

Supplementary document: Questionnaire on the COVID-19 contact-tracing application 'COCOA'

Note: The survey was conducted in Japanese, and is translated to English in this document.

Conditions of Participation

- Age: Must be over 20 years old
- Must own a smartphone
- Must be currently working
- Approximately half of the respondents' jobs should be public-facing (e.g. customer service), and half should not involve contact with unspecified people such as customers and clients.

Questionnaire

Respondent information:

- 1) Age
 - a) [Enter number]
- 2) Gender
 - a) Man
 - b) Woman
- 3) Annual household income
 - a) Less than 2 million yen
 - b) 2 million to less than 4 million yen
 - c) 4 million to less than 6 million yen
 - d) 6 million to less than 8 million yen
 - e) 8 million to less than 10 million yen
 - f) Over 10 million yen
 - g) I don't know
- 4) Type of work
 - a) Full-time employees and civil servants
 - b) Part-time job
 - c) Business owners and freelancers
 - d) Contract employee
 - e) Temporary worker
 - f) Not working
 - g) Other [Free text]

- 5) Please choose an option to describe your current work schedule:
 - a) Work from home every day
 - b) Go to workplace every day
 - c) Go to workplace three or four days a week
 - d) Go to workplace once or twice a week
 - e) Go to workplace once or twice a month

- 6) Please choose an option to describe your job:
 - a) My job requires close contact with an unspecified number of other people, such as customers
 - b) My job requires close contact with a set number of people each day, such as co-workers or colleagues
 - c) The majority of my work can be carried out via telework or remotely
 - d) None

- 7) Area of residence (prefecture)
 - a) (Choose from a list of all prefectures in Japan)

- 8) Do you live with any of the following family members? (Select all that apply)
 - a) Spouse/partner
 - b) Guardian
 - c) Grandparents
 - d) Brothers and sisters
 - e) Children (infants)
 - f) Children (school age)
 - g) Children (adults)
 - h) Other

- 9) Are any members of your family, including yourself, considered to be at risk of becoming severely ill (e.g., the elderly, those with chronic diseases, etc.)?
 - a) Yes
 - b) No

- 10) Excluding roommates, how many people do you usually have close contact with (within 1 meter, in the same space for at least 15 minutes)?
 - a) About one person a week
 - b) A few people a week
 - c) A few people a day
 - d) More than 10 people a day

Questions about COVID-19 contact confirmation app (COCOA)



COCOA is an application developed by the Ministry of Health, Labour and Welfare (MHLW) in collaboration with the COVID-19 Response Technology Team. Using your smartphone's Bluetooth proximity communication function, you can be notified about possible contact with a person who has tested positive for COVID-19, without having to know each other and while ensuring privacy. No personally identifiable information, such as telephone numbers or location information, is recorded.

Definition of 5-point scale

5: Strongly Agree

4: Agree

3: Neither (don't know)

2: Disagree

1: Strongly disagree

11) What is your intention toward installing COCOA on your phone?

- a) I have already installed and am currently using it
- b) I previously installed it, but I am not using it anymore
- c) I definitely want to install it
- d) I probably want to install it
- e) I may or may not want to install it
- f) I probably don't want to install it
- g) I definitely don't want to install it

12) To what extent do you agree with the following items regarding COCOA?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Installing this app would be difficult or inconvenient
- b) I don't know how to use the app
- c) COCOA helps you maintain your own health
- d) COCOA helps reduce your anxiety about being infected
- e) I don't know what to do if I receive a notification of potential exposure to COVID-19

- f) COCOA helps protect family, friends and colleagues
- g) I don't believe that using the app will help prevent infection
- h) COCOA helps fulfill responsibilities to the community
- i) I am worried about information leaking to a third party
- j) My employer/supervisor has recommended or required me to use the app
- k) COCOA increases your anxiety about being infected
- l) COCOA was recommended to me by a family member, friend or colleague
- m) People around me are using COCOA, which makes me want to use it too
- n) I don't know if the app will work properly
- o) I don't think infected people would honestly register to COCOA

13) Assuming you had COCOA installed on your phone, if you were infected with COVID-19, would you take the following actions?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Register with COCOA that you have tested positive
- b) Tell your supervisor/employer
- c) Tell your friends and family
- d) Voluntarily self-isolate at home
- e) Other (please explain) [text response]

14) Assuming you had COCOA installed on your phone, if you received a notification that you had close contact with an infected person, would you take the following actions?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Contact a public healthcare centre and get a PCR test
- b) Monitor your condition and if there is no change, let it go
- c) Tell your supervisor/employer
- d) Tell your friends and family
- e) Voluntarily self-isolate at home
- f) Other (please explain) [text response]

15) Are there any people you know who use COCOA?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Employer/supervisor
- b) Employees and Subordinates
- c) Family
- d) Friends
- e) Colleagues and classmates
- f) Neighbours
- g) Other (please explain) [text response]

16) Have any of the following people recommended COCOA to you?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Employer/supervisor
- b) Employees and Subordinates
- c) Family
- d) Friends
- e) Colleagues and classmates
- f) Neighbours

g) Other (please explain) [text response]

17) Have you recommended or would you recommend COCOA to the following people?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Employer/supervisor
- b) Employees and Subordinates
- c) Family
- d) Friends
- e) Colleagues and classmates
- f) Neighbours
- g) Other (please explain) [text response]

18) Do you think the following people should install COCOA?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) People working in the public sector
- b) People whose work involves close contact with an unspecified number of people
- c) Youth
- d) Elderly people
- e) People with pre-existing conditions that put them at risk for serious illness
- f) Everyone

19) In general, what do you think **users with** COCOA installed will do if they are **infected with a COVID-19**?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Register with COCOA that they have tested positive
- b) Tell their supervisor/employer
- c) Tell their friends and family
- d) Voluntarily self-isolate at home
- e) Other (please explain) [text response]

20) In general, what do you think **users with** COCOA installed would do if they received a **notification of close contact** with an infected person?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Contact a public healthcare centre and get a PCR test
- b) Monitor their condition and if there is no change, let it go
- c) Tell their supervisor/employer
- d) Tell their friends and family
- e) Voluntarily self-isolate at home
- f) Other (please explain) [text response]

21) Please select the statements you think correctly describe COCOA.

