political choice was little investment in expensive highly specialized health care for a small group. Therefore, the number of IC units always stayed low.[10] In the case of COVID-19, Dutch general practitioners asked their patients over the age of 80 if they preferred to use the IC or remain at home. The initial Dutch COVID-19 policy intent was to flatten the curve of infections and to keep hospitalization low through two policies: the intelligent lockdown and the herd immunity concept. The latter could have happened via children and young adolescents, who are less susceptible to the virus. However, the influence of a group of medical specialists led to closing the schools, which cut off the herd immunity option.

The Netherlands together with Britain's national healthcare system ranks first on all World Health Organization quality scores. Some studies indicate that lifestyle may be a more significant factor than the healthcare systems. For example, Americans have higher rates of obesity, while some EU countries have higher rates of smoking. Some countries have a much older population prone to more chronic and epidemic diseases (EU28: 20.3 percent over age 65, Netherlands: 19.2 percent, Sweden: 19.9 percent, Germany: 21.5 percent, Italy: 22.8 percent)[11] Southern European countries, having relatively aged populations as well as relatively high levels of inter-generational co-residence, are, all else equal, the most vulnerable to outbreaks of COVID-19. Hoffman and Wolf[12] showed with data from 20 European countries, the United States and Canada that the variance of crude case fatality rate (percentage of deceased) of COVID-19 is predominantly (80 to 96 percent) determined by the proportion of older

individuals who are diagnosed with SARS-CoV-2.

With respect to older populations, Esteve et al.[13] initially showed that preventing primary infections among the elderly (by closing elder care centers completely to family) was the most effective in countries with small households and little inter-generational co-residence, such as the Netherlands, Sweden, and France. But during the year 2020 many COVID-19 breakouts took place in elder care homes, especially in the Netherlands and in Sweden. Isolation actually increased the risk of infection, further increasing as facility personnel were relegated to last-in-line for facemasks.

The COVID-19 virus poses major challenges to healthcare systems worldwide. "Countries with 'stronger' primary care systems (e.g., the Netherlands and England) seem to be better prepared to address these challenges than countries with 'weaker' primary care (e.g., USA). The role of primary care in a healthcare system is strongly related to its organization and funding, thus determining the starting point and the possibilities for change."[14] But at the end of the year, all differences in policies seemed not to lead to large differences in mitigating the corona pandemic.

Military Assistance to Prevent the Collapse of the Healthcare System

In an urgent letter to various ministries, Groningen and Twente provinces asked for military assistance in nursing and care homes. Without the additional help, the worst-case scenario might play out, which is that the minimum level of care would no longer be provided. "The need is unprecedented," the Mayor of Groningen, Koen Schuiling, wrote in the letter. The Groningen and Twente regions were faced with rapidly increasing numbers of SARS-CoV-2 infections. Simultaneously, absenteeism among staff members of nursing and care homes and disabled care facilities were increasing rapidly. This reflects a long-standing structural weakness of the Dutch healthcare system: the shortage of experienced personnel. One of the reasons often mentioned is the very low salaries for care-workers.

