

Strategic Communication for Local Public Health Services in Portugal: A Delphi Study

Estudo Delphi sobre a Comunicação Estratégica em Unidades de Saúde Pública em Portugal

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ABSTRACT

Introduction: Strategic communication plays a decisive role in public health planning and project implementation. However, Portuguese Local Public Health Units, which are responsible for community interventions, still lack guidance models, tools, specialized resources, and training in health communication. The aim of this study was to develop a conceptual model of strategic organizational communication for local public health services, in Portugal.

Methods: This study presents a conceptual model of strategic organizational communication for Local Public Health Units, which was developed through a three-round, modified Delphi online panel. Thirty-seven Portuguese specialists in public health, communication, and community members were invited to analyse a proposed framework, based on an up-to-date literature review. High retention rates were observed in all rounds (first = 22 valid participations; second = 21 valid participations; third = 18 valid participations).

Results: Most participants believed that Portuguese Public Health Units were not prepared to communicate effectively and that they would benefit from adequate planning and identification of a communication lead or team. Websites and social media were also identified as essential for effective communication. The validated conceptual model integrated different partners in health and in the community, with emphasis on the relationships with the national network of health authorities, other Public Health Units, primary health care units, municipalities, and schools. The preferred channels identified for communicating with these partners included interpersonal relationships, email, and mobile phone. No consensus was obtained for preferred communication channels between Local Public Health Units and the media.

Conclusion: Strategic planning based on the proposed conceptual model involving different stakeholders, has potential to improve the effectiveness of internal and external communication and facilitate the implementation of public health programs and projects. The proposed model needs to be validated in Local Public Health Units, considering the potential human, material, and financial constraints.

Keywords: Delphi Technique; Health Communication; Portugal; Public Health Administration; Strategic Planning

Strategic Communication for Local Public Health Services in Portugal: A Delphi Study

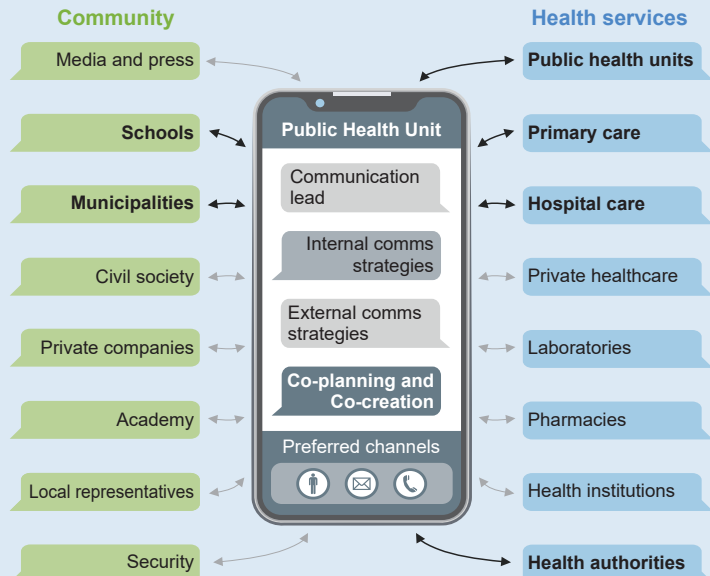
VISUAL ABSTRACT

Local Public Health Units lack guidance models, tools, specialized resources and training in health communication. **Strategic communication** plays a decisive role in local public health planning:

- ✓ Improves internal & external communication;
- ✓ Improves health projects' implementation.

Literature review for developing a strategic organizational communication for Local Public Health Units.

3-round Modified Delphi online panel including 18 to 22 experts in public health communication and community members.



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RESUMO

Introdução: A comunicação estratégica desempenha um papel fundamental no planeamento e implementação de projetos em saúde pública. No entanto, as Unidades de Saúde Pública em Portugal, responsáveis por intervenções comunitárias, carecem de modelos orientadores, ferramentas, recursos especializados e formação em comunicação em saúde. O objetivo deste estudo foi desenvolver um modelo conceptual de comunicação organizacional estratégica aplicável pelas Unidades de Saúde Pública, em Portugal.

Métodos: Este estudo apresenta um modelo conceptual de comunicação organizacional estratégica para Unidades de Saúde Pública em Portugal, desenvolvido através de um painel online Delphi modificado de três rondas. Trinta e sete especialistas portugueses em saúde pública, comunicação e membros da comunidade foram convidados a analisar um modelo proposto, com base numa breve revisão da literatura. Foram observadas elevadas taxas de participação em todas as rondas (primeira = 22 participações válidas; segunda = 21 participações válidas; terceira = 18 participações válidas).

