DATA QUALITY - PLEASE DO NOT REMOVE

Screener

Do you own any loyalty cards?

A loyalty card is an identity card issued by a retailer to its customers as part of a consumer incentive scheme, whereby credits are accumulated for future discounts every time a transaction is recorded.

- ○ Yes
- ○ No
- ○ I'm not sure

Do you own any of the following loyalty cards? Please select all that apply

- ☐ Lidl Plus
- ☐ Marks & Spencers Sparks Card

- [ ] Tesco Clubcard
- [ ] Nectar Card
- [ ] Co-op membership card
- [ ] Morrisons More
- [ ] myWaitrose
- [ ] Iceland Bonus Card
- [ ] None of the above

Are you willing to share your loyalty card data for health research by the University of Nottingham?

Loyalty card data includes details of your shopping purchases (where and when you shopped, money spent, and items bought).

- ○ Yes
- ○ No
- ○ I'm not sure

Participant Information

Participant Information Sheet: Shopping patterns during COVID pandemic

We are inviting you to take part in this study that

explores shopping patterns during the COVID pandemic. We want to study if the patterns in people's purchases at the supermarket (e.g., buying paracetamol) are related to patterns in cold and flu like symptoms.

This study will collect information about your shopping history from your Tesco Clubcard, and will ask you to report whether you experienced COVID symptoms. We want to collect answers from those who suffered from COVID and from those who did not have COVID.

What is the purpose of research? Investigating shopping data in relation to the timing of an illness can provide otherwise unavailable understanding of how people manage disease at home - insights that are extremely valuable to help limit the impacts of epidemics such as COVID-19. Analysis will help contribute to both improved tracking of illness across the population and help to develop health interventions.

Before you decide, it is important that you understand why the project is being conducted and what will it involve. Your participation is voluntary, and you may change your mind about being involved at any time, and without giving a reason.

Please take time to read the following information carefully. If you have any questions that are not answered by this information, please contact Elizabeth Dolan (elizabeth.dolan@nottingham.ac.uk, University of Nottingham) who leads this research.

Who is organising and funding the research?

Read Answer

What will happen if I take part?

Read Answer

What information is recorded through your Tesco Online Account or Tesco Clubcard?

Read Answer

Why have I been chosen?

Read Answer

What will happen to the information I provide?

Read Answer

What will happen to the results of the study?

Read Answer

Who has reviewed this study?

Read Answer

Contact details

Researcher: Elizabeth Dolan,
elizabeth.dolan@nottingham.ac.uk
Principal Supervisor: Dr James Goulding,
james.goulding@nottingham.ac.uk
N/LAB, Si Yuan Building
The University of Nottingham
Jubilee Campus
Nottingham
NG8 1BB

Complaint procedure

If you wish to complain about the way in which the research is being conducted or have any concerns about the research, please contact Dr James Goulding on james.goulding@nottingham.ac.uk or the School's Research Ethics Officer: Dr Davide Pero on davide.pero@nottingham.ac.uk

Nottingham University Business School
Jubilee Campus Nottingham

NG8 1BB
Phone: 0115 84 67763

Privacy Notice

Privacy Notice
Privacy information for Research Participants
For information about the University's obligations with respect to your data, who you can get in touch with and your rights as a data subject, please visit: https://www.nottingham.ac.uk/utilities/privacy.aspx

Why we collect your personal data
Read Answer

Legal basis for processing your personal data under UK General Data Protection Regulation (GDPR)
Read Answer

Where the University receives your personal data from
Read Answer

Special category personal data

Read Answer

How we process your data

Read Answer

How long we keep your data

Read Answer

Who we share your data with

Read Answer

Consent Form

Participant Consent Form

By answering yes I confirm that:

- I have read and understood the Participant Information Page, or it has been read to me. I have been able to ask questions about the study and any questions have been answered to my satisfaction.
- I consent voluntarily to be a participant in this study and understand that I can refuse to answer

questions and I can withdraw from the study at any time, without having to give a reason.