Financial Support to Soften Economic Pain

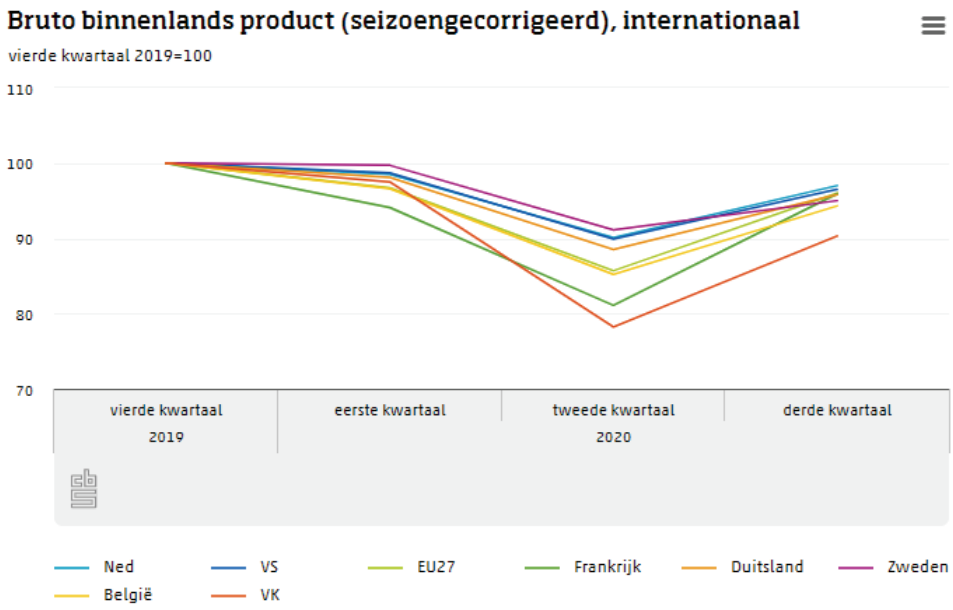
At the same time, almost from the beginning of the pandemic in the Netherlands, the government announced financial support packages for affected sectors of the economy. There are several economic support measures in place for businesses affected by the COVID-19 crisis .[15] The Dutch economy shrank, but less than in surrounding countries. (fig. 3).

What made the Dutch economy more resilient? Was it directly related to the Dutch lockdown measures, or could it be explained by structural factors such as the shrinking of some industries or the level of connectivity and the digital economy? According to the Netherlands Statistical Bureau, some economic sectors shrank much faster in Belgium than in the Netherlands, including industry, construction, trade, transport, and catering. These sectors explained 72 percent of the difference in contraction of all sectors between the two countries in the second quarter of 2020, at the height of the lockdown.

A second structural factor is probably the high digitalization of the Dutch economy. Based on data prior to the COVID-19 pandemic, the Netherlands ranks 4th after Finland, Sweden, and Denmark in the 28 EU States according to the Digital Economy and Society Index (DESI). Nearly 100 percent of Dutch households have access to broadband internet, which created high resilience for working at home and home-schooling. Even before the COVID-19 pandemic 40 percent of the Dutch workforce worked at home occasionally (1 day a week or more); in 2020 this increased to 60 percent and for 4 or 5 days a week (CBS 2020).

Predications are that for the Netherlands the economic recovery after the COVID-19 crisis will be quick based on digital technologies and broad

Fig. 3. GDP (seasonal corrected) in an international context

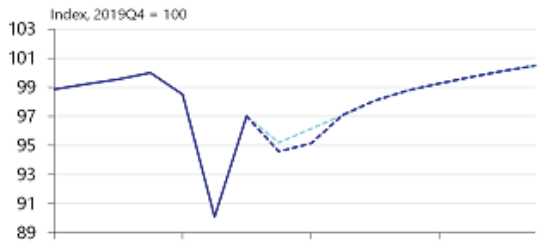


Source: CBS - https://www.cbs.nl/nl-nl/nieuws/2020/46/impact-corona-op-nederlandse-economie-minder-sterk-dan-gemiddeld-in-de-eu

experience during the lockdowns (Brand, 2020). According to November 2020 projections by the Netherlands Bureau for Economic Policy Analysis,[16] the Dutch economy will decrease 4.2 percent in 2020 (or as much as 4.4 percent due to the new lockdown in December) and will grow 2.3 percent for 2021, and 2.7 percent in 2022.[17] Although the Netherlands is undergoing its strictest lockdown to date with the forced closure of (parts of) essential stores, this is expected to be less steep in economic effects than during the first wave. The economy is likely better prepared to operate in the second COVID-19 wave, as international value chains are now less disrupted and government support packages are already operational and will be continued.

