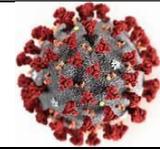


National COVID-19 Science Task Force (NCS-TF)



Type of document: Policy Brief

In response to request from: None

Date of request:

Expert groups involved: Economics

Date of response: 26/10/2020

Contact persons: Marius Brühlhart, Aymo Brunetti, Jan-Egbert Sturm

Comment on planned updates :

Title: The rationale for a substantial increase of resources for contact tracing and testing

Summary of request/problem

Executive summary

Widespread contact tracing and testing for COVID-19 are crucial components of the test-trace-isolate-quarantine (TTIQ) strategy. However, concerning the amount of testing, Switzerland currently lags behind many other countries with comparable income and many cantons are no longer able to ensure sufficient contact tracing. Insufficient public financing seems to be the major problem. We suggest that the federal government increases its involvement and together with the cantons immediately provides the resources for a very substantial upgrade of both activities. In an economic cost-benefit sense, this is one of the most effective and least-invasive investments into curbing the spread of the pandemic. Increasing public funding for TTIQ therefore also represents sound economic policy.

Main text

It is widely accepted that **contact tracing and testing are key to a successful control of the pandemic** (see e.g. the NCS-TF Policy Brief “Contact Tracing Strategy”, of 26 April). Recent media reports and plentiful anecdotal evidence suggest that many cantons are no longer able to keep up with this task, given the explosive increase in case numbers (see, e.g., the SRF report of 23 October). A majority of cantons admit that they no longer have the human resources to make all the necessary telephone calls. Unless it is again possible to comprehensively and quickly alert potentially infected persons, it will become very difficult to bring down infection rates in any other way than imposing very severe and for the economy costly social distancing measures.

This current situation implies that significant **upgrading of financing and personnel for contact tracing and also testing is a “low hanging fruit”** in the fight against the pandemic. In a recent report, the US-economists David Cutler and Larry Summers (2020) estimate that the economic benefits of testing and contact tracing are about 30 times larger than the costs. Our own Policy Brief on “contact tracing costs” (24 April) concluded that the monthly cost of 2,000 contact tracers amounts to about 0.5 percent of the monthly cost of a partial lockdown as imposed in Switzerland in March/April.

Every additional franc invested in contact tracing is therefore money well spent in the current situation.¹ Furthermore, compared to all other conceivable measures, this has the advantage of being non-interventionist and not impeding economic activity indiscriminately. In countries such as South Korea and Taiwan, widespread testing and contact tracing seem to have been crucial for successfully suppressing the pandemic (see Financial Times, 18 October). An additional benefit of contact tracing, if done with the required diligence and coherence, can be a valuable source of information supporting future policies.

Given that financing constraints of cantons seem to be a key issue, **we suggest that the Confederation immediately increases its involvement**, declares this a top priority and together with the cantons provides the necessary resources to substantially increase efforts. If needed, the government could also activate members of the civil protection (“Zivilschutz”, in the very short run) and the civil service (“Zivildienst”, in the longer run). It is not a pertinent argument that, given the strong increase in case numbers, it is impossible to have a perfect contact tracing that covers all cases. Perfection is not the relevant aim here; each prevented super-spreader and even each infection prevented has a considerable benefit (exceeding the costs) for the individuals affected and – via the substantial external effects – overall society. Cantonal governments will not fully internalise the external effects of insufficient contact tracing (i.e. undetected cases “exported” to other cantons), which provides an economic rationale for coordination and at least partial financing by the federal government.

Testing is a necessary complement to contact tracing. PCR tests for the presence of SARS-CoV-2 are known to be reliable and can in principle be scaled up thanks to automated large-scale processing. They should play a central role in the fight against the pandemic. In addition, we now have the flash tests (“Schnelltests”). Suppose testing had zero cost and tests would be available in infinite amounts. In that case, it would be optimal to test the entire population daily, so as to identify and isolate infected persons. Combined with rapid and precise contact tracing (as the tests lack sensitivity in the early days of infection), this could crush the pandemic completely.

In the real world, testing is costly and therefore cannot be administered to all the people all the time. One more realistic approach, therefore, would be to test everybody who has reason to suspect that he or she might be infected. Such reasons can cover a wide spectrum, reaching from “weak” motivations, such as self-assessed suspected contact with a potentially infectious person, all the way to “strong” motivations such as a doctor’s referral due to the appearance of symptoms typical of COVID-19.