Resultados: A maioria dos participantes afirmou que as Unidades de Saúde Pública em Portugal não estavam preparadas para comunicar de forma eficaz e que beneficiariam de um planeamento adequado e definição de um responsável ou equipa de comunicação. *Websites* e redes sociais também foram identificados como essenciais para uma comunicação efetiva. O modelo conceptual validado considerou diferentes parceiros na saúde e na comunidade, com destaque para as relações com a rede nacional de autoridades de saúde, outras Unidades de Saúde Pública, cuidados de saúde primários, municípios e escolas. Os canais preferenciais identificados para comunicação com esses parceiros incluem relacionamentos interpessoais, correio eletrónico e telefone. Não houve consenso sobre os canais de comunicação preferenciais entre as Unidades de Saúde Pública e a comunicação social.

Conclusão: O planeamento estratégico baseado no modelo conceptual proposto, envolvendo diferentes parceiros da saúde e da comunidade, tem potencial para melhorar a efetividade da comunicação interna e externa e facilitar a implementação de programas e projetos de saúde pública. O modelo proposto deverá ser validado em Unidades de Saúde Pública, considerando potenciais restrições humanas, materiais e financeiras.

Palavras-chave: Comunicação em Saúde; Gestão de Serviços de Saúde Pública; Painel Delphi; Planeamento Estratégico; Portugal

INTRODUCTION

The Health communication is a research topic that includes both an individualized clinical approach and the transmission of messages to populations, among others. In 1962, Neal framed some of the main applications of health communication, namely the communication of scientific information, communication between health teams, communication between patients and healthcare professionals, communication between healthcare institutions, and mass communication.¹

More recently, health communication was defined by Schiavo as a multidisciplinary area of research and practice related to the exchange of health information and the influence, support, and empowerment of individuals, communities, and organizations to adopt behaviors aimed at improving individual and community health. It should be people-centered, evidence-based, multidisciplinary, strategic, process-oriented, cost-effective, creative, segmented, promote relationships, behavior-driven, and inclusive of vulnerable groups.²

Health communication is deeply related to health literacy, which encompasses a comprehensive perspective of health information, integrating citizens' empowerment, and including an active role in their own health management, both in an individual and a community context.³ During the COVID-19 pandemic, the role of risk communication and health education to promote the adoption of preventive behaviors to control infectious diseases and counteract misinformation was crucial.⁴ Therefore, behavioral sciences are fundamental to develop effective health communication. A vast number of behavioral change techniques are known and can be used in specific contexts.⁵ Social marketing also emerged as a solution to involve communities and promote behavior change through personalized and segmented strategies.⁶

In fact, advocacy communication and social mobilization for health are considered essential public health operations, highlighting the relevance of health literacy to reduce risk, prevent disease, promote health, and ease the navigation of healthcare systems.⁷

Organizational models and strategic communication

According to Lammers and Barbour, organizational communication includes all communication activities that take place within organizations, including daily practices, routines, beliefs, and regulations, among others.⁸ Kunsch considers that organizational communication includes four dimensions that should be balanced according to organizational goals: instrumental, human, cultural, and strategic.⁹ Organizations may find it difficult to achieve their goals if they rely on communication that is horizontal, informal and dominated by personal relationships and emotions. Organizational commitment is mainly determined by vertical and strategic communication, and that is applied to management processes.¹⁰ Strategic communication considers communication used to achieve organizational objectives involving managers and employees, including components such as public relations, corporate communication, business communication, advertising, among others.^{11,12} It is evidence-based, user-centered, oriented towards results and benefits, intervenes at multiple levels, promotes community and partner participation, and uses various media and multimedia channels.¹³ However, not all communication developed in organizations is strategic, including administrative, social, and emotional components.¹⁴ In healthcare, strategic communication can influence agendas, increase the visibility of organizations, develop a credible public image, and build networks with other organizations.¹⁵

Internal and external communication

Internal communication plays an important role in organizational models and workers' motivation and must be coherent throughout the organization. According to Clappitt and Downs, efficient internal communication increases productivity, reduces absenteeism and strikes, encourages innovation, and increases services and the quality of products while reducing costs.¹⁶ Aligning internal communication processes with the organization's objectives facilitates the understanding of the organizational strategy, promotes continuous improvement, and brings professionals closer to managers, supporting them in their actions through formal and informal information flow processes.¹⁷ One of the problems identified is the inability of managers to take an active part in the construction of consistent internal communication systems, whether due to excessive workload, little time to dedicate to assistant managers, or a lack of feedback mechanisms.¹⁸

On the other hand, external communication encourages knowledge sharing with partners and improves the public perception of organizations, contributing to their unique identity.¹⁹ Health services should develop health information materials, but they should also be prepared to analyze how they are perceived and used by patients to adapt these materials to their needs.²⁰

