

# A centralised novel coronavirus telephone helpline: a tool for managing and tracking the nation's response to the COVID-19 epidemic in Slovenia

Osrednji klicni center za informacije o novem koronavirusu: orodje za obvladovanje in spremljanje odziva prebivalk in prebivalcev Slovenije med epidemijo covida-19

Kevin Pelicon,<sup>1</sup> Ivana Krajnc,<sup>1</sup> Klemen Petek,<sup>1</sup> Mojca Matičič<sup>2</sup>

#### <sup>1</sup> Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia <sup>2</sup> Department of Infectious Diseases and Febrile Illnesses, University Medical Centre Ljubljana, Ljubljana, Slovenia

#### Correspondence/ Korespondenca:

Mojca Matičič, e: mojca. maticic@kclj.si

#### Key words:

SARS-CoV-2 pandemic; information dissemination; call centre; crisis management; public health

#### Ključne besede:

pandemija virusa SARS-CoV-2; diseminacija informacij; klicni center; krizno upravljanje; javno zdravje

Received: 2. 7. 2020 Accepted: 4. 11. 2020

#### **Abstract**

In response to neighbouring Italy's accelerating outbreak of the coronavirus disease 2019 (COVID-19), Slovenia established a national toll-free telephone helpline, which operated from 9 March until 12 June 2020 and answered more than 40 thousand calls in its first ten weeks alone. It was operated by medical students and integrated professionals from diverse fields in order to provide trustworthy, accurate, and understandable information to the citizens of Slovenia. We examine the impact that this centralised helpline had on managing the COVID-19 health crisis by shaping and monitoring the public's response.

#### Izvleček

Centralni klicni center za informacije o novem koronavirusu je bil v Sloveniji ustanovljen na nacionalni ravni kot odziv na izbruh v sosednji Italiji. Deloval je od 9. marca do 12. junija 2020. Samo v prvih desetih tednih delovanja so svetovalci odgovorili na več kot 40.000 klicev. Državljanom so v klicnem centru svetovali študentje medicine s podporo strokovnjakov z različnih področij, s čimer je bila zagotovljena verodostojnost, točnost in razumljivost posredovanih informacij. V prispevku proučujemo vlogo osrednjega klicnega centra pri obvladovanju epidemije covida-19 in spremljanju odziva prebivalk in prebivalcev Slovenije na uveljavljene ukrepe za preprečevanje širjenja okužbe z novim koronavirusom.

**Cite as/Citirajte kot:** Pelicon K, Krajnc I, Petek K, Matičič M. A centralised novel coronavirus telephone helpline: a tool for managing and tracking the nation's response to the COVID-19 epidemic in Slovenia. Zdrav Vestn. 2020;89(11–12):702–9.

**DOI:** https://doi.org/10.6016/ZdravVestn.3126



Copyright (c) 2020 Slovenian Medical Journal. This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.



#### 1 Introduction

In response to the outbreak of the coronavirus disease 2019 (COVID-19) in neighbouring Italy, one of Europe's epicentres at the time (1,2), Slovenia rapidly prepared to fight not only the disease itself but the ensuing »infodemic« of factual inaccuracies and misinformation, which according to the WHO are just as dangerous (3). Particularly in times of healthcare crises, the citizens' perception of risk determines their response and adherence to public health guidelines and recommendations. Scientific evidence in academic literature does not necessarily translate to the broader public's understanding. To bridge this gap and to trigger the widespread adjustment in behaviour that was needed to curb the spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), it was essential for the public to be given understandable, accurate, trustworthy, and timely information that was tailored to their needs and circumstances and was delivered sympathetically and compassionately (4,5).

Five days after the first case of COVID-19 was confirmed in Slovenia and with 31 reported cases altogether (6), the country established a national toll-free coronavirus telephone helpline, which operated from 9 March until 12 June 2020. It worked alongside other previously established communication channels, such as that of the Ministry of Foreign Affairs, the National Institute of Public Health, and others, all with the common goal of providing the country's two-million population with reliable and up-to-date information. We examine the first two months of its operation from 9 March to 15 May 2020 and argue that the centralized call centre, which was unique in Slovenia, played a significant role in

observing the public's response and thus in successfully managing the COVID-19 epidemic in the country.