- **I understand that that taking part in this study involves sharing shopping history collected through my Tesco Online Account or/and Tesco Clubcard (which will be anonymised) and completing a survey questionnaire.**
- I understand that personal information collected about me that can identify me, such as my name or where I live, will not be shared beyond the study team.
- I give permission for the de-identified (anonymised) data that I provide to be used for future research and learning.

I understand and agree to the above consent statements

- ○ Yes
- ○ No, I do not agree to the above consent statements

I agree to take part in the study

- ○ Yes
- ○ No, I do not agree to take part in this study

Unless I specifically instruct for comments to be off the record, any additional comments I include can be used as anonymised quotes in publications, reports, web pages and other research outputs.

- ○ Yes
- ○ No

Age

What is your age?

Sharing Tesco Data

Share your Tesco Online Account or/and Tesco Clubcard Data

Tesco Online Account and Tesco Clubcard data includes details of your transactions at Tesco (where and when you shopped, money spent, and items

bought). We will remove personal identifying information (your name, address, phone number, store location) from the data on receiving it before storing it securely for our research.

We will now explain how to share your Tesco Clubcard data with the University of Nottingham by making a data request. Make sure you have access to your Clubcard number, and please follow these steps:

1. Visit www.tesco.com
(You will need to have your Tesco Clubcard registered online, if you haven't already you can register your Clubcard using this link https://secure.tesco.com/account/en-GB/register. Remember when registering to select "I already have a Clubcard and I'd like to link my accounts")

2. Go to "My Account" and log in if you aren't already:

- On a computer or laptop, this is by clicking on the "My Account" text in the top right,
- Or on a phone or tablet, tap the blue menu icon on a mobile device (in the top right of the screen).

3. In the section "My Clubcard", click or tap "Clubcards on account". Double-check, if you shop in-store, the card you use when at the shop is listed in under "Your Clubcards". Return to the previous screen "My Account".

4. In the section “My details”, click or tap “Request your Tesco Data”, then the button “Start your request”.

5. On the next page you will be asked to verify your account

- This will send a code to your phone. Copy this code into the verification box on the Tesco Website.
- Or you can verify your account with your Clubcard account number (printed on your Clubcard) by entering requested digits.

6. You will be asked "Where shall we send your data to?", click on the "Third Party" tab.

7. Fill in the requested information as:

- Company name: **University of Nottingham**

- Company email address: **nlab@nottingham.ac.uk**
- Confirm company email address: **nlab@nottingham.ac.uk**
- Your personal email: [enter your email]

8. Confirm you would like to continue and submit data request.

9. You will see a screen with a reference number, e.g. 503900469 **and a verification code**, e.g. 5UH MUO. Please have these numbers available, note them down or copy them into a text document, as you will need to enter them on the following pages to complete the survey.

Quiz

Below are quiz questions to check whether you understood the instructions.

In this study I have been asked to...

- Log in into my Tesco online account (an external website) and request my Tesco Clubcard data to be shared with the University of Nottingham
- Enter my Tesco Clubcard number into the survey
- Write about my shopping experiences at Tesco during the pandemic

During this study, I will have to provide the researchers with...

- Reference number and verification code of my Tesco data sharing request which I have obtained from my online account on the Tesco website
- Information where my closest Tesco shop is
- My date of birth and address so they can request my Tesco shopping data from Tesco

After reading the instructions I understand that as a part of this study, I will...

- Upload my Tesco shopping receipts to the University of Nottingham website
- Allow University of Nottingham researchers to access my Tesco shopping data through a data request
- Download my shopping data from the Tesco website onto my computer, attach it to an email and send to the researchers at the University of Nottingham

Tesco Data Reference Number and Verification Code

Please enter your Tesco data request **reference number**:
(which you have already obtained from your Tesco online account)

Please enter your Tesco data **verification code**:
(which you have already obtained from your Tesco online account)

The N/LAB University of Nottingham research team, will receive an email from Tesco with your reference number. The email will contain a link to where the research team can enter the verification code you have provided in the survey above and download your Tesco shopping data.