Communication between public health institutions and community partners is essential to achieve each other's goals. It might be done through annual reports, websites, newsletters, pamphlets, meetings, training sessions, media kits, press releases and news articles, among other formats. In addition to traditional media such as television, radio, magazines, newspapers and billboards, digital media integrate social networks (including Facebook®, Instagram®, LinkedIn®, Twitter®, YouTube®, Pinterest®, Reddit® and Tumblr®), text messages (by phone or applications such as WhatsApp® and Facebook Messenger®), email, websites, blogs, and video games.²¹ Audience segmentation according to populations' social, media and digital skills, such as internet and social media use, can improve the effectiveness of public health interventions.²²

An integrated approach to organizational communication includes three perspectives: public relations and institutional communication; internal and administrative communication; and marketing.⁹

Health communication practices in public health services in Portugal

Portuguese public health services are organized at a national, regional, and local level. At a local level, there are 56 public health units (PHU), integrated into community health clusters (CHC), including several professional groups: public health doctors, specialist nurses, environmental health

officers, among others. In 2024 there was a profound reorganization of local health services, now included in 39 local health units, along with primary and secondary healthcare services. According to legislation, based on essential public health operations, PHU are responsible for "ensuring people's awareness, maintaining and improving communication about health and social mobilization for individuals and communities, towards public health".^{7,23} Core competencies of public health doctors also include collaboration with the community, collaboration with healthcare institutions, and health communication targeting the population.²⁴

According to data from the latest Portuguese Health Literacy Survey, in 2019, 70% of Portuguese population had a sufficient or excellent general level of health literacy. However, approximately 55.5% considered that literacy related to the navigation of the healthcare system was problematic or inadequate.²⁵

Although Portugal has a strong health information system, it is mostly based on individual data. It lacks a population-based approach that considers the management of projects and partnerships, monitoring, and evaluation of communication processes.²⁶ In Portugal, most health communication is focused on the hospital context, is reactive and focused on individuals, and lacks comprehensive planning.²⁷ In public health services, there is a lack of adequate training and application of communication techniques, despite their importance. Research in public health communication is also scarce.

Therefore, the aim of this study was to develop a framework for strategic communication in PHU, detailing the most relevant communication channels used according to specific audiences.

METHODS

The aim of this non-interventional qualitative study was to develop a consensus on a framework for strategic communication in PHU, through a three-round, modified Delphi panel, as shown in Fig. 1. Such qualitative research methodology allows a description of complex communication flows, considering perspectives from experts to develop a topic lacking scientific evidence and implementation guidelines,²⁸ such as strategic communication in local public health services.

Literature review

An initial framework was developed following a rapid literature review on strategic organizational communication in health institutions. The inclusion criteria for this review were studies published until 2019, in Portuguese or English, that focused on strategic organizational communication in public health institutions and were available on PubMed, the Open Access Scientific Repositories in Portugal (RCAAP),

