Encouraging Workers to Self-Report Exposition to COVID19

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The problem. As the economy reopens, employers are striving to adopt policies and practices that protect their employees from contracting COVID19. Resilient organizations should heed warnings of a possible second wave of infections in the fall and prepare to manage COVID19 cases among their workforce.

Data suggests that the value of prompt response is enormous. However, it is difficult to achieve since much of the contagion occurs via hard-to-identify pre-symptomatic patients. Ideally, employees would pro-actively report being at risk as soon as they suspect they may have been exposed. For instance, because they, or someone in their immediate environment, is experiencing early symptoms. This information would permit precautionary confinement.

Unfortunately, employees may not want to reveal that they are a contagion risk due to fear of stigma from their coworkers or direct managers. In spite of CDC and WHO guidelines on reducing stigma, those fears appear to be founded: reports of discrimination against COVID19 survivors and frontline workers abound. Worse, COVID19 disproportionately affects economically vulnerable groups.

A potential solution. We believe that "randomized response" survey methods developed by social scientists to elicit sensitive information about drug consumption or sexual behavior can be useful in this context. The key idea, introduced by Warner (1965), consists in obscuring the meaning of survey responses to ensure plausible deniability. For instance, a researcher seeking to estimate illicit drug use among athletes may hand survey respondents a deck of cards bearing different questions: 75% of cards bear the question "Do you use performance enhancing drugs?" while 25% of cards bear the question "Is your mother's birthday in the first half of her birth month?" An athlete can answer "Yes" to a randomly picked question without revealing for sure whether they actually use drugs.

In the context of COVID19, we propose the following "random rotation" policy, illustrated Figure 1:

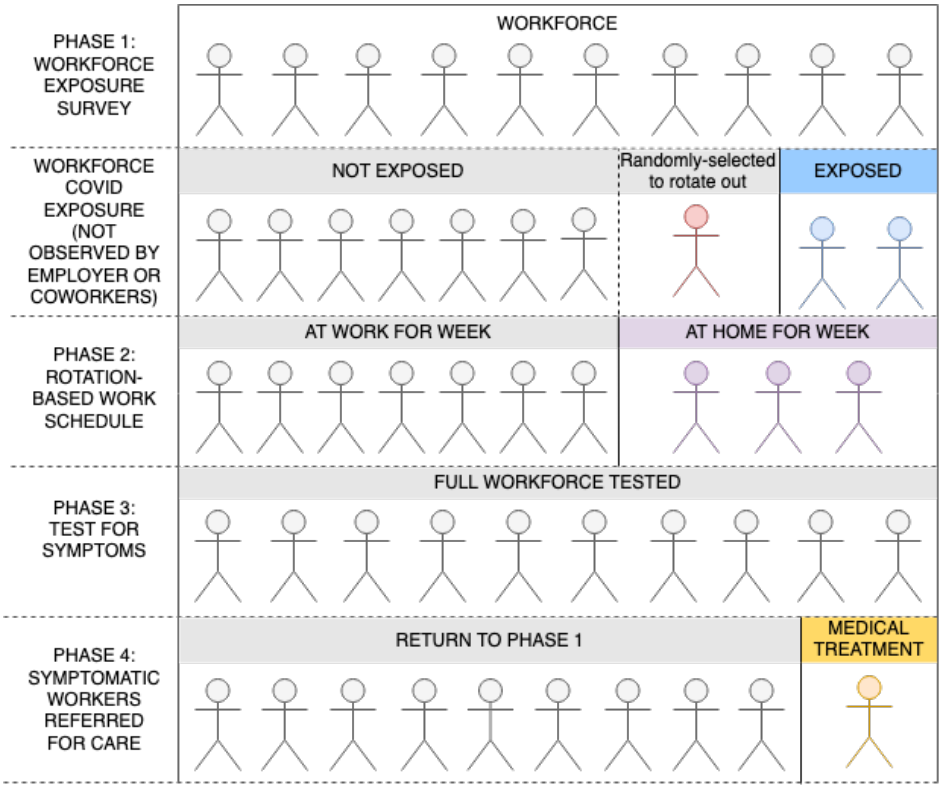
1. Regularly survey workers on COVID19 exposure and symptoms;

2. Systematically rotate a minimum share of employees (e.g., 5 to 10%) out of the workplace for a week, and test them for symptoms upon return. Employees rotated out include all employees reporting COVID19 exposure as well as a randomly-selected group of employees who do not. These employees are selected based on their survey responses, which as we describe above, are obscured so that it is impossible to know whether they answered 'yes' to COVID exposure or were randomly assigned to answer 'yes.'

