The use of blogs as health management supporting tool at the local level

Luiz Felipe Pinto ¹ Cristianne Maria Famer Rocha ² Camila Luzia Mallmann ²

> Abstract In public health, blogs as data communication and dissemination tools have been widely used since the mid-2010s. This study aimed to describe the implementation of the blog tool by the Family Health Teams (ESF) of the municipality of Rio de Janeiro, which received the support of a Network of Local Observatories of the Municipal Health Secretariat, as a health communication and information vehicle for managers, health professionals and the population of Rio de Janeiro. We opted for a qualitative, descriptive and exploratory approach, with data and information collected directly from the media objects, as well as the literature review. Concerning total access to blogs of the Family Health Clinics and Municipal Health Centers, a total of almost seven million views were achieved. Finally, it should be emphasized that initiatives such as the ESF blogs' network should increasingly be analyzed, disseminated and known to understand, among other factors, the propensity of users, workers, and managers regarding the availability of channels of interaction and communication between them, their scope and their significance. After all, the power of a network is directly related to how it is being used.

> **Key words** Health communication, Social network, Primary Health Care

¹ Departamento de Medicina de Familia e Comunidade, Faculdade de Medicina, Universidade Federal do Rio de Janeiro. R. Laura de Araújo 36/20, Cidade Nova. 20211-170, Rio de Janeiro RJ Brasil. felipepinto.rio2016@ gmail.com

² Escola de Enfermagem, Universidade Federal do Rio Grande do Sul. Porto Alegre RS Brasil.

Introduction

Blogs have been widely used since the mid-2010 as communication and data dissemination tools in the area of health. As an example of the use of this social network, the Brazilian Ministry of Health established in 2012 a specific channel to dialogue with society¹. According to the *Portal da Saúde* (Health Portal)² website, this blog – which is updated daily – aims to inform the population about actions, programs and campaigns and the agenda of the Ministry of Health, as well as show guidelines on how to take care of health. The blog has a space geared to share citizens' experiences with the Brazilian Unified Health System (SUS), which are understood as one of the ways of qualifying SUS services.

In the social sphere, the use of blogs is an idea-sharing tool, and a means to interconnect comments about related ideas, promoting somehow networking between readers and followers³. It also helps to build critical, creative, analytical, intuitive, associative and analogical thinking that enhances access to quality information that produces interaction between individuals and the social sphere.

It should be borne in mind that, for the process of acceptance of technological tools, it is necessary to analyze several aspects that influence their adoption/rejection in a society, such as local culture, rules and norms, political leadership, and social and economic factors⁴. Thus, the analysis of the social system is vital to understand how adopting an innovative tool such as the use of blogs will take place, which at a possible level can become useful as a communicative tendency and strategy that, when intensified, can produce the potential of raising awareness and fundraising, even more so because of its affordability, flexibility and facilitated access⁵.

Thus, the use of Information and Communication Technologies (ICT) has been a significant advance for several sectors, among them health, which has benefited from the possibility of new forms of health care. Although the use of these technologies for this purpose is recent, one can find some works that show the repercussion of this subject on the field. The primary uses of the Internet are the possibility of exchanging experiences between subjects with similar life situations, the feasibility of the debate between professionals and users, allowing improved quality of life, as well as the growth of autonomy, proactivity, and self-confidence, which provide subsidies for coping with daily adversities⁶.

The use of blogs for Public Health has been shown to be a fast way to inform, share, exchange experiences, and can be a conducive space for mobilization that generates partnerships for actions that involve the community of specific territorial space. Also, it can serve to construct new thoughts, collect health surveillance data, understandings and perceptions concerning individual and collective health issues.

When it comes to the specific use of the blog, the way of disseminating this social media can be directly through its electronic address on the Internet or through a Portal or Network, such as the so-called "Health Observatories". These are understood as of paramount importance at local, municipal and sub-municipal levels. The Public Health Observatories are defined as:

[...] besides being analysis centers, they are also evident structures of communication within (informing/supporting/evaluating decision-making and intervention, namely at the local level) and outside the health sector (making health advocacy and influencing public policies with the greatest impact on health)⁷.

One of the possibilities highlighted by this author refers to the leading role of its creation. In her analysis, she emphasizes that they can be conceived as the result of a strategic decision of the principal manager of a governmental instance, totally or partially financed by the government⁷. When they are established locally, they work in an articulated way with "networking" and a joint work plan. They allow to observe and analyze in a critical, continuous and systematic way the development of health status indicators of a population in general or a specific subpopulation, gathering, for this purpose, multidisciplinary teams and theme-specific experts with the purpose of identifying and analyzing realities, contexts, facts, and processes.