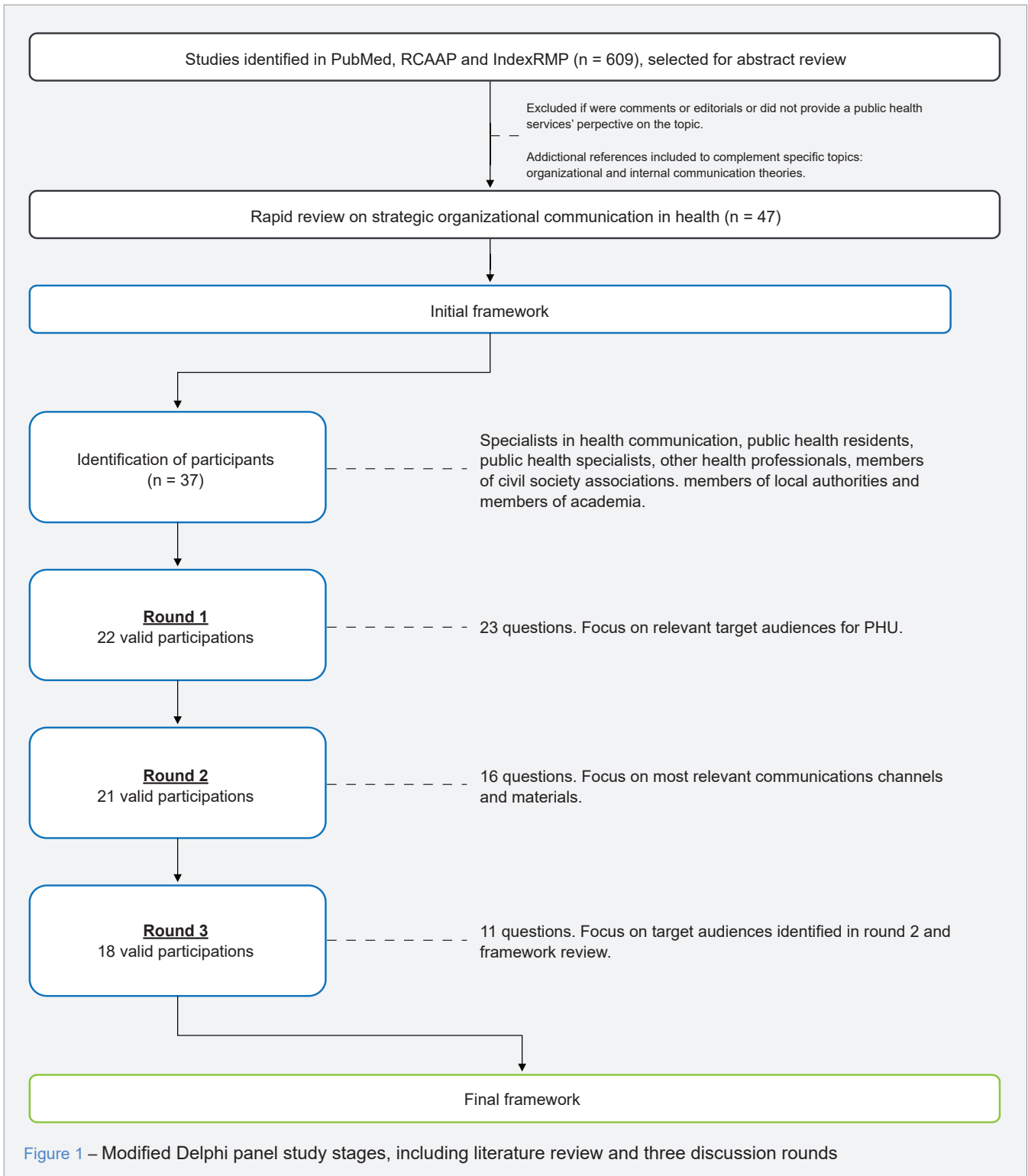


Figure 1 – Modified Delphi panel study stages, including literature review and three discussion rounds

and the Index of Portuguese Medical Journals (IndexRMP). These repositories were screened for articles including the following Portuguese and English terms in the title or abstract: “public health communication”; “health communica-

tion plan*”; “strategic communication”; “organizational communication”; “internal communication”.

The RCAAP were also screened for master’s and postdoctoral theses including “health communication” in

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the title or abstract. A total of 609 articles, master's theses and post-doctoral theses were identified. Articles that were commentaries, editorials, or didn't provide a public health services' perspective on the topic were excluded. Additional references identified during article analysis were included to complement more specific topics, such as organizational and internal communication theories. After title and abstract analysis, 47 articles were identified to support the initial framework.

The most relevant frameworks that were considered to produce the initial proposed framework included: internal communication proposed by Yates²⁹; PHU stakeholders' management proposed by Beaufort and Rohrer³⁰; and institutional organizational communication proposed by Lambers and Barbour.³¹

Participants in Delphi panel

Thirty-seven experts were invited via e-mail to participate in this Delphi panel, including 22 women and 15 men. Different perspectives were considered³²:

- Sixteen healthcare professionals, including public health doctors, family physicians, community health nurses, environmental health officers, and teachers with background in public health. Among these, eight experts worked in local public health units, providing insightful feedback about the usability of the proposed framework;
- Fourteen communication professionals, including journalists, researchers, and teachers with background in health communication;
- Seven community stakeholders, including school directors, members of patient associations, members of the city council and politicians, with interventions in health topics.

Experts were selected based on convenience, knowledge about health communication, experience at the local level and availability to participate.³³

Data collection

Data was collected between August and October 2020 through a digital questionnaire on Google Forms®, shared via blind carbon copy emails, ensuring participants' confidentiality.³⁴ The collected data included only the participants' e-mail addresses as potentially identifiable information, to avoid repeated answers. In all rounds of discussion, the participants provided their voluntary and informed consent to the study's objectives, data collection, and analysis.³⁵ Each round lasted approximately 10 days, including two reminders sent via email. High retention rates were observed in all rounds (first = 59%; second = 57%; third = 48%). The questionnaire presented successively fewer questions,

including open-answer, multiple choice, matrix-format, and Likert scale questions, ensuring that a maximum limit of 26 questions was not exceeded, as suggested in the current scientific literature.³⁶ Likert scale questions focused on collecting feedback regarding general statements about the importance of communication planning for local public health services. Open-ended questions asked for suggestions regarding internal and external communication in PHU and its main barriers, feedback on the proposed framework, and suggestions for additional audiences and communication channels to be included in the proposed framework. Multiple-choice and matrix-format questions aimed to gather consensus regarding the main barriers and facilitators of internal and external communication, as well as the main audiences and communication channels used in PHU.