If you have any trouble completing these steps and making the data sharing request to Tesco, please contact Elizabeth Dolan and she will be happy to assist you:
elizabeth.dolan@nottingham.ac.uk

Please take note, if the Tesco data request reference number or verification code are entered incorrectly, you will not be able to participate in the study and your survey answers will be declined.

Shopping

Are you the primary shopper (do most of the shopping) in your house?

- I am the primary shopper
- I am not the primary shopper
- Shopping is evenly shared by adults in the house
- Unsure
- Prefer not to say

Which of the following shopping items do you buy from Tesco?

- [ ] Food and drink
- [ ] Medicines
- [ ] Clothes
- [ ] Health and Beauty
- [ ] Homeware
- [ ] Unsure
- [ ] Prefer not to say

If you have any comments to the researchers, please put them in the box below. Otherwise proceed to the next screen.

General Health

Now we will ask you a number of questions about your health, whether you have COVID and/or COVID symptoms and your social circumstances.

Section 1: Your Health. This section is asking about your current health.

In general, in the 3 months before the COVID-19 outbreak in March 2020, would you say your health was...

- ○ Excellent
- ○ Very good
- ○ Good
- ○ Fair
- ○ Poor
- ○ Don't know
- ○ Prefer not to say

Were you contacted by letter or text message to say you are at severe risk from COVID-19 due to an underlying health condition and should be shielding?

- ○ Yes
- ○ No
- ○ Prefer not to say

Are you or do you currently have any of the following? If yes, please tell us exactly what you have:

- ☐ None
- ☐ Prefer not to say

- [ ] Organ transplant recipient
- [ ] Diabetes (Type I or II)
- [ ] Heart disease or heart problems
- [ ] Hypertension (high blood pressure)
- [ ] Overweight
- [ ] A recent stroke
- [ ] Kidney disease
- [ ] Liver disease
- [ ] Anaemia
- [ ] Asthma
- [ ] Other lung condition such as COPD, bronchitis or emphysema
- [ ] Cancer
- [ ] Condition affecting the brain and nerves (e.g. Dementia, Parkinson's, Multiple Sclerosis)
- [ ] A weakened immune system/reduced ability to deal with infections (as a result of a disease or treatment)
- [ ] Depression
- [ ] Anxiety
- [ ] Psychiatric disorder
- [ ] Other

Please tell us the type of condition(s) you have or type prefer not to say.

Please tell us why your immune system is weakened

Do you currently take any regular medication?

- ○ Yes (please tell us what you are taking)
- ○ No
- ○ Prefer not to say

Since the **1st September 2021** to the current date, have you experienced any of the symptoms listed below? Please give a response for every symptom listed in the table. Please complete for any symptoms that were experienced irrespective of whether or not you saw a doctor.

	Yes	No	Don't remember	Prefer not to say
Decrease in appetite	○	○	○	○

Nausea and/or vomiting	○	○	○	○
Diarrhoea	○	○	○	○
Abdominal pain/tummy ache	○	○	○	○
Runny nose	○	○	○	○
Sneezing	○	○	○	○
Blocked nose	○	○	○	○

	Yes	No	Don't remember	Prefer not to say
Sore eyes	○	○	○	○
Loss of sense of smell or taste	○	○	○	○
Sore throat	○	○	○	○
Hoarse voice	○	○	○	○
Headache (if more often or worse than usual)	○	○	○	○
Dizziness	○	○	○	○
NEW Persistent cough	○	○	○	○

	Yes	No	Don't remember	Prefer not to say
Tightness in the chest	○	○	○	○
Chest pain	○	○	○	○

Shortness of breath (affecting normal activities)	○	○	○	○
Fever (feeling too hot)	○	○	○	○
Chills (feeling too cold)	○	○	○	○
Difficulty sleeping	○	○	○	○
Felt more tired than normal	○	○	○	○

	Yes	No	Don't remember	Prefer not to say
Severe fatigue (e.g. inability to get out of bed)	○	○	○	○
Numbness or tingling somewhere in the body	○	○	○	○
Feeling of heaviness in arms or legs	○	○	○	○
Achy muscles	○	○	○	○
Raised, red, itchy areas on the skin	○	○	○	○
Sudden swelling of the face or lips	○	○	○	○
Red/purple sores or blisters on your feet (including toes)	○	○	○	○

If you have any comments to the researchers, please put them in the box below. Otherwise proceed to the next screen.

