# SOCIAL DISTANCING REVIEW - SAGE ADVICE

This document provides the science advice from SAGE for the review of social distancing measures in response to the questions set out by Cabinet Office on Friday 10 April.

Q1. The percentage likelihood of R in the community now being less than 1. Q.2. An updated estimate of R, in light of the latest data and with a confidence rating, including:

- a. a breakdown of R calculated against hospitalisations and against deaths; and
- b. a breakdown of R in different key environments: the community, hospitals, care homes.

**Summary**: R in the community is highly likely to be below 1 and could plausibly be any value between 0.5 and 1. There is currently significant transmission in hospitals, with a large degree of heterogeneity between different hospitals and in some R>1, and there is insufficient data to be able to estimate R in care homes.

### SAGE Consensus

Since the introduction of social distancing measures during March, transmission of SARS-CoV-2 has slowed and may be declining. The impact of these measures is starting to be seen in epidemiological data on new confirmed cases in hospitals.

There is evidence accruing that there are three distinct parts to the current epidemic: the community, hospitals and social care settings. There is a different pattern of transmission in each. SAGE's view is that, across the whole of the UK, the overall number of new infections in the community is highly likely to be dropping and new hospital admissions slowing significantly, but nosocomial infections mean that the overall general and ICU bed occupancy in hospital is reaching a plateau. It is likely that the number of hospital patients newly confirmed with COVID-19 is at a plateau or declining.

SAGE's view is that the reproduction number in the community, i.e. outside of hospitals, care homes, and other institutional settings, is highly likely (80-90%) to be less than 1. It will not be possible to robustly estimate the current reproduction number until around the end of April. Any value in the range of 0.5 to 1 is plausible.

It is almost certain that there is significant transmission within hospitals, known as nosocomial transmission. R could be above 1 in some hospital trusts, but this is not uniform, and it is not yet possible to estimate the reproduction number in hospitals as a whole.

There are insufficient data around cause of death in care homes to estimate the reproduction number in that setting. The number of care homes with outbreaks is almost certain to be increasing. Collecting data from care homes should be a priority, in order to understand transmission in this setting. Understanding (and then stopping) routes of infection into care homes is an urgent requirement.

# Q3. Any regional variance on 1 or 2 above - or variance across the Devolved Administrations.

# SAGE Consensus

Whilst there is variation in the epidemic across the UK's nations and regions, firm conclusions cannot be drawn. It is a realistic possibility that the epidemic in some regions, such as London, South East, and the Midlands, may be slowing faster than elsewhere. It is unclear why, but regional variations may reflect the result of differential adherence to social distancing measures. Overall although there is regional variation, this is not major.

### Interventions

Q4. A view on whether any measures could be amended, eased or lifted immediately, with a high degree of confidence that doing so would have a negligible impact on R (for example, communal spaces in parks or garden centres).

Q7. A view on whether there are any amendments that could be made to the current measures, or alternative ones that could be introduced, which would suppress the virus to an equivalent level but with lower wider economic and/or societal costs.

**<u>Summary</u>**: There are no amendments to social distancing measures that SAGE can say, with a high degree of confidence, would have a negligible impact on the reproduction number. SAGE does not recommend changing any measures at this time.

# SAGE Consensus

Reducing a reproduction number from around 3 to below 1 requires two-thirds of transmission to be prevented. If the reproduction number is currently just below 1, a small proportionate increase in transmission would return us to exponential growth. Even if the reproduction number is a low as 0.6, policy changes leading to an increase in transmission of 10-15% of its original level would still result in a return to exponential growth.

Relatively small policy changes to those currently in place cannot meaningfully be modelled. The uncertainty in the following statements is primarily due to an absence of scientific data, much of which is unknowable.

There are no possible amendments to social distancing measures that SAGE can say, with a high degree of confidence, would have a negligible impact on the reproduction number.

#### Outdoor activities outside the home

Relaxing restrictions on the use of outdoor spaces to permit a greater range of activities, such as sunbathing and permitting more than one period of exercise a day, while maintaining social distancing from those outside the household, would be very likely to have no more than a negligible <u>direct</u> impact on transmission but have a positive impact on health and wellbeing. It is important to note that such a relaxation, were it to be made, should not cover shared hard surfaces such as children's playgrounds.