Data analysis

Data analysis was performed by the main researcher. Consensus was defined as agreement ('strongly agree' or 'agree') or disagreement ('strongly disagree' or 'disagree') among at least 70% of answers in each round, as suggested in the scientific literature.³⁷ Qualitative thematic analysis of open-ended answers allowed items to be categorized and included in closed-ended questions in the following rounds (e.g., identification of closed-ended options for barriers to internal and external communication). Descriptive quantitative analysis was performed using Microsoft Excel® software. Results were presented as raw numbers and percentage of agreement or disagreement, considering a 70% threshold, in each round. The data collected and agreed upon in the third round of discussion was integrated into the final framework.

Both an initial and revised protocol for this study were submitted to the Portuguese Institute of Hygiene and Tropical Medicine (IHMT) Ethical Committee before the research was conducted. The protocol N. 07.20 was approved on July 30, 2020.

RESULTS

Retention rates per field of work

Retention rates among 37 invited experts decreased from 59% to 48%, while most participants worked in healthcare (14 in each discussion round). Between two and three academics participated in each round of this Delphi panel, while specialists in communication varied from three in the first round of discussion to one in the last round of discussion. People involved in community services (politicians and school directors) were the least engaged group, including two participants in the first round of discussion and one in the last round of discussion.

Perception about health communication in local public health services

According to the invited experts, “communication is fundamental to public health” and “it is essential to have a functional area dedicated to communication in PHU” represented an agreement consensus of 100% and 95% of participants obtained during the first round of discussion, respectively. Most experts disagreed that “PHU are prepared to communicate effectively” (disagreement consensus of 82%, obtained in the first round of discussion) and believed that “it is essential to have a framework, like the one proposed in this study, to prepare communication in PHU” (agreement consensus of 91%, obtained in the first round of discussion).

Internal communication in local public health services

Public health units include a wide range of healthcare professionals, including public health authorities, public health doctors, nurses, environmental health officers, den-

tal hygienists, technical assistants, operational assistants, among others. Most experts disagreed that “internal communication between these professionals is well developed” (disagreement consensus of 77%) and believe that “for an adequate internal communication planning, it is essential to define someone responsible for communication in PHU” (agreement consensus of 95%, obtained in the second round of discussion).

External communication in local public health services

During the first round of discussion, external communication was mostly discussed with open-answer questions, and consensus was obtained in the second and third rounds of discussion. All participating experts agreed that “for an adequate external communication planning, it is essential to define someone responsible for communication in PHU” (agreement consensus of 100%, obtained in the second round of discussion). Most participating experts also believed that external communication in PHU

Table 1 – Agreement percentage on the most relevant communication channels to be used by public health units by target audience. Consensus was obtained in the second round of discussion (n = 21), except for audiences in italic lettering, for which consensus obtained in the third round of discussion. No consensus was obtained for the media audience.

Target audience	Communication channel	% agreed	Target audience	Communication channel	% agreed
	Interpersonal relationships	90		E-mail	86
Health authorities	E-mail	86	Private companies	Website	71
	Mobile phone	71		Mobile phone	38
	E-mail	89		Interpersonal relationships	83
<i>Other PHU</i>	Mobile phone	78	<i>Health institutions</i>	E-mail	78
	Interpersonal relationships	72		Mobile phone	33
	Mobile phone	86		Social media	81
Hospitals	E-mail	81	<i>Civil society</i>	Website	76
	Interpersonal relationships	76		Media	57
	Interpersonal relationships	81		E-mail	89
Primary health care	E-mail	81	<i>Community pharmacies</i>	Website	39
	Mobile phone	71		Mobile phone	39
	Interpersonal relationships	100		E-mail	86
Schools	E-mail	81	Private healthcare	Mobile phone	52
	Mobile phone	67		Website	48
	Interpersonal relationships	89		E-mail	86
<i>Community leaders</i>	E-mail	72	Academia	Mobile phone	57
	Mobile phone	56		Interpersonal relationships	52
	Interpersonal relationships	86		E-mail	81
City councils	E-mail	81	Security and military	Interpersonal relationships	67
	Mobile phone	57		Mobile phone	62
	E-mail	86		E-mail	61
Laboratory	Mobile phone	76	Media	Website	61
	Interpersonal relationships	57		Social media	50

should involve an institutional website and social media (agreement consensus of 95% and 90%, respectively, obtained in the second round of discussion).

The most relevant target audiences and stakeholders were identified during the first round of discussion through open-answer questions, while their relevance, preferable communication channels, and materials were agreed upon in the following rounds.

