

# Pandemija COVID-19 kroz prizmu poziva kol centru

Tatjana M. Egić

Dom zdravlja "Novi Sad", Opšta medicina, Srbija

Rad nije deo nijednog projekta

## Sažetak

**Uvod.** U periodu od 14. marta do 04. maja 2020. god pri Skupštini grada Novog Sada funkcionisao je pozivni telefonski centar (u daljem tekstu kol centar). Dežurala su četiri lekara opšte medicine Doma zdravlja "Novi Sad" radi pružanja građanima informacija i odgovora na sva pitanja u vezi sa zdravstvenim aspektom COVID-19 pandemije.

**Cilj rada.** Prikazati strukturu pitanja postavljenih dežurnim lekarima tokom rada kol centra.

**Metod.** Retrospektivna analiza poziva na jednoj telefonskoj liniji, u jednoj sedmočasovnoj smeni tokom 36 radnih dana.

**Rezultati i diskusija:** Analizirano je 757 pitanja koja su klasifikovana u 14 kategorija poziva:

1. Povišena temperatura i tegobe koje se mogu povezati sa COVID-19, 165 (21,80%).
2. Zdravstvene tegobe koje nisu povezane sa COVID-19, 134 (17,70%).
3. Socijalni problemi koji su nastali nakon uvođenja zabrane kretanja za starije od 65 godina i policijskog časa, 68 (8,98%).
4. Mere izolacije, 67 (8,85%).
5. Odlasci na kontrolne preglede, 61 (8,06%).
6. Problemi sa nabavkom namirnica i lekova, 46 (6,08%).
7. Zabrane kretanja, 44 (5,81%).
8. Nabavke i korišćenje zaštitne opreme i dezinfekcionih sredstava, 20 (2,64%).
9. Testiranja 12 (1,59%).
10. Odlasci, tj. neodlasci na posao 11 (1,45%).
11. Psihološki problemi, 9 (1,19%).
12. Pritužbe na radne organizacije, 6 (0,79%).
13. Pitanja koja nisu mogla biti svrstana ni u jednu od prethodno navedenih grupa, 89 (11,76%).
14. Pozivi iz drugih opština, 25 (3,30%), što je zanimljivo.

**Zaključak:** U ranoj fazi pandemije dežurni lekari su pomagali u rešavanju različitih, ne samo zdravstvenih, problema sa kojima su se građani suočavali. Ostali su prva linija kontakta sa zdravstvenim sistemom, pokazujući da je primarna zdravstvena zaštita segment zdravstvenog sistema koji je u svim situacijama uvek dostupan.

**Ključne reči:** pandemija COVID-19, kol centar, organizacija, primarna zdravstvena zaštita

# COVID-19 pandemic through the prism of call center contacts

Tatjana M. Egić

Primary Healthcare Center "Novi Sad", General medicine, Serbia

This paper isn't a part of any other project.

## Abstract

**Introduction.** From March 14<sup>th</sup> to May 04<sup>th</sup>, 2022, there had been a call center in the Town Hall of Novog Sada (further call center). There were four general physicians (GPs) from Primary Healthcare Center "Novi Sad" on-call, and they gave information and answers to the questions asked by the citizens about the COVID-19 pandemic.

**Objective.** We aimed at presenting the structure of the questions we asked on-call GPs in the call center.

**Method.** Retrospective analysis of the phone calls, on one phone line, in one seven-hour shift, during 36 working days.

**Results and discussion:** We analyzed 757 questions, classified into 14 call categories:

1. Fever and health issues that might be connected to COVID-19, 165 (21,80%).
2. Health issues not connected to COVID-19, 134 (17,70%).
3. Social problems that occurred after the going out ban for those over 65, and curfew, 68 (8,98%).
4. Isolation measures, 67 (8,85%).
5. Going to follow up health checks, 61 (8,06%).
6. Problems buying food and drugs, 46 (6,08%).
7. Going out ban, 44 (5,81%).
8. Buying and using PPE and disinfectants, 20 (2,64%).
9. Testing, 12 (1,59%).
10. Going or rather not going to work, 11 (1,45%).
11. Psychological problems, 9 (1,19%).
12. Complaints of work organizations, 6 (0,79%).
13. Questions that couldn't be cataloged in any of the previously mentioned categories, 89 (11,76%).
14. Calls from other counties, 25 (3,30%), which was interesting.