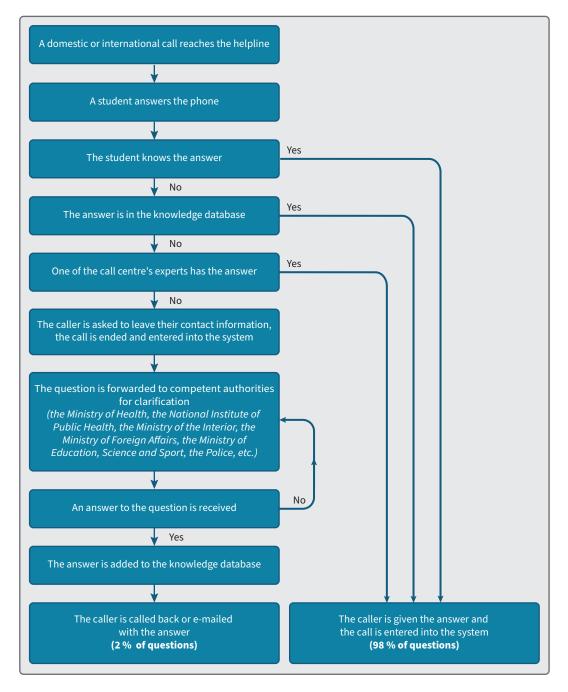
# 2 Unique structure and a multidisciplinary team

The coronavirus call centre was founded by the Government Communication Office of the Republic of Slovenia in cooperation with the Clinic for Infectious Diseases and Febrile Illnesses of the University Medical Centre Ljubljana, the National Institute of Public Health, the Ministry of Health and the Ministry of Public Administration. It operated seven days a week, from 8 a.m. to 8 p.m., and was available at a toll-free domestic and an international phone number (7). The call centre was heavily promoted at press conferences, in media outlets, and on the Internet, where it was prominently featured.

To ensure competent responses to what were expected to be medical questions, students of the Faculty of Medicine of the University of Ljubljana were invited to participate as call centre advisers. Of the 189 who responded, 66 were chosen. Eventually, it turned out most effective to further reduce the number of students to a core team of predominantly senior-year ones, who worked best in the team, had flexible schedules, were highly motivated, and had already passed courses in infectious diseases, public health, and psychiatry. The students underwent intensive training on COVID-19 itself, communication skills, phone etiquette, confidentiality practices, consular services for travellers and citizens abroad, and received an extensive knowledge database from which they could source answers. Prior to

starting work in the call centre, students also completed multiple simulated calls with scenarios such as threatening, insulting, anxious, and crying callers. They were also trained in the use of technical equipment and received instructions on logging calls into the system.

The aim of the helpline was to create a one-stop-shop for citizens with questions on the COVID-19 pandemic, so according to best practice, the call centre welcomed experts from various fields and institutions (8). This meant that the students could permanently consult with



**Figure 1:** The protocol for answering questions and obtaining answers in the national coronavirus call centre during the COVID-19 epidemic in Slovenia, 2020.

specialists of infectious diseases, public health professionals, and psychiatrists, as well as representatives of the Ministry of Foreign Affairs and Civil Protection Services. Furthermore, experts from the Ministry of the Interior, the Ministry of Education, Science and Sport, the Labour Inspectorate, as well as others were available on demand. In anticipation of questions regarding newly introduced governmental measures and public health guidelines, additional institutions were asked to contribute and the configuration of the call centre's team was dynamically adjusted. To guarantee consistency among advisers and to ensure they were acquainted with current events and new legislation, the team received daily or even hourly briefings.

