Happy to Help: Welfare Effects of a Nation-Wide Micro-Volunteering Programme

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### Background & Motivation
- We estimate causal wellbeing returns to volunteering for England’s National Health Service (NHS) Volunteer Responders program.
- In March 2020, NHS and UK Secretary of State for Health issued mass call for volunteers to support vulnerable people shielding at home during Covid-19 lockdown.
- Work included talking to people feeling lonely, running errands for them (e.g. groceries), or helping NHS or local pharmacies with logistics.
- 750,000 volunteers (1.1% of population) registered interest in just 4 days, making it largest volunteer mobilisation in England since World War II.
- Program based on smartphone app with randomisation algorithm that randomly allocates small (‘micro’) tasks from those in need to volunteers.
- We are first to study welfare effects of such a ‘micro-volunteering’ program.

### Data
- Our two data sources are:
  1. Online survey amongst universe of individuals who had signed up and were approved (valid proof of identity) to become Volunteer Responders, including questions on subjective wellbeing (e.g. life satisfaction), individual characteristics, and whether they had already volunteered in program so far, and if not, why not.
  2. Admin data with exact times and locations of randomly allocated tasks, whether they had been completed, and postcode of volunteers’ locations.
- Extensive comparisons of merged data with other, nationally representative panel data in UK (i.e. UCL Covid-19 Social Study, Understanding Society) confirm external validity of estimation sample.
- Observation period from April (start of program) to July 2020 (survey).

### Estimation & Identification

\[ y_i = a + Treatment_i + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + r + d + e_i \]

where Treatment, is dummy that is one if individual volunteered at any point in time (i.e. treatment group), and zero if individual did not volunteer after signing up because no task had been allocated yet (i.e. main control group). \(X_{1i}\) and \(X_{2i}\) are individual and regional Covid-19 (i.e. hospitalisations) controls, \(r\) and \(d\) regional and survey date fixed effects.

- Identification exploits oversubscription of volunteers to program by factor 2.4 and randomisation of task allocation via smartphone app (e.g. for talk services, volunteer picked from national pool, for running errands from nearby pool).
- Completely random or random conditional on regional demand for volunteers.
- No systematic differences in observables between those who had volunteered and those who had not been allocated task yet at time of survey.

### Results

<table>
<thead>
<tr>
<th></th>
<th>Life Satisfaction</th>
<th>Sense of Purpose</th>
<th>Belongingness</th>
<th>Connectedness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment (Volunteered Vs. Not Yet Given Task)</td>
<td>0.1081*** (0.0463)</td>
<td>0.1802*** (0.0473)</td>
<td>0.0414*** (0.0112)</td>
<td>0.0099*** (0.0120)</td>
</tr>
<tr>
<td>Stepdown P-Value (Treatment)</td>
<td>0.0099</td>
<td>0.0099</td>
<td>0.0099</td>
<td>0.0099</td>
</tr>
<tr>
<td>Mean</td>
<td>7.2</td>
<td>7.5</td>
<td>0.7</td>
<td>0.5</td>
</tr>
<tr>
<td>(\alpha)</td>
<td>2.1</td>
<td>2.0</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Individual Controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Regional Covid-19 Controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Region Fixed Effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survey Date Fixed Effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Number of Treated</td>
<td>6,375</td>
<td>6,375</td>
<td>6,375</td>
<td>6,375</td>
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<tr>
<td>Number of Controlled</td>
<td>2,788</td>
<td>2,788</td>
<td>2,788</td>
<td>2,788</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>9,163</td>
<td>9,163</td>
<td>9,163</td>
<td>9,163</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.1395</td>
<td>0.1072</td>
<td>0.0582</td>
<td>0.0467</td>
</tr>
</tbody>
</table>

Notes: *p<0.01, **p<0.05, ***p<0.01, robust standard errors in parentheses.

### Social Welfare Analysis
- Running Volunteer Responders program from April to July 2020 costed about GBP 3.1 million. Was it worth it?
  - 1% increase in household income increases life satisfaction (0-10) by about 0.007 points (Sacks et al., 2010).
  - Median annual gross household income in England during observation period is about GBP 7,400 (ONS, 2020).
  - Trading off effect of volunteering on life satisfaction (+0.17) with that of income (i.e. MRS at median income) yields GBP (74 x 0.17) / 0.007 = GBP 1,800.
  - With about 250,000 active volunteers during observation period, this gives us net social welfare increase of GBP 250,000 x 1,800 - 3,100,000 = GBP 442 million. Lower bound: benefits to those in need not even accounted for.

### Discussion
- Volunteer Responders program is testimony showing how pro-social action can benefit not only its recipients but also those who give.
- Volunteers generate substantial wellbeing benefits for themselves, and these seem to last, at least during observation period.
- From policy perspective, traditional method of including voluntary work in national accounting systems – by multiplying number of volunteering hours with hourly wages in complementary, paid work – may be underestimating true value of volunteering to society, by neglecting private wellbeing returns.
- As benefits strongly outweigh costs, Volunteer Responders program as nationwide micro-volunteering programme could be seen as model to replicate elsewhere, in crises but also during normal times.