**Conclusion:** In the early phase of the pandemic on-call GPs helped citizens solve different problems, even non-health ones. They remained the first line of contact with the health system, showing that primary health care, as a part of the health system, is always available.

**Keywords:** COVID-19 pandemic, call center, organization, primary healthcare

## Uvod

Do tada nepoznat koronavirus, kasnije nazvan *teški akutni respiratorni sindrom koronavirus 2 (SARS-CoV-2)*, prvi put je otkriven u Vuhanu, Kina decembra 2019. godine<sup>1</sup>. U Republici Srbiji je prvi slučaj *COVID-19* registrovan 06.03.2020. godine. Zbog vrlo brzog širenja *SARS-CoV-2* virusa celim svetom, 11. marta 2020. Svetska zdravstvena organizacija proglasila je *COVID-19* pandemiju<sup>2</sup>. U momentu izbijanja pandemije, zbog velike stope širenja virusa i nedostatka dostupnih efikasnih terapija ili vakcina, vlasti većine zemalja odlučuju se na prevenciju socijalnim distanciranjem, što uključuje i smanjenje kontakta pacijenata sa institucijama zdravstvene zaštite<sup>3</sup>. U takvim okolnostima već 14.03.2020., na inicijativu gradonačelnika Novog Sada, pri Skupštini grada počeo je sa radom kol centar u kome je bilo angažovano četiri lekara opšte medicine Doma zdravlja "Novi Sad"<sup>3</sup>. Osnovni cilj ovako formiranog kol centra bio je da građanima pruže valjane informacije na pitanja u vezi sa zdravstvenim stanjem. Kol centar je funkcionisao u periodu od 14.03.2020. do 04.05.2020. godine sa dve telefonske linije koje su bile dostupne radnim danima od 08h do 22h i subotom od 08h do 15h. Pored ovog kol centra, od 25.03.2020. u Domu zdravlja "Novi Sad" formiran je još jedan kol centar sa ukupno 16 linija, od kojih su na dve linije dežurali psiholozi, i koji je građanima bio na usluzi 24 časa.

## Cilj rada

Cilj ovog rada je da prikaže strukturu pitanja postavljanih dežurnim lekarima opšte medicine tokom rada kol centra formiranog u Skupštini grada.

## Metod

Retrospektivna analiza poziva na jednoj telefonskoj liniji, u jednoj sedmočasovnoj smeni tokom 36 radnih dana.

## Rezultati

Analizirana su 757 pitanja dobijena kroz isti broj poziva i koja su za potrebe ovog rada klasifikovana u 14 kategorija.

Prvu grupu činila su pitanja u vezi sa povišenom temperaturom i drugim zdravstvenim tegobama koje se mogu povezati sa COVID-19. Iz ove grupe bilo je ukupno 165 (21,80%) poziva.

U drugoj grupi bilo je 134 (17,70%) pitanja u vezi sa zdravstvenim tegobama koje se ne mogu povezati sa COVID-19, odnosno tegobama koje su povezane s drugim bolestima.

## Introduction

Previously unknown coronavirus, later called *severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)*, was first spotted in Wuhan, China, in December 2019.<sup>1</sup> In the Republic of Serbia, the first case of the *COVID-19* was registered March 06<sup>th</sup>, 2020. Due to the *SARS-CoV-2* virus fast spreading worldwide, on March 11<sup>th</sup>, 2020 World Health Organization declared the *COVID-19* pandemic<sup>2</sup>. At the moment of the pandemic outbreak, due to the high prevalence of the virus spreading and the lack of available efficient therapy or vaccine, the authorities of many countries decided on preventive measures, such as social distancing, including less patient contact with healthcare institutions<sup>3</sup>. Under such circumstances, on March 14<sup>th</sup>, 2020, at the initiative of the "Novi Sad" Mayor, a Call center was put into work in the city Town Hall. There were four GPs from Primary Healthcare Center Novi Sad<sup>3</sup>. The main aim of this Call center was to give citizens valid information on health issues. The Call center worked from March 14<sup>th</sup>, 2020 to May 04<sup>th</sup>, 2020, with two phone lines available on workdays, from 08h to 22h, and on Saturdays from 08h to 15h. Besides this one, from March 25<sup>th</sup>, 2021, one more Call center was formed in PHC "Novi Sad", with a total of 16 phone lines. There were psychologists on the two of these lines, and they were available 24 hours.