COVID, long COVID and treatment

Section 2: COVID

This section is asking if you experienced COVID.

Do you think that you currently have or have ever had COVID-19?

- Yes, confirmed by a positive test
- Yes, based on testing for Antibodies prior to vaccination
- Yes, based on medical advice
- Yes, based on strong personal suspicion
- Unsure
- No
- Prefer not to say

Please answer questions about the first time you got (or believe you got) COVID-19

In what month do you think you first got (or might have got) COVID-19? If you do not remember exactly, please put your best estimate

Click to select a month

How accurate would you say your estimated month in which you first got (or might have got) COVID-19 is?

- Definitely that month
- 1 month either side
- 2 months either side
- 3 months either side
- More than 3 months either side

Do you recall the actual date you first got (or might have got) COVID-19? If you do not remember exactly, please put your best estimate

- ○ _____ DD/MM/YYYY
- ○ Don't know
- ○ Prefer not to say

If you tested positive on a lateral flow for COVID-19, do you recall the date of the test? If you do not remember exactly, please put your best estimate

- ○ _____ DD/MM/YYYY
- ○ Don't know
- ○ Prefer not to say
- ○ I did not take a lateral flow test
- ○ I did not test positive on a lateral flow test

If you received a positive PCR test confirming COVID-19, do you recall the date you received your test result? If you do not remember exactly, please put your best estimate

- ○ _____ DD/MM/YYYY
- ○ Don't know
- ○ Prefer not to say
- ○ I did not take a PCR test

- ○ I did not test positive on a PCR test

How confident are you this PCR test result date is correct?

- ○ Not confident at all
- ○ Not very confident
- ○ Fairly confident
- ○ Very confident
- ○ Don't know

We are interested in whether you have experienced any symptoms listed below at the time when you first had COVID. We would like you to answer this even if you believe you had COVID but did not have a positive test. Please give a response for every symptom listed in the table. Please complete for any symptoms that were experienced irrespective of whether or not you saw a doctor.

	Yes	No	Don't remember	Prefer not to say
Decrease in appetite	○	○	○	○
Nausea and/or vomiting	○	○	○	○

Diarrhoea	○	○	○	○
Abdominal pain/tummy ache	○	○	○	○
Runny nose	○	○	○	○
Sneezing	○	○	○	○
Blocked nose	○	○	○	○

	Yes	No	Don't remember	Prefer not to say
Sore eyes	○	○	○	○
Loss of sense of smell or taste	○	○	○	○
Sore throat	○	○	○	○
Hoarse voice	○	○	○	○
Headache (if more often or worse than usual)	○	○	○	○
Dizziness	○	○	○	○
NEW Persistent cough	○	○	○	○

	Yes	No	Don't remember	Prefer not to say
Tightness in the chest	○	○	○	○
Chest pain	○	○	○	○
Shortness of breath (affecting normal activities)	○	○	○	○

Fever (feeling too hot)	○	○	○	○
Chills (feeling too cold)	○	○	○	○
Difficulty sleeping	○	○	○	○
Felt more tired than normal	○	○	○	○

	Yes	No	Don't remember	Prefer not to say
Severe fatigue (e.g. inability to get out of bed)	○	○	○	○
Numbness or tingling somewhere in the body	○	○	○	○
Feeling of heaviness in arms or legs	○	○	○	○
Achy muscles	○	○	○	○
Raised, red, itchy areas on the skin	○	○	○	○
Sudden swelling of the face or lips	○	○	○	○
Red/purple sores or blisters on your feet (including toes)	○	○	○	○

Did you look for any medical help for any symptoms you think may have been caused by COVID-19? We would like you to answer this even if you believe you had

COVID but did not have a positive test. Please select all that apply.

