REMINDERS TO PROMOTE BEHAVIOURS

INCORPORATING BEHAVIOURAL ADD-ONS INTO CASH TRANSFER PROGRAMMES

BY MARTA GRABOWSKA

The spread of COVID-19 has led to the implementation of financially and psychologically taxing preventative measures. In this document, we provide an overview of how reminders (e.g. SMS, pre-recorded voice messages) can promote adherence to these guidelines by facilitating the formation of the required habits and behaviours. We offer evidence-based guidance on how to design effective reminders, which could be delivered by governments to all citizens or to some groups, such as recipients of social security.

KEY TAKEAWAYS

Reminders could be used to induce behaviour changes needed to combat the spread of the virus, or to maintain behaviour changes over time. Studies in a variety of contexts find well-targeted reminder interventions help to promote adoption of new behaviours and habit formation. For health, reminders have been shown to increase adherence to medicine regimes and getting medical examinations.

Frequency and regularity matter for reminder success. While consistently delivering messages over longer periods of time is better, more frequent (e.g. daily not weekly) messages may not improve outcomes.

Reminders promote behaviour change best when their content is clear and actionable. In the context of COVID-19, it is also important that messages appeal to altruistic attitudes.

Instant communication reminders have many useful features. Policymakers are able to monitor the efficacy of their message and content can easily be adapted going forward.

THE IMPACT OF COVID-19

As governments around the world adopted measures to prevent the spread of the pandemic, they increasingly used reminders to promote the required behaviours. Kenya's Ministry of Health has been sending a free, regular SMS service since early March to discuss the spread of COVID-19 and advice to follow.[1]

[1] Some content of SMS messages has been published by the Ministry of Health at "http://www.health.go.ke/wp-content/uploads/2020/03/SMS-messages-for-COVID-19-04032020.pdf"

Telecom operators in India and Pakistan have sent pre-recorded messages warning about the spread of the virus in coordination with the nations' ministries of health.[2] In South Africa, the government has required mobile network operators to send a minimum of 2 daily messages to combat the virus on behalf of the government.[3] Ensuring such reminders succeed in producing behaviour change is a priority, particularly in countries where capacity for treating patients with the virus is low.

WHAT CAN WE LEARN FROM EXISTING EVIDENCE?

In order to prevent the spread of COVID-19, governments are relying on citizens to follow official advice. However, forming new habits and behaviours, such as frequent hand-washing and keeping a safe distance away from others, requires considerable mental effort from citizens.[4] The stressors associated with the new measures (e.g. isolation or financial instability), which have additional negative psychological consequences (Brooks et al., 2020), further increase the cognitive burden of processing new guidance on behaviour.[5] A review of available evidence suggests that reminder messages can help people form these new behaviours when they regularly reinforce the key messages and urge appropriate actions.

1. EVIDENCE SHOWS THAT REMINDERS HELP PROMOTE BEHAVIOURS

Evidence shows that well-designed reminder campaigns - or reminders attached to existing programmes - can increase rates of behaviour change in a range of policy areas. Examples of such trials are listed in Table 1 and cover behaviours ranging from agricultural production to savings. Focusing on evidence for health-specific outcomes, which are particularly relevant to the current crisis, shows there is a strong body of experimental literature which finds increased take up of healthful behaviours as a result of reminders (de Tolly et al., 2012; Lester et al., 2010; Pop-Eleches et al., 2011). There is also systematic evidence, from both developed and developing settings, of the efficacy of reminders for achieving health outcomes (Tomlinson et al., 2013; Aranda-Jan et al., 2014). Similar reminder programmes could be deployed to promote adoption of behaviours mandated by governments in the current crisis.[6]

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[2] For India: Techcrunch, 8 March 2002, "Operators in India warn people of coronavirus outbreak, share tips." For Pakistan: The Express Tribune, "Pakistanis to hear Covid-19 message instead of ringtone when they call each other"

[3] Business Insider SA. 06 April 2020. "You'll now be getting at least two Covid-19 SMSes a day, plus info on govt announcements."

[4] Forming new behaviours and making them into habits is challenging even in normal times (Lally and Gardner, 2013). However, this is even more challenging in the current circumstances. For many the new regulations come with considerable and immediate costs (e.g. income loss, loneliness), while benefits accrue to others in society (e.g. the long-term ill or the elderly). Reminders can serve to repeatedly reinforce this message to those experiencing only the negative consequences of measures in the short-run (Behrendt and Merriam, 2020).

[5] Financial instability may impede the adoption of new guidelines as the cognitive burden reduces the ability to process new information (Mani et al., 2013). It is particularly important to focus minds on specific messages when the volume of new information is large (Gigerenzer and Gaissmaier, 2011), and when the spread of misinformation blurs official guidelines (Financial Times, 2020).

[6] The governments' health advice could be delivered to everyone, or through new and existing networks, targeting the most vulnerable. Those listed as long-term ill in healthcare system databases or recipients of social security could be reached without the creation of new databases. On the other hand, new measures designed specifically for the crisis (contact tracing apps, social media update channels) also present easy opportunities for reaching people directly.