Trialling any proposed easing of restrictions and evaluating the impact on behaviours and infection rates would be desirable. Easing restrictions on the use of outdoor space, when epidemiologically indicated, is likely to reduce the perceived costs and difficulty of maintaining adherence to the key infection control measures (i.e. avoiding all non-essential indoor social contacts) for a longer period.

If at some point lifting restrictions on garden centres is considered it would be important to permit access to other similar locations with a similar level of infection risk to avoid perceptions of inequity.

#### Indoor activities outside the home

More significant changes to social distancing measures, such as reopening other small shops, bars, or allowing greater attendance in workplaces are highly likely to result in a return to exponential growth.

# Workplaces

Q5. A view on the impact both behaviourally and epidemiologically of the Government introducing a clear public message about the importance of going to work if you cannot work from home, assuming the current measures remain in place.

**Summary:** SAGE does not recommend any changes to the current advice on going to work. SAGE are unable to give the precise advice that would be needed for different occupations and place of work with any degree of assurance. The current measures have been more stringently implemented by the population than anticipated in the modelling assumptions and the current SAGE view is based on the observed effect of this more stringent implementation.

# SAGE Consensus

The epidemiological impact of increasing the number of people attending workplaces will be different for different sectors and cannot be precisely

modelled. These general principles below **apply at any time when restrictions may be lifted**:

- There is lower risk when / if social distancing can be maintained both travelling to and in the workplace.
- There is likely to be a lower risk for outdoor workplaces, such as construction, as long as social distancing is maintained throughout the day, including for example at mealtimes.
- Staff who come into close contact with a high number of people for extended periods of time, such as hairdressers, would be at relatively high risk.

Consideration must be given as to how the environment in the workplace, transport and in other settings affects transmission, and where this could be altered in preparation for easing restrictions.

To ensure that any future changes to restrictions on activity outside the home do not result in an unacceptable increase in infections the following measures should be adopted:

- It will be vital to explain why and how the selected activities are safe to resume, and that changing restrictions on activity outside the home is not a signal that the risk from coronavirus is over.
- The public must understand that behaviour and infection rates will be very carefully monitored by a wide range of measures, and that tighter restrictions will have to be immediately re-imposed if there is an increase in risky behaviour or infection rates but that good adherence will provide the basis for further resumption of activity if infection rates remain well controlled.
- Trialling each phase of changes to activity in this way will reassure the public that the changes are safe to make and will encourage adherence to guidance for safe implementation by providing evidence of the effects on infection rates.

# Schools

Q6. A view on the epidemiological consequences of returning more children to school, for example if attendance were at 10 or 20%, and/ or introducing new opening patterns such as opening 3 days per week or alternate weeks.

**Summary:** SAGE recommend making no immediate changes to policies relating to attendance at schools. SAGE will consider whether there is any new information on transmission between children on SAGE on 16 April.

# SAGE Consensus

Evidence on the role of children in the transmission of SARS-CoV-2 is still limited. It is highly likely that they drive transmission less than influenza, and probable that they are, on average, less infectious than adults. Whilst we cannot robustly quantify the impact on the reproduction number that would result from reopening schools, doing so even partially would reopen currently closed links between households. It is highly likely that any reopening of schools would increase R above 1 and lead to a return to exponential growth in infections.

# Designing future interventions

Q8. A first iteration of a set of design principles or assumptions around which we might structure smarter NPIs, for example that the chance of transmission outside is [lower/ higher/ no different] than transmission inside; how long a contact needs to be for a transmission to occur; the ratio of contacts to transmissions and so on.

There are two primary objectives of social distancing measures:

The first is to reduce "contacts" (these are not necessarily physical contact) that are the opportunities for transmission. The aim is to reduce their number, duration and proximity.

The second is to reduce the diversity of contacts, that is to minimise <u>linkages between</u> <u>households</u> and so break chains of transmission.

In addition, behavioural and social interventions can be designed to allow mitigations to manage risks, for example:

- Testing: (e.g. on entry into care homes from hospital) to reduce transmission between cells
- Ventilation: to disperse virus-containing aerosols or droplets. Outdoors is generally more ventilated than indoors, and UV exposure may reduce infectivity; small, enclosed, humid spaces likely to be responsible for significant transmission.
- Surface transfer (fomites) can be mitigated by cleaning
- PPE may in certain circumstances be appropriate if available

Behavioural principles are also important and will require consideration, e.g. in terms of the impact of on/off measures, regional variation on adherence and the logical sequence of easing restrictions.