## Objective

We aimed at presenting the structure of the questions we asked on-call GPs in the Call center, formed in the city Town Hall.

## Method

Retrospective analysis of the phone calls, on one phone line, in one seven-hour shift, during 36 working days.

## Results

We analyzed 757 questions, asked in as many phone calls, classified into 14 call categories, for the purpose of this research.

The first group of questions was about fever and other health issues which might be in connection with COVID-19. There were a total of 165 (21,80%) calls from this group.

There were 134 (17,70%) questions in the second group, concerning health issues that couldn't be connected to the *COVID-19*, or better said, symptoms connected to other diseases.

U treću grupu svrstana su pitanja u vezi sa socijalnim problemima koji su nastali nakon uvođenja zabrane kretanja za starije od 65 godina i policijskog časa, poput nemogućnosti obilazaka starijih članova porodice, a o kojima su brinule druge osobe i same starije od 65 godina, nemogućnost podizanja penzije i slično. U ovoj grupi bilo je ukupno 68 (8,98%) pitanja.

Četvrta grupa pitanja odnosila se na mere izolacije i samoizolacije, a obuhvatala je nedoumice oko načina sprovođenja samoizolacije, trajanja samoizolacije do prijavljivanja komšija ili članova porodice koji se ne pridržavaju propisanih mera. Pitanja u vezi sa ovom temom bilo je 67 (8,85%).

Peta grupa pitanja odnosila se na odlaske, tačnije nemogućnosti odlazaka na kontrolne preglede, zamene katetera, kontrole INR-a i slično, ukupno 61 (8,06 %).

Šestu grupu činila su pitanja u vezi sa organizacijom nabavke namirnica i lekova, ukupno 46 (6,08%).

U vezi zabrane kretanja, nevezano za mere izolacije i samoizolacije, bilo je 44 (5,81%) pitanja. Najveći broj ovih poziva predstavljale su, zapravo, žalbe na nemogućnost izlaska iz stana, napuštanje grada, briga o životinjama koje se nalaze na drugom posedu...

Ukupno 20 (2,64%) poziva odnosilo se na probleme sa nabavkom zaštitne opreme i dezinfekcionih sredstava, pri čemu su pozivali kako građani, tako i predstavnici stambenih zajednica.

U vezi testiranja bilo je 12 (1,59%) pitanja, dok je 11 (1,45%) poziva bilo u vezi odlaska, tj. neodlaska na posao.

Zbog psiholoških problema bilo je 9 (1,19%) poziva, od kojih se najveći broj odnosio na usamljenost i nemogućnost viđanja sa porodicom.

Zbog pritužbi na radne organizacije, tačnije na neodgovarajuću primenu propisanih mera zaštite, bilo je 6 (0,79%) poziva.

U grupu razno 89 (11,76%) pitanja nije moglo biti svrstano ni u jednu od prethodnih grupa.

Posebna zanimljivost bilo je 25 (3,30%) poziva iz drugih opština.

The third group consisted of the questions concerning social problems occurring after the going out ban for persons over 65 and curfew. Some of them were inability to call on the elder family members who were taken care of by other older persons, also over 65, inability to collect their pension from the bank and such. There were a total of 68 (8,98%) questions in this group.

The fourth group of questions concerned the isolation measures and self-isolation, and it included all the dilemmas about the ways of isolation, isolation duration, to reporting neighbors or family members who didn't follow the recommended measures. There were 67 (8,85%) questions on this topic.

The fifth group of questions concerned follow-up visits, or better said inability to do those visits, change of catheters, INR checks, and such, which made a total of 61 (8,06 %) questions.

The sixth group was the questions about the organization of food and medications buying, a total of 46 (6,08%).

There were 44 (5,81%) questions about the going out ban, irrespective of isolation and self-isolation. The majority of those calls were really complaints about not being able to go out, leave town, and take care of the animals that were kept elsewhere.

A total of 20 (2,64%) calls were about getting PPE and disinfectants, and the calls were from the citizens but also from the representatives of building units.