Regarding the relevance to target audiences, no consensus was obtained in the second round of discussion. In the last round of discussion, the most important target audiences included primary health care institutions, health authorities, hospitals, community pharmacies, local councils, and local community leaders (agreement consensus of 100%, obtained in the third round of discussion). Schools, civil society, and healthcare institutions involved in decision-making were considered highly relevant (agreement consensus of 94%, obtained in the third round of discussion). No consensus was obtained on the relevance of academia for PHU.

Regarding the preferred communication approach for target audiences, participating experts considered that PHU should interact via formal communication channels with most stakeholders. Consensus on using formal and informal communication channels was obtained for interaction with other PHU (agreement consensus of 83% and 77%, for formal and informal communication channels, respectively) and schools (agreement consensus of 81%, for both formal and informal communication channels). No consensus was obtained on the preferable communication approach for civil society.

Regarding the preferred communication channels for target audiences, e-mail, mobile phone, and interpersonal relationships were the most agreed-upon overall. Table 1 describes the top three communication channels and agreement percentage (consensus was only considered if more than 70% of participants agreed on the same communication channel) by target audience. While consensus on three communication channels was obtained for interaction with health authorities, other PHU, hospitals, and primary health care, no consensus was obtained for communication with the media. In the second round of discussion, all participants considered that interpersonal relationships were the main communication channel with schools. Interaction with city councils and municipalities was also highlighted by most participants, particularly via interpersonal relationships and e-mail.

Strategic communication framework for local public health services

An initial framework was presented in the first round of discussion, including relevant changes in the following

rounds, such as the inclusion of other stakeholders, highlights of the most relevant interactions, bidirectional communication, and most relevant communication channels (after consensus). According to participating experts, internal and external communication strategies were adequately represented in the final proposed framework (agreement consensus of 94%, obtained in the third round of discussion), as shown in Fig. 2.

DISCUSSION

According to 82% of the participants, PHU in Portugal were not ready to communicate effectively with stakeholders and the community. Some suggestions to improve this area included the implementation of a strategic planning process, the identification of a communication lead or team, the reinforcement of human and technological resources, as well as the prioritization of internal and external communication activities. According to at least 90% of the participants, PHU should have websites and social media accounts. In this conceptual model, most participants highlighted the importance of the collaboration with schools, municipalities, other PHU, primary healthcare units, hospitals, and health authorities. At least 70% of the participants considered interpersonal relationships and e-mail as the main communication channels to interact with these stakeholders.

Although communication is considered a key aspect of public health, there are no specific guidelines on how it can be implemented in public health units in Portugal. A modified online Delphi panel enabled the development of a conceptual model involving multiple stakeholders in only two months and without incurring relevant expenses.

Digital and online tools allowed faster data collection, minimizing errors in transcription while maintaining the confidentiality of experts and avoiding biased perspectives due to group interaction.³⁸ The threshold for consensus was set at 70%, according to previous studies.³⁷

Methodological limitations

Although scientific evidence is widely available for organizational communication in hospitals, there is a lack of relevant frameworks applied to primary care and public health services, particularly at local level. Therefore, this study contributes to the improvement of communication planning among public health services and fills that knowledge gap while providing an applicable framework. Using consensus methodology through a Delphi panel of specialists in public health, communication, and community members we were able to overcome the lack of a conceptual model for communication in PHU in Portugal, with low financial costs. Since PHU include different healthcare professionals and interact with multiple health stakeholders, they represent a greater proportion of invited experts. The selection of