According to some authors⁸, blog tools:

are a new source of training and information in health [...]. In any case, it is always convenient to make this reality a weighted internal analysis of this new form of information on the Internet (with its weaknesses and strengths) and also an external analysis of its role in the health environment (with its strengths and, of course, its threats)⁸.

In Brazil, one of the first authors to bring this multifaceted approach of blogs⁹ proposes the possibility of its use for a set of realms to monitor a health system or service, from the micro to the macro of a geographic space: census tract, micro-area of a Family Health Team, neighborhood, district, municipality; in short, any locoregion of interest. These demographic, socioeconomic, mortality, morbidity and risk factors, coverage, resources (physical, human and financial) – realms can be instrumented in qualification cards¹⁰ that would facilitate the understanding and interpretation of limits and potential for each health indicator. Approaches may be longitudinal or cross-sectional.

Thus, this work aims to show and describe the implementation of the network of local observatories by the Municipal Health Secretariat of Rio de Janeiro, within the scope of the use of the blog tool as a communication and health information vehicle by ESFs for managers, health professionals, the population of Rio de Janeiro and other interested parties, highlighting the categories that were considered in a Blog Contest held in 2013, which led to the winner of the main prize, the "Felippe Cardoso Family Clinic", located in the outskirts of the municipality¹¹.

Methodology

From the methodological viewpoint, the research on media objects or environments may require the use of different theoretical and methodological strategies, whether quantitative or qualitative. Among the possible strategies, in this work, we opted for a qualitative, descriptive and exploratory approach, with the collection of data and information directly from the media objects, in addition to the literature review. Such collection allowed us to describe the objects as they appear to the researchers, without having sought information from blog users or those who built them.

Concerning the qualitative research in the digital space, some authors¹² indicate that they can be developed through e-mail or web, having as advantages the possibility of access to data of multiple factors, small or nonexistent geographical restriction, wide audience with which to communicate, in addition to reducing costs in relation to other types of research.

Our preferred methodological course was the literature review, with which we could collect the materials found on the topic of blog use in the social and health spheres, seeking to establish a dialogue of our study with these realms¹³. Next, we sought to collect epidemiological data that could show the regional context in which the experience of the use of blogs by the Family Health Teams took place, with the support of the Network of Observatory of Health Services Information Technologies of Rio de Janeiro (OTICS-RIO

Network). Finally, a description of the evaluation criteria of each category was carried out, which led the winning blog to the main prize of the "Rio de Janeiro Best Family Health Blog Contest" in 2013, with the understanding that this winning blog shows characteristics that serve as a model for the use of this tool as a communicative space within the health sphere and adequate for the construction of dialogues between Family Health Teams and users and that, therefore, could be an experience to be replicated in other Family Health Teams in Brazil.

Results

The Network of Observatory of Health Services Stations of the Planning Areas of the City of Rio de Janeiro

The Network of Stations "Observatory of Health Services Information Technologies of Rio de Janeiro" (OTICS-RIO) is a partnership between the Municipal Health Secretariat of Rio de Janeiro (SMS-RJ) and several academic institutions. The Network's vision is "to be the reference of the SUS Rio de Janeiro to the strategic projects of training, extension and network support of the Subsecretariat for Primary Health Care, Surveillance and Health Promotion (SUBPAV)"14. Its mission is to "promote integration among the actions of extension and health education of the primary health care, health surveillance and promotion services and, in particular, support the network actions of the Family Health Support Centers (NASF)"14. Its values are "real-time information, interactivity, professionalism, simplicity, transparency, network solidarity, innovation, focus on results"14.

The Network consists of seventeen Stations divided across the ten Planning Areas of the city of Rio de Janeiro that support several activities in the units of Primary Health Care facilities – notably Municipal Health Centers and Family Clinics. Thus, Stations are structured according to the regionalization proposed by the municipality, which includes a clear area for each area and health establishment.

The OTICS-RIO Network of Stations proposes, based on available methodologies and information technologies, to promote shared knowledge among students, health professionals, teachers, researchers, managers and civil society in Rio de Janeiro, with a training space and highlighting the support and training provid-

ed to health professionals in workshops for the construction and maintenance of Family Health Teams blogs, as well as audiovisual production, in workshops for the elaboration of short videos and use of imaging technologies¹⁵.

