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The Independent Scientific Advisory Group for Emergencies (SAGE)

The Independent SAGE Report 40

An Independent SAGE position paper

Supported isolation

Why supported isolation is crucial to break community transmission

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Why supported isolation is crucial to break community transmission

As early as 29th January 2020, the World Health Organization (WHO) informed all countries that "We can stop transmission chains." Isolation of cases and contacts is the most efficient and focused way to clamp down on the virus and break transmission chains. Countries that have done this effectively have had fewer lockdowns and much lower death rates. As the Nobel prize-winning economist Paul Romer wrote in March 2020, "If we contrast a nonspecific policy of social distance with a targeted policy guided by frequent testing that is equally effective at containing the virus, how much more disruptive is the nonspecific policy? Answer? Way more disruptive."

The key to blocking transmission is that people suspected to be infected (based on symptoms) or exposed to infection are tested with the result provided within 24 hours and supported to quarantine at home or in supervised facilities for 14 days, or, if they have a negative test, at 10 days. Confirmed cases must be helped isolate, with clinical monitoring and financial support to allow them to pay bills, feed their family and not worry about a loss of income.
Close contacts of suspected cases must be tracked, traced and tested as quickly as possible. Forward tracing (those who may have been infected) and backward (those who may have transmitted the infection) are both important.
Too often, governments have focused on the number of tests done, but not the speed of test reports, completeness of tracing, and effective isolation of both cases and asymptomatic close contacts.
The Table drawn from Wikipedia and country reports shows the experience of different countries with test, trace and isolate. The death rates (on March 18 2021) in each country are markedly different, in part due to the success or otherwise of a wide range of non-pharmaceutical interventions.

Table: FTTI performance based on qualitative assessment from Worldometer and Wikipedia reports

	Deaths per million (by 31st December 2020)	Test results <24h	Tracing run locally with high coverage	Finance adequate for isolation	Hostels, hotels offered for isolation	Routine clinical follow-up for cases + contacts in community
Taiwan	0.4	*****	*****	Yes	Yes	Yes

	Deaths per million (by 31st December 2020)	Test results <24h	Tracing run locally with high coverage	Finance adequate for isolation	Hostels, hotels offered for isolation	Routine clinical follow-up for cases + contacts in community
Vietnam	0.4	*****	*****	Yes	Yes	Yes
China	3	*****	*****	Yes	Yes	Yes
New Zealand	5	*****	*****	Yes	Yes	Yes
S Korea	33	*****	*****	Yes	Yes	Yes
Australia	35	*****	***	Yes	?	?
Japan	69	*****	*****	Yes	Yes	Yes
Norway	119	*****	***	Yes	?	?
Finland	145	*****	?	Yes	?	?
Denmark	413	*****	?	Yes	?	?
Germany	890	*****	?	Yes	?	?
Greece	703	*	?	?	?	?
Sweden	1305	?	?	?	?	?
Brazil	1335	*	*	No	?	?
France	1402	?	*	?	?	?
USA	1657	*	*	No	No	No
Spain	1556	*	*	No	No	No
UK	1848	*	*	No	No	No

Good = *****
Average = ***
Poor = *

What did countries with low death rates do?

Few countries in Asia have had national lockdowns. They focused on rapid action to break transmission, through local lockdowns, intense testing in hotspot areas, community worker-led contact tracing and follow-up, with links established with primary care services for all cases and contacts. These arrangements provided symptom monitoring and reassurance, hotel, hostel or community centre isolation facilities if home isolation was difficult, and generous financial support to all cases and close contacts during isolation.

South Korea had no national lockdown but a rapid deployment of mobile clinics in the two hotspot provinces. Free testing was available, with quick results provided within a few hours. An app is given to positive cases, which required them to enter their symptoms twice daily, and allowed the authorities to monitor their GPS signal for compliance with isolation. Food and medicines were provided, allied to financial support to cover rentals and living costs, and guaranteed employment. China did the same. Within two weeks, they mobilised 9,000 community workers for tracing and isolation support to cover a population of 11 million people in Wuhan.

Asian states also devoted serious attention to media coverage, and through 24 hour TV stations in each province, shared information, preventive messages, local data, stories and news items.

The UK experience with supported isolation

There is no apparent reason why we could not have emulated Asian countries. The English epidemic began with hotspots in London and the West Midlands. We could have broken transmission chains if we had mobilised local test and trace capacity during February and early March, with proper incentives for isolating households, and community facilities provided for less severe cases. But the 'scientific advice' supplied to the government was erroneously based on the 2011 pandemic influenza plan, and determined there was no point in stopping the spread of infection. On 9th March 2020, SAGE minutes report the unanimous view that China and other Asian states would inevitably face a sizeable second wave. This hasn't happened. Asian death rates are 50-1000 times lower than in the UK. In January 2021, Asian states have seen minor flare-ups, which they have tackled aggressively with mass testing, community contact tracing, supported isolation and local lockdowns.

A UK CORSAIR study of 2,240 people in May 2020 showed that of those who reported symptoms of COVID-19 in the previous seven days, only 18.2% said they had not left home since developing symptoms (1,2) . Remarkably, 75% of those with someone in their household with COVID-19 symptoms had left home in the last 24 h. The volume of outings and shopping for non-essentials indicated non-adherence to lockdown. In the CORSAIR studies, the

main self-reported reason for low adherence was mild or reducing symptoms, which suggests that people need more information about symptoms and better understanding of why they are self-isolating. Financial factors were key: demographic data in the CORSAIR study show that low paid people were among those least likely to self-isolate for the full period; and financial reasons were clear from the self-reports.