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) It is possible that an infected person could be identified in some way
- b) COCOA's accuracy for detecting close contact with infected people is very high
- c) COCOA records one's location
- d) COCOA records who you were with
- e) The data recorded by COCOA is maintained on a server
- f) None of the above

- 22) How do you think installing COCOA affects or would affect you in your daily life?
[Free text] *Answers of at least 20 characters

Trust in society

- 23) In general, do you feel you can **trust** the following organizations?
On a scale of 5 (very reliable to not at all reliable) for each item
- a) Government and other public bodies
 - b) Organizations and groups that developed the COCOA app
- 24) Please indicate whether you agree or disagree with the following statement: “In general, I feel that my **clients and/or customers are able to make the right decisions and actions regarding COVID-19.**”
- a) Completely agree
 - b) Somewhat agree
 - c) Neither agree nor disagree
 - d) Somewhat disagree
 - e) Disagree completely
 - f) Not applicable because I don’t have customers or clients.
- 25) I feel that my **employer can make the right decisions and take the right actions regarding COVID-19.**
- a) Completely agree
 - b) Somewhat agree
 - c) Neither agree nor disagree
 - d) Somewhat disagree
 - e) Disagree completely
 - f) Not applicable because I don’t have an employer.

Work-related questions

- 26) Please describe your current job (e.g., “factory worker”, “elementary school teacher”, etc.)
If you have more than one part-time job, enter more than one.
- a) [text entry]
- 27) Approximately how many people work for your company?
- a) 10 people or fewer
 - b) 11 to 100 people
 - c) 101 to 1,000 people
 - d) 1,001 to 5,000 people
 - e) 5,001 or more
- 28) How often do you usually have **close contact with people in your office (co-workers, supervisors, subordinates)** (within 1 meter, 15 minutes or more, in the same space)?
- a) Fewer than one person a week
 - b) About one person a week

- c) A few people a week
- d) A few people a day
- e) More than 10 people a day
- f) N/A

29) How often do you usually have **close contact with your clients and/or customers** (within 1 meter, 15 minutes or more in the same space)?

- a) Fewer than one person a week
- b) About one person a week
- c) A few people a week
- d) A few people a day
- e) More than 10 people a day
- f) Not applicable because I don't have customers or clients.

30) What do you think would happen at work if you were infected with COVID-19?

- a) I would lose my job
- b) I would receive no benefits or income while I was unable to work
- c) I would receive reduced benefits and income while I was unable to work
- d) I would receive full benefits and income while I was unable to work
- e) I don't know

About COVID-19

31) Do you know someone who has been infected with COVID-19?

- a) Yes (direct acquaintance)
- b) Yes (not a direct acquaintance)
- c) None
- d) I don't know

32) How well do the following apply to you?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) I'm worried that I and my family will be infected with COVID-19
- b) I'm worried that food and daily necessities will be out of stock and difficult to obtain
- c) I'm worried about losing income and benefits if I become infected
- d) I worry that I will be discriminated against if I become infected
- e) I am worried about having contact with foreigners because they might have the virus
- f) In the past seven days, I have frequently searched or asked for information about the COVID-19 pandemic
- g) In the past seven days, I have had trouble concentrating or sleeping because of the COVID-19 pandemic

33) Please indicate if you are taking the following measures to control the spread of COVID-19.

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Keep as much distance as possible from people who do not live with me
- b) Wear a mask
- c) Avoid non-essential outings (travel, shopping, etc.)
- d) Take steps to improve ventilation when I am indoors (opening windows, etc.)

- e) Wash and disinfect my hands frequently
- f) Try to stay home when I am sick
- g) Other [if you practice any other measures][text response]

34) To what extent do you consider the following items important in determining your actions?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) Preventing myself from contracting COVID-19
- b) Taking care to prevent people close to me from contracting COVID-19
- c) Preventing the spread of COVID-19 in my community
- d) Resumption of the economy
- e) Follow social norms (e.g., taking the same measures and actions as the majority of other people)
- f) Following the rules of my institution, such as my employer

35) In general, if a person who works in a job that involves customer service is infected with COVID-19, would you agree that it is the fault of the following people or institutions?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) The infected person
- b) The infected person's place of work or employer
- c) Government
- d) Community members/the public
- e) Other [free text]

36) In general, if a person with a job that does not involve customer service is infected with COVID-19, would you agree that it is the fault of the following people or institutions?

For each item on a 5-point scale (Strongly agree to strongly disagree)

- a) The infected person
- b) The infected person's place of work or employer
- c) Government
- d) Community members/the public
- e) Other [free text]

37) Have you ever installed an app other than COCOA as a countermeasure against COVID-19?

- a) No
- b) Yes [please enter app name]