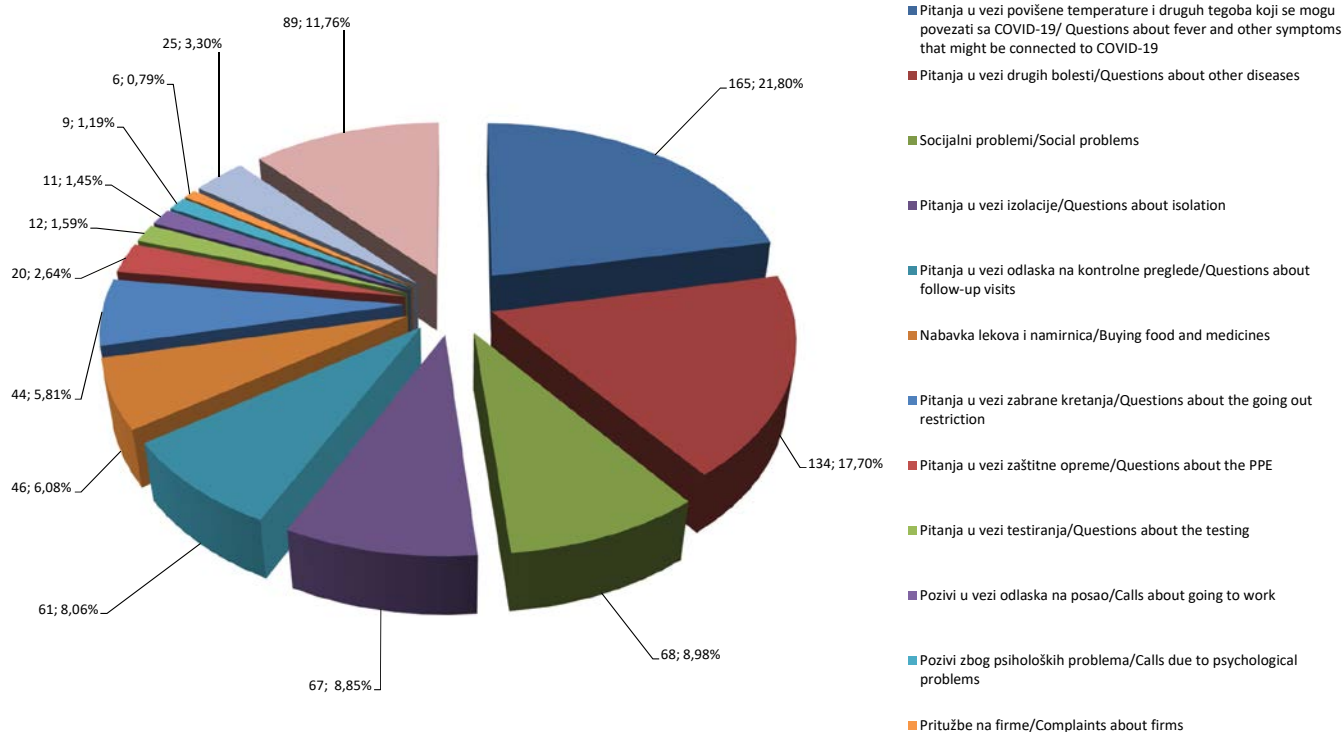
There were 12 (1,59%) questions about the testing, while 11 (1,45%) calls were about going or not going to work.

There were 9 (1,19%) calls due to psychological problems, and the majority of them concerning loneliness and inability to see family members.

Some complained of their working organizations or more precisely inappropriate implementation of protective measures. There were 6 (0,79%) calls about this matter.

There were 89 (11,76%) questions from the group *other* that we couldn't classify into any of the previous groups.

Very interesting entity were questions from other countries 25 (3,30%).



**Grafikon 1.** Struktura pitanja postavljenih tokom poziva kol centru

**Figure 1.** Structure of the asked questions from the call center

## Diskusija

Telemedicinu definišemo kao upotrebu elektronske, digitalne, internetske ili telefonske komunikacije za direktnu brigu o pacijentima<sup>4</sup>. Pokretanje kol centra radi omogućavanja građanima Novog Sada da pravovremeno dobiju informacije na pitanja u vezi sa zdravstvenim stanjem, možemo smatrati korakom ka telemedicini. U uslovima pandemije, telemedicina pomaže u očuvanju zdravstvenih resursa, poput lične zaštitne opreme, omogućava sigurnu i visokokvalitetnu brigu o pacijentima i održava socijalnu distancu kako bi se smanjilo širenje virusa<sup>5</sup>.