The districts or health management in the SMS-RJ where the stations are located are called "Health Planning Areas" (AP), the primary determination of which is to account for the 160 existing districts, grouping them in ten APs. Support for the management of primary and secondary care, health surveillance and promotion is the primary function of APs.

The municipality of Rio de Janeiro has 6.5 million inhabitants, in an area of 1,225 km², with 160 neighborhoods and a population density of 1,224.56 inhabitants/km². There are significant geographical disparities and concentration of people in the so-called "City's South Zone", shown in Table 1 by AP 2.1, with a density of 14,169.9 inhabitants/km² ¹⁵. Regarding the use of the blog tool, all the approximately 200 Primary Health Care (PHC) facilities with Family Health had an active blog in December 2016¹⁶.

Use of blogs in the integration process between primary care, health surveillance and health promotion

According to Table 2, 860 Family Health Teams, 346 Oral Health Teams, 194 primary health care facilities (Municipal Health Centers and Family Clinics) were active in the city of Rio de Janeiro in June 2015^{14,17}.

Concerning access to the Family Health Clinics' blogs, a total of almost seven million hits were recorded up to the first half of June 2015 – when

the analysis of this paper began – which were of the set of blogs that portray the daily life of the 194 health facilities. There were over two million hits in the set of blogs that belong to the seventeen Stations of the OTICS-RIO Network. There is no data on the type of audience accessing the blogs; however, the number of views shows that one already has a wide range of views and contacts with this tool.

The Stations visit the health units and receive in their physical facilities the health professionals to participate in Workshops of elaboration of blogs, video editing, and health territorialization. Chart 1 shows the 17 stations that contain the set of blogs hosted by the OTICS-RIO portal, with its planning area, CNES number, start date and e-mail address. The name given to each of the stations corresponds to the neighborhoods where they are crowded next to a Municipal Health Unit. Access to Stations' blogs provides information on their respective Family Health blogs and epidemiological data, courses, strategic actions, videos, downloads and the daily routine of the Family Health Teams, as well as other data.

Rio de Janeiro Family Health Blogs' Contest

A pioneer in the implementation of an integrated network of blogs for Family Health Teams in Brazil, the Municipal Health Secretariat of Rio de Janeiro created in 2011 a contest for the award of the best Family Health blogs that would report on the daily routine of health professionals in interaction with users and the community. Since then, three competitions have been held to reward the health facilities with the best performance in the various categories analyzed. The

Table 1. Number of neighborhoods, an area in Km2, resident population and demographic density of the Municipality of Rio de Janeiro, Brazil, 2015.

Selected variables	AP 1.0	AP 2.1	AP 2.2	AP 3.1	AP 3.2	AP 3.3	AP 4.0	AP 5.1	AP 5.2	AP 5.3	Total
Nº of districts	15	18	7	28	23	29	19	10	8	3	160
Area (in km2)	34,4	45,27	55,17	85,36	41,24	76,9	293,78	122,36	306,02	164,08	1.224,56
Resident population	311 265	641 441	372 962	898 787	571 935	947 981	1 011 946	676 139	700 834	394 152	6 527 441
Demographic density (inhab/km2).	9 048,4	14 169,9	6 760,7	10 529,8	13 870,0	12 327,6	3 444,5	5 525,9	2 290,2	2 402,1	5330,4

Source: Population of Planning Areas estimated from the IPP/RJ Municipality, "Resident population and estimated Brazil, State of RJ and Administrative Regions of the Municipality of RJ - 2000/2010 / 2013-2016 / 2020", available at: http://www.armazemdedados.rio.rj.gov.br/arquivos/3261_pop_res_est_mrj_2020.xlsx.

Table 2. Number of Family Health Teams, Oral Health Teams, primary health care facilities, active blogs and access to blogs by health planning areas, Rio de Janeiro, Brazil, 2015.