# PHIA Probability Yardstick

This yardstick has been used to describe uncertainty and confidence levels during SAGE and sub-group discussions.



Annexes: A: SPI-M consensus statement, B: SPI-B consensus statement

# SPI-M consensus view: the impact of social distancing measures on progression of COVID-19

### Date: 13th April 2020

Statements of probability are made in line with SAGE's framework of language for discussing probabilities, appended to this statement.

# Current state of the epidemic

- Since the introduction of social distancing measures during March 2020, transmission of SARS-CoV-2 has slowed and may be declining. The impact of these measures is starting to be seen in epidemiological data on new confirmed cases in hospitals.
- 2. There is evidence accruing that there are three distinct parts to the current epidemic: the community, hospitals, and social care settings. There is a different pattern of transmission in each. The first estimates of community and hospital cases are illustrated in Figure 1.

Figure 1: Estimated hospital confirmed cases by symptom onset date in England, stratified by community and nosocomial acquisition



3. Current data on cases identified through testing in hospitals suggest a significant slowing over the past week. Hospital bed occupancy and ICU occupancy are plateauing, and the

rate of increase of the number of deaths in hospitals has slowed greatly. This is indicative that the current measures are slowing virus transmission.

- 4. The number of calls to 999 and 111 has decreased since late March. Data from surveys of adults indicate that self-reported contact rates have dropped by around three-quarters. While the reproduction number cannot be directly estimated from data such as transport usage or footfall figures, these have shown significant changes which also imply potentially significant changes in contact patterns of individuals These data may be of greater use once they can be calibrated to the epidemiological data.
- 5. It is almost certain that there is significant transmission within hospitals, known as nosocomial transmission. A review of data from CO-CIN shows that nosocomial infection may account for between 10% to 22% of current hospitalised COVID-19 patients, and between 5% and 11% of recent deaths in hospital of COVID-19 [Figure 2]. These people developed COVID-19 at least five days (one mean incubation period) after they were admitted to hospital for another reason i.e. they were likely admitted virus-free and acquired SARS-CoV-2 within the hospital setting from a health care worker, another patient or from a contaminated environment. These data do not include people such as health care workers nor outpatients nor those discharged having acquired infection in hospital and later (re-)admitted. It is therefore very likely to be an underestimate of the scale of nosocomial transmission. This is in line with data from other sources including SAGE's nosocomial working group.



- 6. There is wide variation in the extent of nosocomial transmission in different regions and hospital trusts. The causes of nosocomial transmission, how it is increasing or decreasing in different locations, and its implications for the community epidemics and care home outbreaks requires urgent research.
- 7. The number of care homes with outbreaks is almost certainly increasing.
- 8. As a result, SPI-M's consensus view is that, across the whole of the UK, the overall number of new infections in the community is highly likely to be falling and new hospital admissions slowing, but nosocomial infections mean that the overall general and ICU bed occupancy in hospital is plateauing. It is likely that the number of hospital patients newly confirmed with COVID-19 is at least plateauing.
- 9. SPI-M's consensus view is that the reproduction number in the community, i.e. outside of hospitals, care homes, and other institutional settings, is highly likely (80-90%) to be less than 1. It will not be possible to robustly estimate the current reproduction number until around the end of April. Any value in the range of 0.5 to 1 is plausible.
- 10. It is not yet possible to estimate the reproduction number in the hospital environment.
- 11. There is insufficient data around cause of death in care homes to estimate the reproduction number in that setting.
- 12. Whilst there is variation in the epidemic across the UK's nations and regions, firm conclusions cannot be drawn. It is a realistic possibility that the epidemic in some regions, such as London, South East, and the Midlands, may be slowing faster than elsewhere. It is unclear why, but regional variations may reflect the result of differential adherence to social distancing measures.

# Future trajectory of the epidemic

13. There is a lag of approximately three weeks between viral transmission (initial infections) to seeing the impact of that infection in disease data (e.g. COVID-19 hospital admissions, ICU admissions, deaths). Different metrics are therefore representing the epidemic at different points in time. For example, the current death toll actually reflects infections that happened three to five weeks ago, whereas hospitalisations represent infections that

happened one to two weeks ago. As a result, the current data is only just beginning to represent infections that happened around the time of the UK lockdown or just after.