Unemployment will rise above 6 percent in 2021, particularly affecting young people, employees on a flexible employment contract, and self-employed independents. However, longer, stricter measures in the second wave in 2021 could dent economic growth prospects. The Swedish government, with the lightest lockdown, champion of the responsible citizenship and protector of the economy, was forced to implement stricter regulations. The Swedish Finance Ministry's latest estimate for 2020 points to a 4.6 percent contraction.[18]

Fig. 4: Impact of hard lockdown



Source: RaboResearch, CBS (Statistics Netherlands)

Effects on Social Inequality and Future Developments

Social Inequality

The COVID-19 debates in the Dutch Parliament and in the media addressed the skewed effects of the different types of policies. A clear example is the closing of schools. This led to inequality between lower income (e.g., with no laptops and iPads for every child, no individual rooms, no parents that could help them with homework) and higher income families, and between poorer and richer neighborhoods. Another example is skewed gender effects. At the beginning of the pandemic the majority of infected and IC patients were older men with obesity, diabetes, and heart disease. Women faced the very late availability of facemasks for the (mostly female) personnel in the lowest paid care jobs (in home care and nursing homes). In the Netherlands 80 percent of the care staff are women. In the care of the elderly, this percentage is even higher. Residents of Dutch nursing homes are primarily elderly females. In the first wave nearly 50 percent of the Dutch COVID-19 deaths lived in nursing homes.[19]

Future Developments

As of the beginning of 2021 the vaccine is on its way and countries have begun vaccinating. This suggests that the virus might be under control soon. In the EU the Netherlands was the last country to start, ironically due to the high quality of its small-scale health care vaccination system that in this case did not merge with the large scale vaccination production of the pharmaceutical industry.

An interesting question is whether the COVID-19 pandemic will mark the onset of fundamental societal changes, or will countries after the vaccination return to business as usual as soon as possible? Many predictions have been offered. Many philosophers, critical politicians, and scientists argue that this pandemic exposes many shortcomings and deep problems of our modern capitalist society: the needed climate change behavior (substantial reduction of meat consumption and air travel), the exploitation of the planet (carbon emissions, pollution), wealth inequality (excessive wealth of 1 percent of the population and increasing inequality in all countries). At the same time, there is growing criticism of policies. There are growing numbers who doubt the motives of government policy, both domestic and international. They believe that government serves special interests. The latter group is mainly active online. The patterns seem to be linked to the social position of people. The stronger people's position in terms of health, education, income, and job security, the greater the confidence.[20] Conspiracy theories flourish, creating an existential threat model that tries to make sense of distressing societal events (e.g., COVID-19) and the negative emotions associated with these.[21]

Marinov focuses on the emotional development among five Dutch COVID-19 twitter communities in the early pandemic: government and health organizations, news media, politicians, the general public, and conspiracy theory supporters, investigating differences among them in topic dominance and the expressions of emotions.[22] The results indicate that the national focus on COVID-19 shifted from the virus itself to its impact on the economy between February and April 2020. As in other crises, the overall emotional public response appears to be substantially positive and expressing trust.

The Dutch sociologist Boutellier combined the apparent contradictions in 2004: "The risk culture creates an atmosphere of vitality and exuberance and simultaneously evokes a need for safety and protection."[23]

Conclusions

Starting with the light, so-called intelligent lockdown policy, the Netherlands eventually turned to the more drastic measures adopted in neighboring

countries. Ultimately the Dutch did not stand out in any particular way. Temporarily positive initial results vanished in the latter phases, similar to the experience in most surrounding countries. The Dutch approach was a combination of protection of vulnerable people, prevention against the overburdening the healthcare system, and restriction of economic damage. The Dutch emphasis on disease prevention seemed to yield positive effects in the short-run, but the institutionalization of large numbers of vulnerable old people in nursing homes appeared to be the weak link in the system in the longer-run.

The highly qualified, small-scale healthcare system—the pride of the Dutch—happened to work out negatively during the vaccination programming. Perhaps a positive development is that every step, every measure was heavily debated in Parliament, in the media, and at home. All the mistakes came to the fore in a transparent fashion.