Table 1 - Research Trials Testing Reminders

Study	Area	Behaviour targeted	Method	Reminder type	Outcome
			Health		
de Tolly et al. (2012)	South Africa	Testing for HIV	RCT; 5 treatment arms are: control (no SMS), information SMS - set of 3 or 10, and message motivating testing, set of 3 or 10	SMS reminders with either information about HIV in South Africa, or a message motivating getting tested for HIV.	Those receiving 10 motivational SMS test 1.7 times more than control (0.01%), and 2.3 times more than those receiving 10 information SMS (5% sig). No change for the 3 SMS groups.
Lester et al (2010)	Kenya	Adherence to antiretroviral therapy	RCT; 2 arms - the SMS intervention or control (standard care)	Weekly SMS reminders from the clinic nurse, need to reply within 48h	Adherence up by 12 points (1% sig, control mean = 50%) and viral suppression up 9 points (5% sig, control mean = 48%)
Pop-Eleches et al. (2011)	Kenya	Adherence to antiretroviral therapy	RCT; 5 treatment arms: the control group (no SMS) and four SMS groups, varying between short and long message and daily and weekly reminder	SMS reminder to take medication	Adherence up by 13 points in 2 groups receiving weekly reminders (5% sig, control mean = 40%). No difference between short and long weekly reminder
			Saving		
Karlan et al. (2016)	Bolivia, Peru, Philippines	Limited attention in savings behaviour	Pool 3 separate RCTs. The comparison of interest is between any treatment and the control group (no reminder)	Reminders sent before scheduled deposit time	Rate of meeting savings target up by 3.2 points (1% sig, control mean = 55%)
			Agriculture		
Casaburi et al. (2014)	Kenya	Agricultural yields	RCT: two treatment arms - a control receiving no SMS and a treatment group, offered the SMS intervention	Regular SMS providing tailored farming advice	Smallholder farmers increased yields by 11.5% relative to the control group (control mean = 41.63 tonnes/hectare)

2. REMINDER WORK BEST WHEN THEY DELIVER A CLEAR, ACTIONABLE AND ALTRUISTIC MESSAGE ON A REGULAR BASIS

For reminders to successfully promote behaviour change, they need to be designed specifically to the context and circumstances they operate in. Reminder interventions can vary: the delivery medium (SMS, Interactive Voice Response), frequency, and the amount of information provided can all be adjusted to maximise efficacy. Evaluation of evidence to date points to increased effectiveness of reminders when there is a follow-up, when the message is personally tailored to the recipient, and when the frequency, wording, and content are highly relevant (Cole-Lewis and Kershaw, 2010). In this section we outline how to design reminder interventions using this body of evidence for guidance.

Frequency

Evidence shows that it is very important to deliver reminders at the appropriate frequency to increase behaviour adoption. Each message carries an additional cost,[7] so from a policy perspective it is very important to consider carefully the regularity of messages sent.

[7] An SMS with 160 characters costs around 5 cents in much of the world (Groot, B. and Sanders, M., 2018)

Based on the evidence, we can propose that:

- **Regular reminders over a longer period of time** (e.g. a month instead of a week) with a follow-up component are more conducive to behaviour change (de Tolly et al., 2012; Tomlinson et al., 2013).
- Some evidence shows **weekly** reminders may be more effective at causing behaviour change than daily ones (Pop-Eleches et al., 2011; Lester et al., 2010)
- These authors suggest that the type of reminder is key for determining frequency: weekly reminders are enough (or even better than daily) for reinforcing the **purpose** of actions[8]

Content

Varying the content of the message can have a large impact on behaviour. Guidance from practitioners and systematic evidence points to successful reminders as:

- Being clear, concise and informative (Behrendt and Merriam, 2020; Brooks et al., 2020)
- Motivating specific, purposeful actions (de Tolly et al., 2012; Behrendt and Merriam, 2020; World Bank, 2015)
- Establishing a collective narrative and appealing to altruism (Swidler, 2009; Brooks et al., 2020)

When designing policies which incorporate reminders, evidence and practitioner guidelines

3. MONITORING REMINDERS MOVING FORWARD

recommend piloting and iterating designs to achieve the desired outcomes (World Bank, 2015). An experimental design may be unrealistic in this context (e.g. rigorous piloting), but messages delivered via SMS or online provide opportunity for checking how they are being received. Asking a subsample of recipients for feedback, or simply checking the rates of recipients choosing to opt out of receiving messages, can provide an idea of message efficacy.

Recent examples of such strategies include the design of SMS reminders sent by the NHS to patients seen as most vulnerable to COVID-19 in the UK. The design team collected feedback from recipients on the frequency and quantity of messages sent and whether the content of messages was helpful (Burd and Coleman, 2020). By using SMS, the team was able to cheaply and frequently implement the feedback received, adapting the content of messages if required.

[8] Although we do not have conclusive evidence, some practitioners suggest that reminders sent to help absorb large amounts of information work well on a daily basis (Burd and Coleman, 2020).

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