# 3 A proactive approach

The call centre was unique in that it took a proactive approach to solving individual callers' problems. The advisers did not only passively relay information. Instead, they actively engaged in finding solutions with the expert consultants on-site, sought answers from various decision-makers and stakeholders, alerted them to ambiguities in legislation, and integrated these inputs to provide citizens with reliable and understandable answers. The knowledge database was continuously updated with information the call centre received from third parties, such as the Ministry of Foreign Affairs, the National Institute of Public Health, the Ministry of the Interior and others, as well as by the experts themselves (Figure 1).

The efficacy of such a model of a centralised helpline is perhaps best demonstrated by the fact that the multidisciplinary team of experts and advisers was able to resolve 98% of queries on the

spot, while only the remaining two percent were forwarded to competent authorities for further clarification. Callers were also actively encouraged to submit suggestions and initiatives which were later aggregated by the call centre staff and forwarded to legislators for consideration. In fact, many callers' initiatives were even included in new legislative measures (9). Such an ongoing proactive communication between the call centre, the public, and decision-makers brought about an additional role of the call centre: it became an important tool for observing the public's response to new mitigation measures in terms of determining key areas of concern and for assessing where further clarification was needed.

# 4 Analysis of the calls

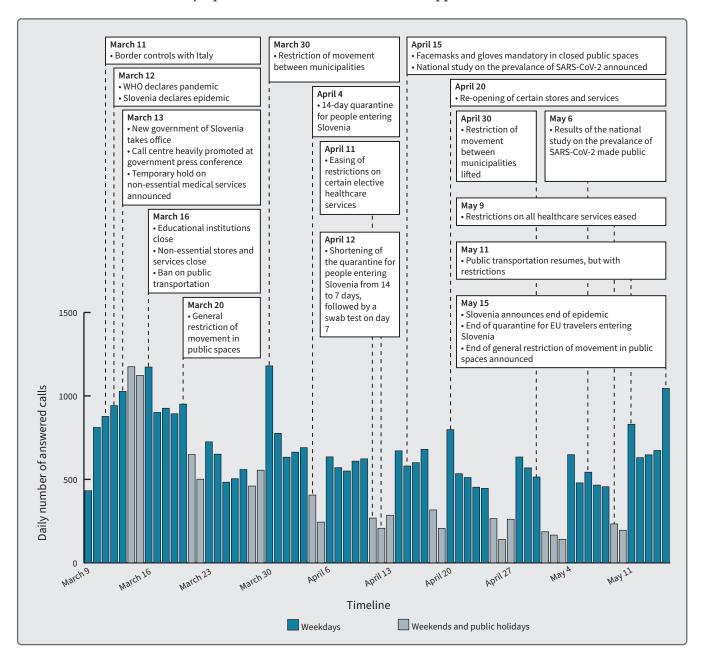
We examined the data from 9 March, when the call centre began to operate, until 15 May 2020, when Slovenia announced an end to the COVID-19 epidemic. The following week, starting with 18 May 2020, the call centre's business hours were reduced to only weekdays between 8 a.m. and 4 p.m. The helpline ceased to operate after 14 weeks, on 12 June 2020.

By 15 May 2020, the helpline advisers had already answered a total of 40 174 calls. On an average weekday, this translated to 685 calls daily, while on weekends and public holidays the average number of answered calls was 380 (Figure 2). The longest call lasted for one hour and 29 minutes. The number of advisers was adjusted daily, based on the expected number of calls and considering fluctuations between weekdays and weekends, imminent or recent public health announcements, legislative action, and promotion of the helpline in

the media.