We have argued in our Policy Brief of 15 May that testing should be free at the point of use, and that the costs should be covered by the Confederation. In line with this

¹ In this document we focus on manual contact tracing, i.e. the process of rapidly (!) contacting persons after obtaining a positive test results, in order to establish their recent contacts (“forward” tracing) as well as other potentially infected persons at the original place of infection (“backward” tracing) and to alert those contacts so that they can quarantine. Digital proximity tracing (e.g. through the SwissCovid app) is an important complementary tool for effective TTIQ.

recommendation, the Confederation has been covering the costs of tests for four categories of people (according to the FOPH “Faktenblatt”):

- People with COVID-19 symptoms
- Asymptomatic people who have received a warning from the SwissCovid app
- Asymptomatic people identified as potentially infected by cantonal contact tracing services
- Asymptomatic people referred to testing by the cantonal health authority for other reasons

Even though this appears to be a generous regime, **the incidence of testing has remained low in Switzerland compared to other countries**. A recent data analysis (NZZ, Oct. 22) shows that between April and October 2020, no other European country has expanded testing less than Switzerland. Relative to its income per capita, Switzerland even appears as the country with the least amount of testing across European countries for which data are available. Recent positivity rates by far in excess of 20% clearly indicate that testing is insufficient.

Widespread testing is a relatively cheap measure. Suppose that every Swiss adult got tested once a month, and suppose a test costs CHF 170 (which is the current compensation paid by the Confederation per test). This hypothetical and extreme scenario would imply a total monthly cost of close to CHF 1 billion. Yet, compared to the estimated monthly cost of a lockdown quickly going into the tens of billions, even such an extreme testing regime does look cost-effective.

There may in the short term be capacity constraints on reagents, specialized manpower and other inputs to testing, but given the resources available in Switzerland and the economic and health risks at stake, there is a very strong case for an expedited expansion of testing capacity. This would allow many to be tested as soon as they have any reason to suspect that they could have been infected. In Denmark for example, everyone can be tested anytime so that 2.5 times more tests (per 100'000 people) are made than in Switzerland.

In sum, we make the following urgent recommendations:

- 1. Substantial increase in the support for cantonal contact-tracing organisations**
 - a. through (co-)funding from the federal budget, and**
 - b. if in addition required, by offering manpower and other resources from e.g. the civil protection and the civil service.**
- 2. Examine ways of boosting testing**
 - a. through federal (co-)funding of an increase in capacity,**
 - b. by dropping eligibility requirements for access to free testing, and**
 - c. by communicating pro-actively that “if in any doubt, get tested”.**

References

- Cutler, David and Lawrence Summers (2020, Oct. 12): “The Covid 19 Pandemic and the \$ 16 Trillion Virus”, Journal of the American Medical Association
<https://jamanetwork.com/journals/jama/fullarticle/2771764>
- Financial Times (2020, Oct. 18): “Covid 19: The Global Crisis – in Data”
<https://ig.ft.com/coronavirus-global-data/>
- FOPH (2020, June 25): “Faktenblatt: Regelung der Kostenübernahme der Analyse auf SARS-CoV-2 und der damit verbundenen Leistungen”
<https://www.news.admin.ch/news/message/attachments/62628.pdf>
- KOF Analysis lockdown (press notice): <https://kof.ethz.ch/news-und-veranstaltungen/medien/medienmitteilungen/2020/04/coronavirus-kostet-die-schweizer-volkswirtschaft-bis-zu-36-milliarden-franken.html>
- NCS-TF (2020, April 24): Policy Brief “Contact Tracing Costs”: <https://ncs-tf.ch/en/component/edocman/policy-briefs-fr/contact-tracing-costs-24-april-20-en-3>
- NCS-TF (2020, April 26): Policy Brief “Contact Tracing Strategy”: <https://ncs-tf.ch/en/component/edocman/policy-briefs-de/contact-tracing-strategy-26-april-20-en-3>
- NCS-TF (2020, May 14): Policy Brief “Who Should Pay for SARS-CoV-2 Testing”: <https://ncs-tf.ch/en/component/edocman/policy-briefs-de/who-should-pay-for-sars-cov-2-testing-15-may-20-en-2>
- NZZ (2020, Oct. 22): Das Corona-Testing wurde zu kleinflächig ausgebaut:
<https://www.nzz.ch/wirtschaft/schweiz-das-corona-testing-wurde-zu-kleinflaechig-ausgebaut-ld.1582227>
- SRF (2020, Oct. 23) “Wo die Kantone beim Contact Tracing ans Limit kommen”:
<https://www.srf.ch/news/schweiz/luecken-und-tuecken-wo-die-kantone-beim-contact-tracing-ans-limit-kommen>