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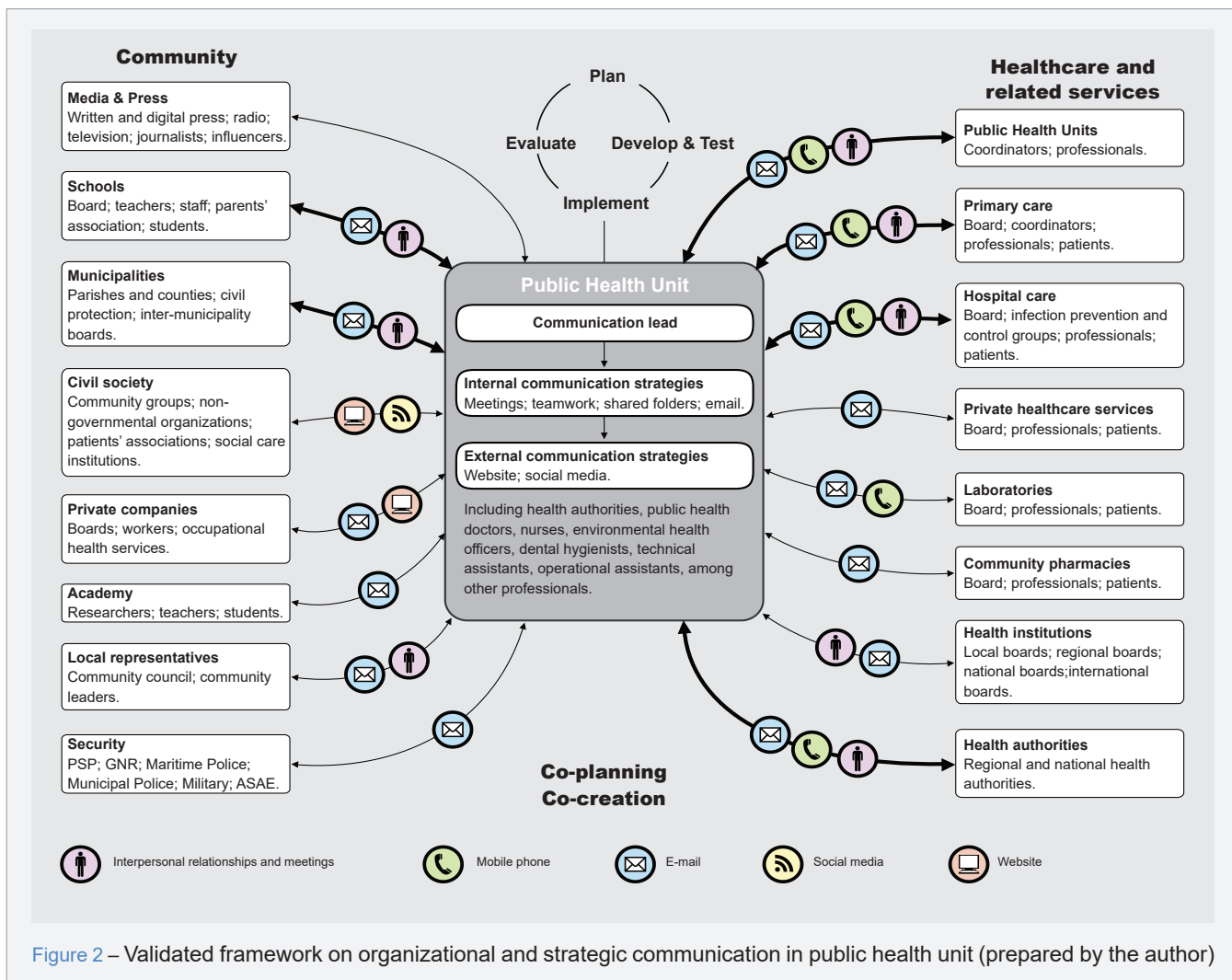


Figure 2 – Validated framework on organizational and strategic communication in public health unit (prepared by the author)

experts was motivated by convenience and availability, which can lead to potential bias and homogeneous thinking.³⁹

The proposed initial framework was developed after a rapid review of organizational health communication, a methodological approach chosen due to time constraints that ensured a critical appraisal of current evidence. However, a more comprehensive systematic review could provide a more detailed analysis of the topic.

Data collection through online questionnaires allowed the inclusion of experts from different geographical areas, who provided a broader perspective on the topic. Anonymity during the discussion rounds potentially avoided dominance of one perspective over others, which is a common limitation in focus group methodology. There was a high retention rate of participants, which led to a variety of perspectives, although it decreased in further discussion rounds: 59% in the first round, 57% in the second round, and 48% in the third

round. Two reminders were sent via e-mail in each round in order to increase the engagement of participants. The proportion of participants who were healthcare professionals was higher, which could be related to direct involvement in public health units and interest in this topic: 64% in the first round, 70% in the second round and 78% in the third round. Although they were invited, no stakeholders from civil society participated in the Delphi panel, which could perhaps be explained by a lack of interest in the topic. This should be addressed in further studies in order to increase the validation of the conceptual model among community stakeholders with high relevance to public health interventions.

Three healthcare professionals tested the initial questionnaire and suggested minor revisions. In the first round, most participants considered they did not know if formal or informal communication channels were established between PHU and stakeholders, which required minor revisions to the questionnaire.

Strategic communication frameworks in healthcare

The COVID-19 pandemic exacerbated existing weaknesses in public health communication, a lack of training, and an urgent need of local operationalization of vague theoretical recommendations.⁴⁰ According to the existing evidence, most local health plans developed by PHU did not mention proper communication strategies to implement the proposed strategies.⁴¹ As shown in this study, PHU in Portugal lack structural, organizational, and strategic planning to communicate more effectively with different healthcare professionals and stakeholders. Hospitals manage internal communication more effectively, but financial and management autonomy play a relevant role in the operationalization of communications.²⁷

Lack of planning, coherence, and assertiveness in public health communication increased during the COVID-19 pandemic, deepening existing problems.⁴² The proposed conceptual model could provide the foundations for PHU to better communicate with wider audiences, via healthcare and community stakeholders they usually engage with. Specific local contexts should be considered, as well as stakeholder mapping, through the identification of the most relevant and influential ones.⁴³ This study did not analyze interactions between community and healthcare stakeholders, which were already in place and did not involve PHU.