Selected variables	AP 1.0	AP 2.1	AP 2.2	AP 3.1	AP 3.2	AP 3.3	AP 4.0	AP 5.1	AP 5.2	AP 5.3	Total
N° of ESF	48	53	29	141	80	114	39	120	122	144	860
No of ESB	13	17	7	58	28	48	12	44	46	73	346
Nº of health	14	12	9	28	19	24	13	23	29	23	194
facilities											
N° of accesses to health facilities' blog	309 303	846 810	167 235	1 302492	445 447	1 005 732	629 724	982 975	639 654	575 909	6 905 281
Nº of accesses to Observatory Stations' blog.	157 713	300 397	185 869	928 284	205 148	293 036	316 872	460 249	91 902	187 066	2 139 679

 $Source: CNES/Ministry\ of\ Health\ in\ June\ 2015\ and\ OTICS-RIO/SMS-RJ\ Network, available\ at:\ http://redeoticsrio.org/.$

Chart 1. Stations of the Observatory Network according to Health Planning areas of the Municipal Health Department of Rio de Janeiro – 2016.

Nº	AP	Nº in the CNES	Network's Station	Station's start date	Electronic address
1	1.0	7243707	Centro	27/01/2012	http://oticscentro.blogspot.com.br/
2	1.0	7455380	Cidade Nova	10/12/2013	http://otics-cidadenova.blogspot.com.br/
3	2.1	7243715	Catete	29/09/2012	http://otics-catete.blogspot.com.br/
4	2.1	7243723	Rocinha	27/07/2010	http://oticsrocinha.blogspot.com.br/
5	2.1	9023046	Copacabana	09/07/2016	http://oticscopacabana.blogspot.com.br/
6	2.2	7243731	Tijuca	18/10/2010	http://oticstijuca.blogspot.com.br/
7	3.1	7243758	Jardim América	22/10/2010	http://otics-jardimamerica.blogspot.com.br/
8	3.1	7243766	Penha	16/04/2011	http://otics-penha.blogspot.com.br/
9	3.1	7258356	Manguinhos	09/09/2011	http://oticsmanguinhos.blogspot.com.br/
10	3.2	7243774	Lins de Vasconcellos	30/07/2010	http://oticslins.blogspot.com.br/
11	3.3	7243782	Irajá	10/12/2010	http://otics-iraja.blogspot.com.br/
12	3.3	7243790	Madureira	08/12/2012	http://oticsmadureira.blogspot.com.br/
13	4.0	7243820	Barra da Tijuca	27/07/2010	http://oticsbarra.blogspot.com.br/
14	5.1	7243839	Bangu	28/07/2010	http://otics-bangu.blogspot.com.br/
15	5.1	7243847	Padre Miguel	29/01/2011	http://oticspadremiguel.blogspot.com.br/
16	5.2	7243855	Pedra de Guaratiba	28/07/2010	http://oticspedraguaratiba.blogspot.com.br/
17	5.3	7243863	Santa Cruz	18/10/2010	http://oticssantacruz.blogspot.com.br/

 $Source: OTICS-RIO/SMS-RJ\ Network\ and\ CNES/DATASUS/\ Ministry\ of\ Health,\ available\ at:\ http://redeoticsrio.org/.\ Access\ on\ December\ 15,\ 2016.$

 $\label{eq:cness} CNES = National \ Registry \ of \ Health \ Facilities, available \ at: \ http://cnes2.datasus.gov.br/Mod_Ind_Unidade_Listar. \\ asp?VTipo=50&VListar=1&VEstado=33&VMun=330455&VSubUni=&VComp=00 \ . \ Access \ on \ December \ 15, 2016.$

contest aims to "1 – evaluate the blogs of PHC facilities with a Family Health Strategy model of the Municipality of Rio de Janeiro and establish

awards according to pre-defined categories; 2 – facilitate the dissemination of documents, texts, music, photos, films and videos for the general

Chart 2. Description and judging method of the editorial categories submitted in the Call for Proposals for "Best Family Health Blog-2013", and analysis of the blog of the Felippe Cardoso Family Clinic (CFFC).