U metaanalizi objavljenoj 2020. godine, u kojoj je analizirano preko 2.000 članaka tokom epidemije COVID-19, ljudi su najviše bili zabrinuti zbog simptoma (64,2%), epidemijske situacije i javnih problema (14,5%), te psiholoških problema (10,3%)<sup>6</sup>. Ovi rezultati se razlikuju od onih dobijenih u analizi poziva upućenih našem kol centru u kome se oko 40% postavljenih pitanja odnosilo direktno na zdravstvene probleme: 8% pitanja bilo je u vezi sa nemogućnošću odlaska na kontrolne preglede, a oko 50% činila su pitanja iz domena

## Discussion

Telemedicine is defined as the use of electronic, digital, internet, or phone communication as direct means of care for the patient<sup>4</sup>. The founding of the call center to enable Novi Sad citizens to get timely information about health issues may be considered a step toward telemedicine. During the pandemic, telemedicine helps save health resources, like personal protection equipment, ensures safe and high-quality care for patients, and keeps social distance in order to reduce viral spreading<sup>5</sup>.

A meta-analysis published in 2020, reviewed over 2.000 articles during the COVID-19 pandemic and found people were mostly worried about symptoms (64,2%), epidemiological situation, public problems (14,5%), also psychological problems (10,3%)<sup>6</sup>. These results defer from those obtained from call analysis from our call center. About 40% of the questions were directly about health issues: 8% of the questions were about the inability to go to follow-up visits, and about 50% were from social security domain, isolation measures, and self-isolation. Only 1,19% of questions

socijalne zaštite, mera izolacije i samoizolacije. Svega 1,19% pitanja odnosilo se na psihološke probleme tokom izolacije. S obzirom na to da je nedugo nakon kol centra pri Skupštini grada formiran i kol centar u Domu zdravlja "Novi Sad", koji je građanima bio na usluzi 24h. Pretpostavka je da su građani sa zdravstvenim i psihološkim tegobama u većoj meri pozivali ovaj kol centar, a da su u vezi drugih problema pozivali kol centar u Skupštini grada.

Da primarna zdravstvena zaštita ostaje kamen temeljac odgovora na pandemiju i da se pokazala vrlo prilagodljivom u ispunjavanju jedinstvenih zahteva koji su se javili tokom pandemije, pokazalo je internet istraživanje Globalnog foruma o univerzalnoj zdravstvenoj pokrivenosti i primarnoj zdravstvenoj zaštiti<sup>7</sup>.

## Zaključak

Iako je kol centar oformnjen radi pružanja informacije na pitanja u vezi sa zdravstvenim stanjem tokom COVID-19 pandemije, dežurni lekari opšte medicine su pomagali i u rešavanju različitih problema iz domena socijalne zaštite i drugih problema sa kojima su se građani suočavali. Zdravstveni radnici i zdravstveni saradnici zaposleni u primarnoj zdravstvenoj zaštiti su i kroz rad kol centra ostali prva linija kontakta pacijenata sa zdravstvenim sistemom u ovoj ranoj fazi pandemije, koja se odlikovala nedostatkom informacija, zaštitne opreme i dezinfekcionih sredstava, ograničavanjem kretanja i komunikacije. Time je još jednom pokazano da je primarna zdravstvena zaštita odlučujući segment zdravstvenog sistema koji je u svim situacijama uvek dostupan. Imajući u vidu sve navedeno, nameće se neophodnost većeg ulaganja u opštu medicinu i primarnu zdravstvenu zaštitu.

referred to psychological problems during the isolation. In regards to this, soon after the initiation of the call center in the Town Hall, the other one was founded in the PHC Novi Sad. This one was at citizens' disposal 24/7. We presume the citizens called the PHC call center more in regards to health and psychological problems, and the Town Hall center about other problems.

The internet research of the Global Forum about universal healthcare coverage and primary healthcare showed PHC remains the cornerstone of the pandemic response, and it proved to be very resilient in fulfilling unique requests that occurred during the pandemic<sup>7</sup>.

## Conclusion

Although the Call center was founded<sup>2</sup> for the sake of giving information on health issues during the COVID-19 pandemic, on-call GPs helped solve a variety of problems from the domain of social security and other problems that citizens encountered. Healthcare workers and associates in primary healthcare, working in the Call center, remained the frontline contact between patients and the health system in the early days of the pandemic. These early days were distinctive for the lack of information, PPE, disinfectants, going out, and communication limitations. This showed, once more, that primary healthcare is the decisive part of the health system, always available in all situations. Taking into consideration all of the above, it implies the necessity to invest more in general medicine and primary healthcare.

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