- [ ] Yes – discussed symptoms with doctor/GP/practice nurse
- [ ] Yes – discussed symptoms with NHS 111 in England, Wales and Northern Ireland or NHS 24 in Scotland
- [ ] Yes – accessed online advice at NHS 111 in England, Wales and Northern Ireland or NHS 24 in Scotland
- [ ] Yes – visited pharmacist
- [ ] Yes – visited A&E or walk-in centre
- [ ] No
- [ ] Don't know
- [ ] Prefer not to say

Have you ever had to stay in hospital because of COVID-19 symptoms?

- ○ Yes
- ○ No
- ○ Don't know
- ○ Prefer not to say

How many nights did you stay in hospital? (please provide a rough estimate if you can't remember the exact number)

Did you receive any breathing support during your hospital stay? (please tick all that apply)

- [ ] No
- [ ] Yes, I received oxygen (through an oxygen mask, no pressure applied)]
- [ ] Yes, I received non-invasive ventilation (through a special oxygen mask which pushes oxygen into your lungs, also called CPAP)
- [ ] Yes, I received invasive ventilation (via a tube inserted in the throat. People are usually asleep for this procedure)
- [ ] Prefer not to say

Do you think you have caught COVID-19 more than once?

- ○ Yes, confirmed by a second positive test
- ○ Yes, based on medical advice
- ○ Yes, based on strong personal suspicion
- ○ Unsure
- ○ No
- ○ Prefer not to say

When did you catch COVID-19 the second time? If you

do not remember exactly, please put your best estimate?

- ○ [ ] DD/MM/YYYY
- ○ Don't know
- ○ Prefer not to say

Thinking of your last, or only, episode of COVID-19, have you now recovered to normal?

- ○ Yes, I am back to normal
- ○ No, I still have some or all of my symptoms
- ○ Prefer not to say

How long have you had / did you have COVID-19 symptoms overall. Please include time spent with mild symptoms and the time in between symptoms if these have been coming and going. If you have caught COVID-19 more than once, please answer about the longest episode of illness you experience

- ○ Less than 1 week
- ○ Less than 2 weeks
- ○ 2 – 3 weeks
- ○ 4 – 12 weeks

- ○ More than 12 weeks
- ○ Prefer not to say

How many days were you or have you been so unwell that you stayed in bed or on the sofa?

- ○ None
- ○ 1 – 3 days
- ○ 4 – 6 days
- ○ 7 – 12 days
- ○ 2 – 3 weeks
- ○ 4 – 12 weeks
- ○ 12+ weeks
- ○ Prefer not to say

Did you have any of the following problems 12 weeks (or more) after first catching COVID-19? Please only consider symptoms that are not explained by another reason. Tick all that apply.

- ☐ I was back to my usual self
- ☐ Breathing problems, e.g. breathlessness, pain on breathing, cough
- ☐ Altered sense of taste or smell
- ☐ Problems thinking and communicating e.g., brain-fog, memory problems, difficulty concentrating, decreased alertness, confusion, difficulty speaking

- [ ] Heart problems, e.g. chest pain, palpitation
- [ ] Light-headedness / dizziness on standing
- [ ] Abdominal problems, e.g. tummy pain, diarrhoea, appetite loss
- [ ] Muscle problems, e.g. muscle aches, weakness, severe fatigue
- [ ] Altered feelings in your body, e.g. unusual tingling, pain
- [ ] Problems relating to mood, e.g. anxiety, feeling 'down', or irritable
- [ ] Problems sleeping, e.g. poor sleep or excessive sleep
- [ ] Skin rashes
- [ ] Bone / joint pain
- [ ] Headaches

How much difficulty did you have with the following activities 12 weeks (3 months) after your COVID-19 illness began?