Category	Description	Analysis
01	Best real-time agenda available	The team should submit an updated "Google" agenda. In the CFFC, for the tagging by the blog, the registered users must fill out a questionnaire containing the full name, date of birth, contact telephone number, place of residence, reference team and the reason for the appointment (health problem). Healthcare professionals supervise the information, and as soon as the appointment is scheduled, ACS contacts the users.
02	How do I do	Blogs should show the description of a health activity (with photos, videos, songs) performed by the team's professionals. The CFFC submitted the construction of a group created from the demand brought by users of the facility's territory. The successful experience led to the implementation of the "Global Therapy Group", which introduced the theme of "taking care of those who care", providing the exchange of conversations between professionals, family, and users.
03	Youth leadership	It proposes that the blog submits activities to promote youth leadership, with joint participation of team professionals. The blog showed images of an activity carried out with a child and youth group, based on a playful methodology moderated by team professionals.
04	Better audiovisual coverage	It reviewed the audio-visual items on the blog (images and videos via YouTube and a maximum of ten minutes) that portrayed the work processes, internal and external events. The blog featured several videos on the blog as a whole.
05	School Health	Its purpose is to describe activities carried out by health and education professionals, showing the partnership in the actions carried out with the school audience. The CFFC blog showed a specific link describing activities carried out in partnership between education and health, bringing images of the professionals/teachers/students involved, of the integration, of the activities produced at the meeting.
90	Best Picture	It proposes to choose the best image that illustrates the team's work process. Photos to be evaluated must contain a minimum resolution of five megapixels.
07	Know this story told by a Community Health Worker (ACS)	It requests that one experience with a final resolution be told and narrated by an ACS. The story must contain a title, ACS name, and its email. The CFFC blog featured two stories told by ACS, both containing images with the story's characters. The user's name has been preserved, using fictitious names. The stories show exciting outcomes and the commitment of professionals to users' quality of life.
80	Best short video	It requires the blog to have a YouTube account linked to the blog, which sends the video link with a maximum 10-minute length.
60	Physical Activity	It assesses the best description of the work process involving physical education and team members. It is possible to compete in this category either with or without the Academia Carioca ("Rio de Janeiro Gym"). The CFFC blog brings an activity developed for users with chronic pain, setting a group mediated by physiotherapist, physical educator, resident physicians and students of medicine and ACS.
10	Best content	It addresses the importance of a clear wording, with easy access, the diversity of content, as well as the organization and quantity of photos and videos. In the CFFC blog, this aspect follows the model provided by the contest, and they always describe pictures/videos/compulsory items.
11	Greatest interactivity and creativity	It evaluates in a qualitative and quantitative way the comments made in the blog that denote themes about the facility, also with innovative proposals created for interaction with the users. The blog showed few comments in the course of the items, despite the large number of views (about 300 thousand in the making of this paper), the interaction via web still does not occur regularly.
12	Teaching-service- community integration	It intends to show activities that facilitate teaching-service access in the territory. The blog showed the video of a meeting held, providing a written report. Also, it brought images and reports of seminars, supporting activities, supervisions, trainings, specialization and undergraduate courses.

it continues

Chart 2. Description and judging method of the editorial categories submitted in the Call for Proposals for "Best Family Health Blog-2013", and analysis of the blog of the Felippe Cardoso Family Clinic (CFFC)

Best Facility with Best Facility with Best Pacility with health surveillance and promotion. The blog shows the description of an award received by the unit between Family Health and Health	Category	Description	Analysis
Health and Health Surveillance Best Facility with Sheet A (*) Best CAP Territory Best CAP Territory Best CAP Territory It evaluates the quality of the territor-area and by ACS via another link. Best blog/ It thoroughly evaluates each o homepage ("overall achievement").	13	Better integration	It proposes the integration of the facility's actions with health surveillance and promotion. The blog shows the description of an award received by the unit
Health and Health Surveillance Best Facility with Sheet A (*) Best CAP Territory It evaluates the quality of the particle o		between Family	in recognition of its concern with surveillance issues, with photos, images and videos of this moment.
Surveillance Best Facility with Sheet A (*) Best CAP Territory by Micro-area Best blog/ It thoroughly evaluates each o homepage ("overall achievement").		Health and Health	
Best Facility with Sheet A (*) Best CAP Territory by Micro-area and by ACS via another link. Best blog/ It thoroughly evaluates each o homepage ("overall achievement").		Surveillance	
Sheet A (*) Best CAP Territory It evaluates the quality of the by Micro-area and by ACS via another link. Best blog/ It thoroughly evaluates each o homepage ("overall achievement").	14	Best Facility with	It evaluates the quality of the completion of the mandatory fields in Sheet A defined by SMS-RJ.
Best CAP Territory by Micro-area territorialization. The CFFC's and by ACS via another link. Best blog/ homepage ("overall achievement").		Sheet A (*)	
by Micro-area territorialization. The CFFC's and by ACS via another link. Best blog/ It thoroughly evaluates each o homepage ("overall achievement").	15	Best CAP Territory	It evaluates the quality of the maps by micro-area of the facilities, with territorial criteria with better distribution, delimitation, cartography, and
Best blog/ homepage ("overall achievement").		by Micro-area	territorialization. The CFFC's blog shows a specific link, which facilitates access to the defined territory of the facility, the distribution of the teams by color
Best blog/ homepage ("overall achievement").			and by ACS via another link.
homepage ("overall achievement").	16	Best blog/	It thoroughly evaluates each of the competing blogs considering the criteria mentioned previously, as well as their innovations.
achievement").		homepage ("overall	
		achievement").	