The content of the calls changed in accordance with the progression of the epidemic and governmental restrictions (Figure 3). Initially, a considerable proportion of callers sought medical advice with questions about COVID-19 signs and symptoms, viral transmission, and

preventive measures. However, this initial surge likely coincided with the ongoing season of other upper respiratory tract infections, which are common in March, making it difficult to distinguish them from the new coronavirus infection (11). In subsequent weeks, it became apparent that citizens became more edu-



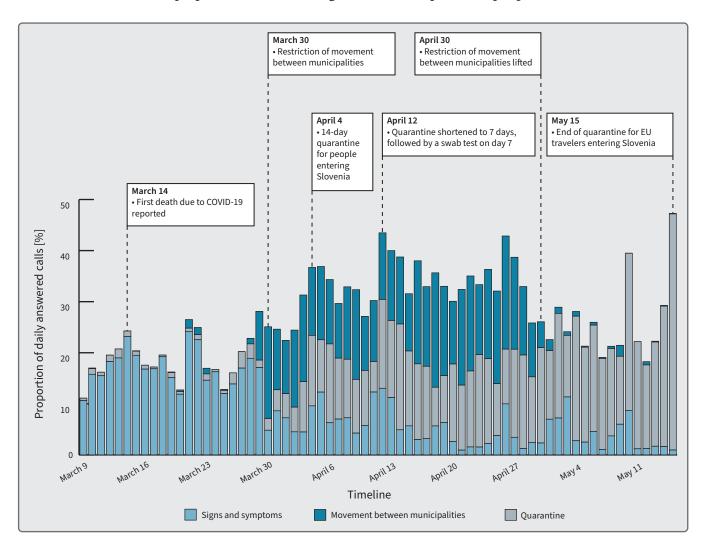
**Figure 2:** The daily number of answered calls by the national coronavirus helpline and important milestones (10) during the COVID-19 epidemic in Slovenia, 2020 (n= 40 174).

Data source: the Government Communication Office of the Republic of Slovenia. Permission for data use obtained.

cated about COVID-19 and became less likely to call about unrelated symptoms. As Slovenia introduced tighter restrictions towards the end of March 2020, the focus of the queries shifted to mitigation measures such as quarantine and restrictions on public movement. On 30 March 2020, when the government banned travel between municipalities, a decision unprecedented since the 1972 smallpox epidemic in former Yugoslavia (12), the helpline represented one of the first points of contact for shocked and unprepared citizens seeking reassurance

and help. A similar trend could be seen later, when the epidemiological situation in Slovenia stabilised to the point where the country could announce an end to the COVID-19 epidemic and ease border restrictions and quarantine procedures for people entering the country on 15 May 2020 (10,13).

Throughout the helpline's operation, a variety of social and welfare issues were raised by callers and became more apparent as the epidemic progressed. Indeed, the national call centre became a place for people in distress to seek not



**Figure 3:** The daily proportion of answered calls by the national coronavirus helpline for three common topics in accordance with relevant milestones (6,10) during the COVID-19 epidemic in Slovenia, 2020 (n = 40 174). Data source: the Government Communication Office of the Republic of Slovenia. Permission for data use obtained.

only information but also assistance. The psychological and psychiatric support that was available on the spot to callers, as well as to advisers and experts, was thus an invaluable part of the operation.

As the country entered a post-epidemic period and with some measures still in place, the call centre continued to operate until 12 June 2020. Besides aggressive testing, contact tracing, and physical distancing, which proved essential in limiting the spread of COVID-19 in Slovenia (14), informing and listening to citizens' needs proved to be a powerful tool as well.

### **5 Conclusion**

To the best of our knowledge, this is the first report of such a centralised model of a helpline in Slovenia. Since its inception, it has become nationally recognised for providing accurate and reliable information in an effective and sympathetic manner. Moreover, it worked proactively and helped the government in shaping its coronavirus response by offering an insight into the citizens' needs and concerns. The decision to invite medical students as helpline advisers during the COVID-19 pandemic and to support them with expert consultants

from various fields surpassed all expectations.

Based on Slovenia's good practice, we propose that other countries implement a similar model for managing future public health crises such as a possible new surge in SARS-CoV-2 infections. When developing a crisis response system, a centralised, easily accessible, toll-free, and well-promoted telephone helpline for providing reliable and trustworthy information given by competent advisers in cooperation with various experts and supported by psychologists and psychiatrists, should be established. Seeking answers and solutions by facilitating effective communication between the public and stakeholders and providing feedback to decision-makers for planning further measures became an integral supporting mechanism for other response activities.