Generous governmental funding and the strong economic infrastructure, including the relatively high degree of digitalization, made the Netherlands rather resilient in economic terms. The government stand on social protection and its financial support as a response to the most affected sectors supported small businesses and personnel in the short-term. As is shown, the COVID-19 crisis nevertheless will likely increase inequality and socio-economic divisions in gender and age cohorts.

"We'll be back soon! #corona-kindness" (Photo by Ewien van Bergeijk–Kwant at Unsplash, Rotterdam, The Netherlands, May 30, 2020)

Despite the intelligent policies, the COVID-19 crisis appears to be hitting the less well-off groups much harder. For example, they are more often affected by the virus itself, are more vulnerable in terms of poorer health, and suffer more from the lockdown living in cramped housing conditions and working in flexible work status. Furthermore, they use public transport more frequently.

According to a recent study of the Ministry of Public Housing, Welfare and Sports, it is precisely these flexible payroll jobs that are the first to disappear with the first economic downturn. The combination of all these possible developments, which have a major impact on mental health, with even worse health, financial, and digital skills, presents a worrying picture, according to the Ministry, especially if the pandemic continues significantly longer.

The COVID-19 pandemic sharpened the tensions between generations. Younger and older people both provide care and receive care. However, COVID-19 claimed its victims by far among the older generation. Will healthcare remain affordable and well organized, and how do we maintain inter-generational solidarity? Even during the intelligent lockdown young people were subjected to limited freedom by the COVID-19 measures, which were mainly developed to protect the older generations. Moreover, the main driver of the COVID-19 policy measures was the ongoing concern about the limited healthcare capacity. Dr. Fauci might have looked with envy at the Netherlands because of the "unambiguous approach" to the pandemic; upon more careful examination it is clear, however, that the Dutch approach is not all that distinctive, and it has become far more typically European than is politically and culturally admitted at home. PRISM

Notes

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[3] Aantal dieren in Nederland 160 miljoen + dieren in het wild.https://www.cbs.nl/nl-nl/nieuws/2019/48/meer-geiten-minder-varkens-en-runderen https://www.dierenarts.nl/hoeveel-dieren-telt-nederland/.

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[5] Wibbens, P., Wu-Yi Koo, W. and McGahan, A. (2020). Which COVID policies are most effective? A Bayesian analysis of COVID-19 by jurisdiction. In: *medRxiv*, 03 Dec 2020. DOI: 10.1101/2020.12.01.20241695.

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[7] "SEIR model (**s**usceptible, **e**xposed, **i**nfectious, **r**ecovered) is a mathematical model that can project how infectious diseases progress to show the likely outcome of an epidemic and help inform public health interventions and to calculate the effects of different interventions, like mass vaccination programs.

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[9] Other source: (McGuire, Schillo, and van Kleef, 2020). Germany: €3034, Netherlands: €2504 US $5772 (silver plan benchmark average premium 2018).

[10] The number of ICU beds among European countries, which range from 4.2 ICU beds per 100,000 people in Portugal to 29.2 in Germany (EU mean: 11.5). (Rhodes, Ferdinande, Flaatten, et al., 2012).

[11] Eurostat (2020) Proportion of population aged 65 and over. https://ec.europa.eu/eurostat/databrowser/view/tps00028/default/table?lang=en. Accessed 24 Apr 2020.

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[15] Measures called NOW, Tozo and TVL are continuing during the second corona wave until January 2021. The volume of GDP fell by 9.4 percent compared with 2019. This was the strongest contraction ever measured by the Statistics Bureau of the Netherlands (CBS). Yet this decline is small compared to the decline of more than 20 percent in the United Kingdom and Spain, and 14.5 percent in Belgium.

[16] "Themes." Novemberraming: Economische vooruitzichten 2021 | CPB.nl. Accessed December 14, 2021. https://www.cpb.nl/en/projections-november-2020#docid-160399.

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