(*) "Sheet A" is the primary population registration form, which is under the responsibility of community health workers.

population, health professionals, SUS managers and educational institutions; and, 3 – align the minimum editorials to facilitate blogs' navigability and relevance as a public utility for their target audience – users of SUBPAV establishments" ¹⁸.

Each blog/homepage must have minimal content to participate in the contest, since the purpose of the contest is also to qualify and make relevant this medium of communication, as well as produce a practice of continuous creation, maintenance, and improvement of blogs. The sixteen categories of analysis were created from the minimum content requested, which show both qualitative issues, since the quality of the images, videos, stories, essays and others is evaluated, and quantitative issues, since larger quantities are required one in terms of number of stories, images, videos shown and other content.

In order to facilitate the evaluation process, it was compulsory to create a specific link that generated the page for each of the pre-established categories, which after the registration period is evaluated by jurors that are represented by professionals from the municipality of Rio de Janeiro, academic institutions, organized civil society and other institutions chosen by the organizing committee.

In the process of creating/maintaining blogs, in addition to the technical group of the Stations that provided support for the elaboration of the blogs, the units could access an "example" blog¹⁹ that contained all the minimum contents, as well as the categories of the contest and the explanation of what they represented for the correct assessment in the Blog Contest process.

In 2013, the big winner in the "best blog the overall achievement" category was the blog of the Felippe Cardoso Family Clinic (CFFC)¹¹. This win does not denote that the CFFC blog was the best evaluated in all the pre-established categories since there are smaller awards for blogs that stand out in the other categories; instead, it reveals that it received good marks in the overall result of the contest and categories.

For the evaluation process of the contest, blogs are classified into sixteen categories, and the main prize of the contest is assigned to the blog with the best evaluation in the category "Overall achievement". Regarding the categories, each blog is evaluated by three people who generate a score of 05 to 10, and at the end, the mean is calculated by category of awards. The categories made available in the invitation to register for the competition held in 2013 were: 1 – Best real-time agenda available; 2 – How do I do; 3 – Youth leadership; 4

– Better audiovisual coverage; 5 – School Health; 6 – Best Picture; 7 – Know this story told by a Community Health Worker (ACS); 8 – Best short video; 9 – Physical Activity; 10 – Best content; 11 – Greatest interactivity and creativity; 12 – Teaching-service-community integration; 13 – Better integration between Family Health and Health Surveillance; 14 – Best Facility with Sheet A; 15 – Best CAP Territory by Micro-area; 16 – Best blog / homepage ("overall achievement").

The criterion for choosing the homepage to be evaluated and described in this paper was using the blog winner of the last contest of the Family Health blogs of the City of Rio de Janeiro. Chart 2 summarizes the description and analysis, following the editorials/categories presented by the competition invitation of the CFFC blog.

Debating and reflecting on the communication process in blogs in primary health care

Blogs are the oldest form of social media, appearing among the most popular media, allowing interaction between people and community building^{20,21}. They also allow the sharing of information and communication between peers, between institutions and their public, especially the public of adolescents and young people who were born in the digital era.

Other countries have also reported using the blog tool to disseminate information. Herrera-Usagre et al.²² emphasize that *a good part of Spanish society is predisposed to using channels of interaction and medical-patient communication over the internet*. This shows that there are possibilities for health care beyond face-to-face contact, but this does not exclude the need for it at any time.

The experience of implementing a blog network within the Family Health Teams in the city of Rio de Janeiro evidenced an excellent potential for real-time communication in the daily life of health workers. The coordination team of the OTICS-Rio Network was invited by the Brazilian Society of Family and Community Medicine to organize workshops at the Brazilian Congresses of Belém (2013) and Gramado (2014)^{23,24}, multiplying the experience for dozens of municipalities of all regions, which shows the enormous replication potential of the experience reported in the Brazilian context.