14. Short term forecasts from several groups represented on SPI-M have been aggregated. These are shown for England ICU occupancy in Figure 3. Difference in data definitions means that equivalent ensemble forecasts for Scotland, Wales, and Northern Ireland, have not yet been agreed by SPI-M. Preliminary results suggest that it is likely such forecasts would broadly follow the same trajectory as England.



Figure 3: Forecast of ICU bed occupancy for England

- 15. There are differences in views around the short-term trajectory of hospital bed and ICU occupancy. Whilst our central estimate is that these will remain broadly level for the next two weeks, we cannot rule out significant increases or decreases. This is due to the inherent difficulty of prediction over a peak.
- 16. Our central projection (Figure 4) is that number of COVID-19 deaths per day will remain roughly constant for the next two weeks, but it is a realistic possibility that they will continue to rise. This may not be reflected in the number of hospital deaths being recorded each day as i) there is a time lag between time of death and time of reporting and ii) not all COVID-19 deaths are included in the hospital deaths data

Figure 4: Forecast of all COVID-19 deaths in England, according to PHE line list by date of deaths



# Amending, easing or changing measures immediately

- 17. Reducing a reproduction number from around 3 to below 1 would require two-thirds of transmission to be prevented. If the reproduction number is currently just below 1, a small proportionate increase in transmission would return us to exponential growth. Even if the reproduction number is a low as 0.6, policy changes leading to an increase in transmission of 10-15% of its original level would still result in a return to exponential growth.
- 18. The uncertainty in the following statements is primarily due to an absence of scientific data, much of which is unknowable. Relatively small policy changes to those currently in place cannot meaningfully be modelled.
- 19. There are no possible amendments to social distancing measures that SPI-M can say, with a high degree of confidence, would have a negligible impact on the reproduction number.

- 20. Relaxing restrictions on the use of outdoor spaces, permitting a greater range of activities, such as sunbathing and permitting more than one period of exercise a day, while maintaining social distancing from those outside the household, is very likely to have no more than a negligible <u>direct</u> impact on transmission. However, changing such measures could have negative behavioural implications that are not within SPI-M's remit to assess. It is important to note that such a relaxation should not cover shared hard surfaces such as children's playgrounds without NERVTAG agreement.
- 21. More significant changes to social distancing measures, such as reopening other small shops, bars, or allowing greater attendance in workplaces are highly likely to result in a return to exponential growth.
- 22. Evidence on the role of children in the transmission of SARS-CoV-2 is still limited. It is highly likely that they drive transmission less than influenza, and probable that they are, on average, less infectious than adults. Whilst we cannot robustly quantify the impact on the reproduction number that would result from reopening schools, doing so even partially would reopen currently closed links between households. It is highly likely that completely re-opening schools would increase R above 1 and lead to a return to exponential growth in infections.
- 23. If further restrictions on contacts are required, allowing fewer people to attend workplaces would be a more effective strengthening measure than curtailing exercise or putting further limits on shopping.
- 24. If, once further epidemiological data are available, it becomes clear that R is significantly below 1, and testing for virus in the community has greatly increased so that it is possible to directly measure community transmission, SPI-M would be better able to assess how epidemiological changes align with policy changes. At that point it might be possible to model with greater confidence policy changes such as increases to the number of pupils attending school.
- 25. It is possible that, if different measures are relaxed at different times, SPI-M may be able to begin to understand the impacts of specific measures. For example, if only non-essential retail was opened at least three weeks before any other intervention is lifted, then we might be able to see the subtle impact of this change in epidemiological data and thus estimate this effect.

# Epidemiological impact of increasing the number of people attending workplaces

- 26. The epidemiological impact of increasing the number of people attending workplaces will be different for different sectors and cannot be precisely modelled. These general principles below **apply at any time when restrictions may be lifted**:
  - There is lower risk when / if social distancing can be maintained both travelling to and in the workplace.
  - There is likely to be a lower risk for outdoor workplaces, such as construction, as long as social distancing is maintained throughout the day, including for example at meal times.
  - Staff who come into close contact with a high number of people for extended periods of time, such as hairdressers, would be at relatively high risk.