Our government now faces unenviable choices. A secondary wave of cases with a new and more transmissible variant has surged across the country, particularly affecting more deprived areas, making test and trace more difficult. Roll-out of vaccination is the government's principal, and possibly only, strategy, but the earliest estimate for all adults to be vaccinated is August 2021. Vaccination in the presence of high transmission risks further mutation of the virus. Strengthening measures to break community transmission should remain a priority.

Recommendations for improving 'SUPPORTED ISOLATION'

The government could soon be forced into a second national lockdown as a circuit breaker. But suppose we want to avoid the risk of severe economic disruption from repeated national lockdowns until we get fully vaccinated. In that case, we must urgently reform isolation policies with strong clinical support, practical support and financial compensation to encourage households to adhere. Punitive fines and police surveillance are the wrong tactics.In August, scientists from SAGE subgroups and others published an article in which they modelled the effect of different measures on reporting symptoms and self-isolation, and argued that 'Legal enforcement of self-isolation can create trade-offs by dissuading individuals from self-reporting' (p. 1) and 'Overall this [analysis] implies that policies such as fines, and police enforcement of self-isolation will have either little benefit or a negative effect' (p. 14). Also a focus on rule-breaking in adverts and press briefings can create a false impression that large numbers of people are not bothering to isolate. (3,4)

The evidence suggests strongly that we need 'supported isolation' not just 'self-isolation'.

1. Local public health teams should be notified of all symptomatic cases and their contacts. Cases and their household contacts can be advised to isolate immediately until test results are returned through local contact tracers, supervised by public health and linked with primary care networks.
2. Testing should be embedded within NHS oversight and ensure a 24-hour turnaround for results. On 8th January 2021, test results returned within 24 hours were only 30% of all tests completed but by February had risen to 83% (5)
3. The test result should be given immediately to primary care physicians and local public health teams and the person tested, unless the person opts out of sharing the information while doing the test. Public health workers and local contact tracers should speak with the person involved to provide clear information, understand their competing priorities (other pre-existing conditions, care or work responsibilities etc.) that may hinder isolation. Local public health teams must have their own local contact tracers who can help GPs identify other close contacts in which cases have occurred.
4. All close contacts should similarly be asked to isolate, to take a test, given health advice, support and reassurance about the risks of infection and what to do if symptoms appear, and asked to report any deterioration in symptoms. They should also receive immediate access to financial support through a national online programme that reimburses all people as soon as they are asked to isolate

5. We should test apps that monitor people's adherence with isolation and incentivise them to provide daily reports on symptoms so that any clinical deterioration is observed and acted upon quickly.
6. Some members of households cannot effectively isolate themselves in their normal accommodation. The government must fund local authorities to requisition hotels or other acceptable local accommodation *where mild/moderate cases can be managed and monitored by trained health workers in full PPE.* (In Taiwan, they requisitioned 7000 hotel rooms. A similar number of rooms per head of population would mean 20,000 hotel rooms requisitioned in the UK. This would provide a stimulus to the hospitality industry, as long as hotel workers are fully trained in PPE and safe practices.)
7. Primary care staff (heavily supported by retired volunteer health workers) should explain COVID risks and the importance of isolation to all cases and contacts and follow them up with daily phone calls. This model can also be used to monitor and respond to longer-term COVID morbidities.
8. Public health teams should conduct rapid backward contact tracing to contain clusters more effectively and identify potential super-spreaders. They should also use simple surveys to monitor the effectiveness and compliance with isolation for national and regional data.
9. The government should make isolation financially feasible for all cases and contacts. One idea would be to provide a lump sum based on a living wage (£9.50 per hour, £10.85 in London) at the start, with a final incentive payment if the case/contact completes 14 days without breaking isolation as measured by an app monitoring the GPS signal. The current £500 sum, for which most people have their application rejected, is wholly inadequate and a disincentive to isolate. A minimum sum should be 14 days x £70 or £980.
10. For people living alone who do not wish to move to community care centres or hotel rooms, weened a system to assist with shopping for food, pharmaceuticals and other necessities. Either the state must provides support like shopping, meals (as in some countries) or the community must do it (mutual aid/ community groups). Mutual aid/ community groups themselves will need support and information from local authorities, and they will need storage space and funds. But they often value their independence too. (3,6)

Conclusion

Testing and tracing will only break transmission if positive cases and their close contacts isolate effectively. Yet currently, fewer than 30% of those who should isolate are fully adherent. Self-reported ability to self-isolate is three times lower in those who earn less than £20,000 per year or have less than £100 saved. The UK has one of the lowest proportions of normal income covered by statutory sick pay in Europe (29% compared to 100% in Germany and 93% in Belgium).

The UK's Scientific Advisory Group for Emergencies and the Independent Scientific Advisory Group for Emergencies agree that individuals need to be adequately supported for them to isolate. This includes a daily text or phone call, with the provision of food supplies and essential goods, and employment protection. The stress should be on community and family solidarity and togetherness. Existing test and trace policies have deviated from the advice provided by

Scientific Advisory Group for Emergencies and, without financial support to self-isolate, any much-needed improvements to the find, test, trace, isolate and support system will have a marginal impact. The continuation of this failure increases the risk of new outbreaks and further mutations in the virus.

The opportunity to get the virus under control is within our grasp because of the excellent vaccination programme and adherence to the current restrictions. To take maximum advantage of the situation and drive down numbers of new positive cases is possible if the measures outlined are followed. That would speed the return of much normal function to society and, importantly, enable us to protect ourselves from any further resurgence of cases.

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