Given the facilities they provide for creation and maintenance, blogs are becoming new and reliable sources of education and information in different fields. In health, its use has been increasing, encouraged even by public managers who see in this strategy a way to provide high visibility to information, but also to create more effective mechanisms of communication and interaction between users-workers-managers. The advantages of this tool to support management, besides increasing the self-esteem of health professionals who can record their daily life, refer to the low cost, covering thousands of people, the potential for interaction with the population and social media dissemination.

In the scope of the Family Health Teams that work in PHC, the significant challenges / weaknesses in the context of teamwork refer to the need to organize a period during weekly meetings to plan the postings, update blogs tools and make them dynamic, providing meaning to their existence and making interaction a weekly routine.

The implantation of new technologies, such as new internet communication environments, may suggest transformations in the daily routine of the Family Health Strategy, insofar as they are integrated with other classroom or distance education activities, and strengthen the continuing education of health professionals. An example is an elaboration of "Accountability Seminars" in which each facility must prepare a management report, with photos, testimonials, and epidemiological data to show to the population. The primary source of this report is the material produced by blogs, including videos, and they can make available quickly to all civil society a periodic evaluation of the services provided by the facility.

If the rapid growth of the use of blogs in the field of health can be a step forward, analyzing the difficulties/facilities and strengths/threats related to this innovation, it becomes imperative, above all, to understand the production of information and how readers/netizens receive it.

A limitation of this paper is that there is a need to study communication processes beyond its informative capacity, analyzing the individual, cultural, social, economic and political repercussions, seeking to describe the experiences of stakeholders involved in similar processes to enable other experiences to be known, described and analyzed in the field of health and communication.

Finally, it should be pointed out that initiatives analyzed here, such as the OTICS-RIO Network, should be more widely disseminated to understand, among other factors, the propensity

of users, workers, and managers regarding the availability of interaction and communication between them, their scope and their significance. After all, the power of a network is directly related to its use. Experiences such as the network of about 200 blogs built and maintained by the Family Health Teams in the city of Rio de Janeiro can serve as example to be replicated in other cities in Brazil and in other countries, since we could not find in literature review published in English this type of networking experience, decentralized and extended to the entire territory of a large city with more than 6.5 million inhabitants, as is the case in Rio de Janeiro.

Collaborations

References

- 1. Brasil. Ministério da Saúde (MS). Blog da Saúde. [acessado 2015 Jul 1]. Disponível em: http://www.blog.saude.gov.br/
- Brasil. Ministério da Saúde (MS). Portal da Saúde. [acessado 2015 Jul 1]. Disponível em: http://portalsaude.saude.gov.br/index.php/cidadao/redes-sociais
- 3. Manso-Rodríguez RA. ¡Leer, comentar, compartir! El fomento de la lectura y las tecnologías sociales. TransInformação. 2015, 27:9-19.
- 4. Mabel Carrillo G, Chaparro Díaz L, Barrera Ortíz L, Pinto Afanador N, Sánchez Herrera B. El blog como herramienta de soporte social para personas com enfermedad Crónica. Ciencia y Enfermería 2011; 17(3):137-149.
- 5. Borges J, Lessa B, Oliveira L. O papel dos sites de redes sociais nas estratégias comunicativas de organizações da sociedade civil de Salvador-Bahia-Brasil. Observatorio (OBS*) Journal 2014; 8(3):183-203.
- 6. Lima SGP, Guimarães KMF, Gerhardt PC, Cassiano ACM, Vermelho SCSD, Bortolozzi F. Utilização de redes sociais digitais na área da saúde: uma revisão sistemática. Saúde e Pesquisa 2015; 8(Ed. Especial):79-91.
- 7. Ferreira AI. Projeções de Taxa de Mortalidade [dissertação]. Porto: Universidade do Porto; 2012.
- González de Dios J, González Muñoz M, González Rodríguez P, Esparza Olcina MJ, Buñuel Álvarez JC. Blogs médicos como fuente de formación e información: El ejemplo del blog Pediatría basada en pruebas. Revista Pediatría de Atención Primaria 2013; 15(57):27-35.
- 9. Pinto LF. Estratégias de integração e utilização de Bancos de Dados Nacionais para Avaliação de Políticas de Saúde no Brasil [tese]. Rio de Janeiro: Fiocruz; 2006.
- 10. Rede Interagencial de Informações para a Saúde (RIP-SA). Indicadores básicos para a saúde no Brasil: conceitos e aplicações. 2ª ed. Brasília: Organização Pan-americana de Saúde (OPAS); 2008.
- 11. Rio de Janeiro. Prefeitura da Cidade do Rio de Janeiro, Secretaria Municipal de Saúde. Blog da Clínica da Família Felippe Cardoso. Rio de Janeiro/RJ, Secretaria Municipal de Saúde, 2015. [acessado 2015 Jun 1]. Disponível em: http://smsdc-csf-felippecardoso.blogspot.
- 12. Weber L, Grisci CLI, Paulon SM. Cartografia: aproximação metodológica para produção do conhecimento em gestão de pessoas. Cad. EBAPE.BR. 2012; 10(4):841-857.
- 13. Minayo MCS. Análise qualitativa: teoria, passos e fidedignidade. Cien Saude Colet 2012; 17(3):621-626.
- 14. Rio de Janeiro. Prefeitura da Cidade do Rio de Janeiro, Secretaria Municipal de Saúde. Rede de Estações-Observatório das Tecnologias de Informação e Comunicação em Serviços de Saúde. Rio de Janeiro/RJ: Secretaria Municipal de Saúde; 2012. [acessado 2015 Maio 2]. Disponível em: http://www.redeoticsrio.org/
- 15. Pinto LF, Rocha CMF. Inovações na Atenção Primária em Saúde: o uso de ferramentas de tecnologia de comunicação e informação para apoio à gestão local. Cien Saude Colet [Internet]. 2016 Maio [citado 2016 Dez 15]; 21(5):1433-1448. Disponível em: http:// www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232016000501433&lng=pt. http://dx.doi. org/10.1590/1413-81232015215.26662015.