# Annex 1: Matters requiring urgent scientific research

- The causes and routes of nosocomial transmission, and whether it is selfsustaining, i.e. R>1 in hospital environment
- How nosocomial transmission interacts with the community epidemic and transmission within care homes
- The proportion of infections that are asymptomatic
- The role of children in transmission

# Annex 2: SAGE framework of language for discussing probabilities



# SOCIAL DISTANCING REVIEW – SPI-B COMMENTS

### **SPI-B** Consensus

Since it is inevitable that there will come a point when it is sensible to reduce restrictions it is also important that this is commenced in a safe manner, with appropriate planning, preparation, guidance, support, testing and feedback from and to the community. The principles listed below are based on a paper in preparation by SPI-B that makes more detailed theory- and evidence-based recommendations relevant to supporting and sustaining adherence to infection control measures in the longer term. We have illustrated these principles in the first instance by applying them to the current context (see italicised text below), but they are intended to be relevant also to subsequent changes in activity restrictions. These principles are intended to supplement and complement the broader SPI-B guidance on communication strategy.

### Assumptions made:

Assuming that infection rates indicate that infection control needs to be maintained at the current level for weeks or possibly much longer, it is important to consider how to do this in a way that will maximise public support and adherence and minimise transmission.

### Overview of behavioural science advice:

A view on whether any measures could be amended, eased or lifted immediately, with a high degree of confidence that doing so would have a negligible impact on R (for example, communal spaces in parks or garden centres).

Supplementing the current 'Stay Home' instruction with guidance on how to undertake specific low risk activities outside the home without increasing infection transmission is a crucial first step towards actively engaging the community in taking personal responsibility for sustainable long-term management of the pandemic.

Trialling methods of phased introduction of changes to advice on activity will provide useful preparation for engaging the community with the more far-reaching changes to advice that will be required in the future. We note that Germany's detailed plan for infection control while resuming activity usefully applies similar principles to guide much more extensive resumption of activity in due course.

We recommend initially seeking to increase adherence to methods of reducing risk in higher risk contexts, while promoting longer-term adherence by carefully changing restrictions on the lowest risk activities when safe to do so and monitoring the effects of the changes on behaviour and infection rates.

# Trialling changing restrictions on the lowest risk activities when safe to do so:

 SPI-M advise that relaxing restrictions on the use of outdoor spaces, permitting a greater range of activities, such as sunbathing and permitting more than one period of exercise a day, while maintaining social distancing from those outside the household, is very likely to have no more than a negligible direct impact on transmission. Changing restrictions on outdoor activity to allow increased levels (providing social distancing and other infection control measures are maintained), may therefore be a sensible focus for trialling the easing of restrictions and evaluating the impact on behaviours and infection rates. Activity outside the home is more visible than private behaviour (such as gatherings in houses or gardens), and can therefore be monitored and regulated more easily by the community (for example, in cases where people do not follow guidance on safe usage of outdoor space), supported by the police where necessary.

- DHSC focus groups and surveys indicate that exercise outside the home is a high priority for many people and viewed as important to their mental health; YouGov polls indicate increasingly widespread emotional problems such as stress, frustration, anxiety, sadness and boredom.
- If restrictions on activity outside the home can be changed in a safe way this is likely to reduce the perceived costs and difficulty of maintaining adherence to the key infection control measures (i.e. avoiding all non-essential indoor social contacts) for a longer period. Increased exercise levels are known to reduce anxiety and depression, maintain better physical health and prevent obesity, and should be positively recommended as far as is safe.
- If visits to garden centres are considered sufficiently low risk to permit, it will be important to also permit visits to a much wider range of locations with a similar level of infection risk, to avoid perceptions of inequity among those without gardens or who prefer other activities and to prevent any initial overcrowding.

<u>A view on the impact both behaviourally and epidemiologically of the Government</u> introducing a clear public message about the importance of going to work if you cannot work from home, assuming the current measures remain in place.

A message that it is not too risky to engage in non-essential work, even if this involves poor social distancing in the workplace or when travelling to it, is inconsistent with a message that even brief, socially distanced encounters outside the home are so risky that they must be avoided.

Changing the restrictions to improve infection control at work/when travelling to work and allowing safe activity outside the home when and where this is possible and appropriate (based on infection rates) is more credible and likely to result in better adherence to both working and maintaining appropriate social distancing outside the workplace (see also our response to question 8).