Random rotation policies ensure that workers who report exposure have plausible deniability: an employee staying home may have been randomly-selected. In addition, random rotation allows workers concerned that they may be sick to temporarily isolate.

The cost of random rotation is that some employees will be sent home even if they don't ask to be. This is a calculated cost. The fact that healthy people can be rotated out of work is the reason it is safe to self-report exposure.

Figure 1: The random rotation workflow



Evidence. Randomized response survey methods are widely used to elicit sensitive information in social science. Cross validation studies comparing responses to randomized response surveys with direct measures find that they can significantly increase truthful reporting.

Using randomized response in organizational settings is a more recent idea. Laboratory evidence shows that plausible deniability improves whistleblowing, even under threat of retaliation. Preliminary data suggests that adopting policies guaranteeing plausible deniability increases altruistic reporting, perhaps because it signals that truthful reporting is an important goal for the organization.

Outside of social science research, protecting sources is a familiar concern for military and law enforcement agencies. Responses to information should not be too specific. For instance, part of the value of random "cordon and search" counter-insurgency operations

used in Afghanistan and Iraq is to allow military forces to act on information while protecting their sources.

Practical considerations. Organizations considering implementing a random rotation policy must answer a few practical questions.

- *Is random rotation right for my organization?*

  Three types of organizations are prime candidates:

  - Organizations in which workers frequently interact or work physically closely to each other, such as manufacturing facilities (e.g., meat-processing plants), farms, packing facilities, and shipment centers.
  - Organizations that employ front-line or customer-facing workers, such as hospitals, grocery stores, delivery services, hardware stores, and salons.
  - Organizations with office-based workforces, which can also use random rotation to determine who comes into the office and who works from home.

  Organizations that are not at full capacity will find that random rotation is easier implement, as they can use random rotation to decide who is working and when.

  Finally, random rotation is especially needed in organizations where a large share of the workforce is economically vulnerable.

- *What share of workers should be randomly sent home?*

  A plausible starting point would be to rotate out roughly 5% of the workforce and survey workers on whether they feel sufficiently protected to report exposure. Policies could be tailored at the department level to reflect differences in exposure risk and vulnerability to stigma.

- *How should self-reports be collected?*

  Ideally, a third party would collect workers' self-reports and report to HR the list of workers to be rotated out, without disclosing individual responses. For office-based workforces, companies that specialize in computer-based surveys with HR-applications, such as Qualtrics, could provide this service. For other types of workforces, companies that specialize in phone-based and automated surveys, such as ELEVATE's LaborLink team, are well-positioned.

  In-house HR departments could also carry out the policy using simple tools such as spreadsheets, paper ballots, or question cards. We provide templates for practical implementation here.

- *Will employees abuse the system and ask to stay home all the time?*

  This need not be a problem in practice. Random rotation only provides partial cover: If the same worker keeps asking to be put on leave, they will start looking suspect. The number of leaves per worker could be formally limited to 2 or 3.

  We are more concerned by the opposite outcome: even under random rotation, economically vulnerable employees may refuse to go home if their employer does not provide partial salary replacement.

  More broadly, employees' responses to random rotation policies will depend on how well management communicates their benefits to workers and to the company's ability to operate safely.

Finally, we note that the methods described here can be used to elicit sensitive information beyond COVID19 exposure. Mental health issues, burn out, or harassment often go unreported because of fear of stigma. Investing in survey methods ensuring plausible deniability can help get this information out and target support to the people who need it.

Interested in applying these policies in your organization? Find implementation resources here, or email the authors.