	No difficulty	Mild	Moderate	Severe	Extreme/Unable to do
Standing for long periods, such as 30 minutes?	○	○	○	○	○
Taking care of your household responsibilities?	○	○	○	○	○
Learning a new task, e.g. learning how to get to a new place?	○	○	○	○	○

Joining in community activities (e.g. festivities, religious, other)?	○	○	○	○	○
Being emotionally affected by your health problems?	○	○	○	○	○
Concentrating on doing something for ten minutes?	○	○	○	○	○
Walking a long distance such as 1 kilometre or half a mile?	○	○	○	○	○
Washing your whole body?	○	○	○	○	○
Getting dressed?	○	○	○	○	○
Dealing with people you do not know?	○	○	○	○	○
Maintaining a friendship?	○	○	○	○	○
Your day-to-day work (including paid and unpaid work) / school?	○	○	○	○	○

If you have any comments to the researchers, please put them in the box below. Otherwise proceed to the next screen.

Social circumstances

Section 3: Social circumstances & demographics

This section is asking about your social circumstances and basic characterists.

What is your gender?

- ○ Female
- ○ Male
- ○ Prefer not to say
- ○ Prefer to self describe, please use the text box below to do this

What type of accommodation do you live in?

- ○ House or bungalow
- ○ Flat or apartment

- ○ Hostel
- ○ Mobile home or caravan
- ○ Sheltered house
- ○ Homeless
- ○ [ ] Other, please specify
- ○ Prefer not to say

What UK region do you live in?

Click to select a region [ ]

Do you live with anybody? (If you live with both adults and children please select both boxes)

- ☐ No, I live on my own
- ☐ Yes, I live with at least one other adult. Please specify how many adults (including yourself)

  [ ]
- ☐ Yes, I live with at least one child. Please specify how many children

  [ ]
- ☐ Prefer not to say

How much do you agree with the following statements?

I'm worried about my future financial situation

- ○ Strongly agree
- ○ Agree
- ○ Neither agree nor disagree
- ○ Disagree
- ○ Strongly disagree
- ○ Prefer not to say

Which of the following statements best describes the food eaten in your household in the last week?

- ○ You all always had enough of the kinds of foods you wanted to eat.
- ○ You all had enough to eat, but not always the kinds of food you wanted.
- ○ You sometimes did not have enough to eat.
- ○ You often did not have enough to eat.
- ○ Prefer not to say

You said that you sometimes or often did not have enough to eat. Who in your household was affected?

- ○ Everyone
- ○ Adults only
- ○ Mother only

- Prefer not to say

How often has your household used a food bank, or similar service?

- Never
- Less than four times
- Four times or more
- Prefer not to say

Which of these would you say best described your employment situation now?
(if you are doing more than one of these please choose the activity that you spend most time doing)

- Self-employed and employing others
- Self-employed, not employing others
- Employed and supervising others
- Employed but not supervising others
- Doing voluntary/unpaid work
- Retired
- Permanently sick or disabled
- Looking after home and/or family/dependents
- Unemployed
- Other, please describe

- ○ In education at school/college/university
- ○ Prefer not to say

If you have any comments to the researchers, please put them in the box below. Otherwise proceed to the next screen.

Data donation

Below are a number of statements, which may or may not describe your feelings or your behaviours if you decided to provide your shopping data for research purposes. Please rate how strongly do you agree or disagree with the statements below using the 5-point scale.

I agreed to donate my shopping data for this research project.....

	Strongly		Neither agree nor		Strongly

	disagree	Disagree	disagree	Agree	agree
...because we all have a social responsibility to help stop COVID.	○	○	○	○	○
...because I like to be involved with cutting-edge research projects, that can generate new insights.	○	○	○	○	○
...because it shows to everyone that I am a good and kind person.	○	○	○	○	○
...because it might even help me feel less stressed about my own problems.	○	○	○	○	○
...because I want my data to do good.	○	○	○	○	○
...because I have a responsibility to help other people.	○	○	○	○	○

...because I know my data will be dealt with in a completely secure, anonymised and trusted manner	○	○	○	○	○
...as it can help relieve some of the guilt I feel for being more fortunate than others.	○	○	○	○	○
...because I want my data to be used to help the NHS to react better to pandemics in the future.	○	○	○	○	○
...because we all have a duty to give back to our communities when we can.	○	○	○	○	○

If you have any comments to the researchers, please put them in the box below. Otherwise proceed to the next screen.

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