To ensure that changing restrictions on activity outside the home does not result in an unacceptable increase in infections the following measures should be adopted:

- It will be vital to explain why and how the selected activities are safe to resume, and that changing restrictions on activity outside the home is not a signal that the risk from coronavirus is over and that it is safe to resume other activities or to abandon social distancing.
- The public must understand that behaviour and infection rates will be very carefully monitored by a wide range of measures, and that tighter restrictions will have to be immediately re-imposed if there is an increase in risky behaviour or infection rates but that good adherence will provide the basis for further resumption of activity if infection rates remain well controlled. It will be important to explain that, to ensure that infection rates do not increase, restrictions will have to be immediately re-imposed if there is an increase in risky behaviour even if no increase in infection rates is seen at first, since it takes 2 to 3 weeks to observe the effects of behaviour on transmission.

• Trialling each phase of changes to activity in this way will reassure the public that the changes are safe to make and will encourage adherence to guidance for safe implementation by providing evidence of the effects on infection rates.

A view on whether there are any amendments that could be made to the current measures, or alternative ones that could be introduced, which would suppress the virus to an equivalent level but with lower wider economic and/or societal costs.

- Since it is impossible to be certain that changes in restrictions will not increase risky behaviour and infection rates, changing restrictions on activity should only be trialled in locations and/or periods when the NHS would be able to cope with a small temporary rise in infection rates, which would then immediately trigger tighter restriction of activity to ensure that infection control was restored.
- We note that perceived inconsistencies in messaging and enforcement are likely to erode credibility and support for government policies and guidance, and so it is important that individuals and organisations do not go beyond the guidance – for example by suggesting or enforcing restrictions that are not part of the official guidance.
- Precise and consistent guidance on how infection control should be maximised must be provided when changing restrictions on activity. Guidance should be co-designed with members of diverse communities to ensure that it is feasible to implement; community members are likely to be able to identify potential barriers and suggest potential solutions, which may involve providing necessary resources or making social, organisational or environmental changes.
- For example, if trialling reducing restriction of activity outdoors, guidance could include: avoiding popular times and places; taking all supplies needed for self-sufficiency if possible; staying home if coughing or sneezing; ensuring that both locals and visitors observe social distancing and good hand and surface hygiene, providing facilities for this wherever possible (for example, re-opening toilets); redesigning public spaces to allow at least 2 metres separation and reduce hand/surface contact (e.g. widening paths, replacing stiles and gates).
- If trialling changing restrictions on outdoor activity, then as much outdoor space as possible should be made publicly available to reduce the risk of over-crowding for example, golf courses, school grounds, temporary closures of roads in residential areas to provide safe play areas. To reduce inequalities, those able to travel safely to less used locations could be encouraged to do so, to free up urban space for those unable to travel.
- If necessary, cooperative time zoning could be used to help keep population densities down in popular places if restrictions on outdoor activity are changed. This could include prioritising or reserving particular places, times or days for certain sectors of the population. Communities could play an active role in anticipating, reporting, stewarding (with police support if required) and managing problems with over-crowding or inadequate social distancing.

A first iteration of a set of design principles or assumptions around which we might structure smarter NPIs, for example that the chance of transmission outside is [lower/ higher/ no different] than transmission inside; how long a contact needs to be for a transmission to occur; the ratio of contacts to transmissions and so on.

# Improving adherence to infection control in higher risk contexts

- Behavioural interventions to maximise adherence to infection control must be based on analyses of current behaviour and its likely effect on transmission.
- Given current patterns of infection, this means that currently the focus needs to shift from
  policing relatively infrequent and low risk deviations from 'Stay Home' advice to
  monitoring and improving infection control in contexts where transmission is much more
  likely and may result in more severe illness, particularly care settings and workplaces
  (including travel to work). This change in focus should not only improve infection control
  but also help to reduce the increase in health inequalities currently resulting from greater
  exposure to infection of people on lower incomes (and hence also their families).
- Improving infection control in high risk settings will increase the credibility of advice on infection control in low risk settings.
- Existing Health and Safety regulations and enforcement processes can be harnessed to achieve better infection control in all workplace settings. This would involve using personal and workplace risk assessments to evaluate infection risks to everyone in the workplace and then identify, implement and monitor appropriate methods of reducing these (e.g. better provision of PPE; staggered shifts/alternating work days to avoid overcrowding at work and when travelling to work).
- This strategy can be implemented through employers and reinforced by helplines to enable employees to report inadequate implementation.