- 16. Blog da rede OTICS-RIO. [acessado 2015 Jun 14]. Disponível em: http://otics-rio.blogspot.com.br/p/redede-blogs.html
- 17. Brasil. Ministério da Saúde (MS). Secretaria de Atenção à Saúde. Departamento de Informática do SUS. Cadastro Nacional de Estabelecimentos de Saúde (CNES), 2015. [acessado 2015 Jun 14]. Disponível em: http://cnes.datasus.gov.br/Lista_Es_Municipio.asp?-VEstado=33&VCodMunicipio=330455&NomeEstado=RIO%20DE%20JANEIRO
- 18. Rio de Janeiro. Prefeitura da Cidade do Rio de Janeiro, Secretaria Municipal de Saúde. 4º Concurso de Blogueiros da Saúde da Família do Rio de Janeiro: Edital 2014. Rio de Janeiro/RJ, Secretaria Municipal de Saúde, 2014. [acessado 2015 Jul 14]. Disponível em: http://redeoticsrio.org/Blog/edital/Edital%202014_IVCBSF.pdf
- 19. Rio de Janeiro. Prefeitura da Cidade do Rio de Janeiro, Secretaria Municipal de Saúde. Clínica da Família Exemplo. Rio de Janeiro/RJ, Secretaria Municipal de Saúde, 2015. [acessado 2015 Jun 14]. Disponível em: http://exemplodeumblog.oticsrio.org/
- 20. Kaplan AM, Haenlein M. Users of the world, unite! The challenges and opportunities of social media. Business Horizons 2000; 53(1):59-68.
- 21. Woo-Young C, Park HW. The network structure of the Korean blogosphere. Journal of Computer-Mediated Communication 2012; 17(2):216-230
- 22. Herrera-Usagre M, Reyes-Alcazar V, Valverde JA. Predisposición ciudadana en España a utilizar canales de comunicación con el médico basados en internet. Rev Panam Salud Publica 2014; 35(5):384-391.
- 23. Sociedade Brasileira de Medicina de Família e Comunidade. XII Congresso Brasileiro. Minicursos: Edição de vídeos para área da saúde. Territorialização em Saúde da Família com o uso do Google Earth. Criação de Blogs para saúde. Belém/Pará. [acessado 2015 out 30]. Disponível em: http://www.eventosecongressos.com. $br/oceano/familia 2013/p/index_programa do_forum.$ php#2276
- 24. Sociedade Brasileira de Medicina de Família e Comunidade. 12th WONCA World Rural Health Conference. Oficinas: Territorialização em saúde da família com uso do Google Earth. Elaboração de Blogs para unidades de atenção primária em saúde. Gramado/Rio Grande do Sul, 03-05 abril 2014.

Article submitted 22/08/2017 Approved 06/03/2018 Final version submitted 11/06/2018