The authors believe that the role of centralised call centres as a response mechanism to public health crises should be further investigated. A robust model of a helpline can encourage appropriate awareness, but more research is needed to assess to what degree a one-stop-shop helpline can shape the public's response and increase adherence to governmental mitigation measures.

# References

- 1. World Health Organization. Coronavirus disease 2019 (COVID-19). Situation Report 61. Geneva: WHO; 2020 [cited 2020 Jun 20]. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200321-sitrep-61-covid-19.pdf?sfvrsn=6aa18912 2.
- Remuzzi A, Remuzzi G. COVID-19 and Italy: what next? Lancet. 2020;395(10231):1225-8. DOI: 10.1016/S0140-6736(20)30627-9 PMID: 32178769
- 3. World Health Organization. Munich Securiy Conference; 15 February 2020. Geneva: WHO; 2020 [cited 2020 Jun 20]. Available from: https://www.who.int/dg/speeches/detail/munich-security-conference/.
- 4. Nicoll A. Planning for uncertainty: a European approach to informing responses to the severity of influenza epidemics and pandemics. Bull World Health Organ. 2011;89(7):542-4. DOI: 10.2471/BLT.11.089508 PMID: 21734773
- 5. Bavel JJV, Baicker K, Boggio PS, Capraro V, Cichocka A, Cikara M, et al. Using social and behavioural science to support COVID-19 pandemic response. Nat Hum Behav. 2020;4(5):460-71. DOI: 10.1038/s41562-020-0884-z PMID: 32355299

- 6. National Institut for Health. Daily tracking of SARS-CoV-2 (COVID-19) infections. Ljubljana: NIJZ; 2020 [cited 2020 Jun 20]. Available from: https://www.nijz.si/sl/dnevno-spremljanje-okuzb-s-sars-cov-2-covid-19.
- 7. Government Communication Office. The Government coronavirus call centre. Ljubljana: UKOM; 2020 [cited 2020 Jun 20]. Available from: https://www.gov.si/en/news/2020-04-06-the-government-coronavirus-call-centre.
- 8. Stark C, Christie P, Marr AC. Run an emergency helpline. BMJ. 1994;309(6946):44-5. DOI: 10.1136/bmj.309.6946.44 PMID: 8044070
- 9. Matičič M. Klicni center za informacije o koronavirusu barometer dogajanja med ljudmi. Ljubljana: STA; 2020 [cited 2020 Sep 14]. Available from: https://www.sta.si/2749350/maticiceva-klicni-center-za-informacije-o-koronavirusu-barometer-dogajanja-med-ljudmi.
- 10. The Official Gazette of the Republic of Slovenia. Ljubljana: Uradni list; 2020 [cited 2020 Jun 20]. Available from: https://www.uradni-list.si/.
- 11. Moriyama M, Hugentobler WJ, Iwasaki A. Seasonality of Respiratory Viral Infections. Annu Rev Virol. 2020;7(1):83-101. DOI: 10.1146/annurev-virology-012420-022445 PMID: 32196426
- 12. Ilic M, Ilic I. The last major outbreak of smallpox (Yugoslavia, 1972): The importance of historical reminders. Travel Med Infect Dis. 2017;17:69-70. DOI: 10.1016/j.tmaid.2017.05.010 PMID: 28545976
- 13. Government Communication Office. Slovenia declares the end of COVID-19 epidemic; no quarantine for EU citizens from today. Ljubljana: UKOM; 2020 [cited 2020 Jun 20]. Available from: https://www.gov.si/en/news/2020-05-15-slovenia-declares-the-end-of-covid-19-epidemic-no-quarantine-for-eu-citizens-from-today.
- 14. Manevski D, Pohar Perme M, Blagus R. Estimation of the reproductive number and the outbreak size of SARS-CoV-2 in Slovenia. Zdrav Vestn. 2020;89(1-2):1-11. DOI: 10.6016/ZdravVestn.3068