Internal communication in PHU

According to this study, having an individual or team responsible for communication in PHU is a key aspect to improve public health communication. In most PHU in Portugal, health authorities usually assume this role informally, regardless of their knowledge and skills in health communication, which could lead to difficulties in communicating during a public health crisis.⁴⁴ Since PHU have a diverse workforce, including medical doctors, nurses, environmental health officers, dental hygienists, senior diagnostic and therapeutic technicians, administrative and operational assistants, internal communication processes are particularly relevant to promoting teamwork and good interpersonal relationships.⁴⁵

External communication in PHU

Although communication through digital and online channels can improve population outreach, about 73% of PHU do not communicate via a website, and 89% do not own a Facebook® page. For those who own websites, there is a lack of proper integration with a coherent communication strategy within the Portuguese National Health Service.^{13,46} According to this study, websites represent a relevant communication channel between PHU, private companies, and civil society (with consensus), private healthcare services, community pharmacies, and media (without consensus).

E-mail was the most relevant communication channel identified in this study, but public health professionals still lack practical training in managing e-mail inboxes.⁴⁷ Interpersonal and telephone communication allow PHU to establish stronger institutional relationships but require more time and commitment.⁴⁸ During the COVID-19 pandemic, most in-person meetings were replaced by videoconferences, which saved time and reduced the risk of contagion.⁴⁹

Although mainstream media, such as TV, radio, and newspapers, are relevant communication channels to reach wider audiences, there was no consensus on how PHU can communicate with them. Lack of knowledge about how to communicate with journalists and the need for hierarchical feedback may contribute to this result.¹³ According to this study, PHU and academia may have a suboptimal relationship, probably due to a lack of knowledge translation from public health researchers to practitioners, regardless of its potential to strengthen research and outreach capacity.²⁶

Communication between PHU and schools using both formal and informal communication channels was considered extremely relevant, which was probably due to long-term relationships and local coordination of the National Program for School Health.⁵⁰ Communication with municipalities was also highlighted, probably due to frequent interactions via Civil Protection meetings and local health planning strategies.

Applicability and future perspectives

There is a need to disseminate and validate the proposed conceptual model in multiple PHU, considering potential human, material, and financial constraints. Given the high level of consensus and previous research, the development of PHU websites and discussion regarding social media interaction should be a priority, with proper technical support and training, as mentioned in the Portuguese scientific literature.⁴⁶ Considering the engagement of multiple stakeholders that public health requires, the proposed framework provides a structured approach to mapping and discussion about the most relevant communication channels.

Invited experts working at PHU in Portugal ensured relevant feedback on the applicability of the proposed framework in public health services at a local level. Uptake by PHU can be promoted through local workshops focused on identifying communication channels and mapping stakeholders. Lack of human resources, time and strategic planning were constraints identified by the surveyed experts. While this framework could improve strategic planning, further investment in human resources might be required to ensure proper implementation. As agreed by participants in this Delphi panel, creating a communication team and lead, with awareness of the available communication channels,

procedures, and hierarchies, could be a starting point to improve internal communication in PHU.

To encourage a focus on strategic communication planning, annual commissioning between PHU and local health-care managers could include communication-related indicators.²⁶

CONCLUSION

Communication is a core public health area, which lacks adequate strategic and operational planning, particularly in local public health services. The development of strategic and organizational communication plans in PHU, in Portugal, as proposed in this framework, has the potential to enhance internal communication procedures in PHU, improve the implementation of public health programs, and promote better interaction with the community and local stakeholders.

According to the proposed framework, internal and external communication strategies should consider assigning a person or team responsible for communication planning, implementation, monitoring, and evaluation and promoting the use of digital platforms such as e-mail, websites, and social media. To communicate effectively with communities and multiple stakeholders, which is one of the most important competencies of PHU, it is essential to identify communication strategies that integrate community partners, build capacity in local public health services, and prepare communication plans for activities to be developed.

AWARDS AND PREVIOUS PRESENTATIONS

Poster presentation in the 16th World Congress on

Public Health (Online, October 2020) and Public Health National Conference 2023 (Lisboa, June 2023).

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PROTECTION OF HUMANS AND ANIMALS

The author declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

DATA CONFIDENTIALITY

The author declare having followed the protocols in use at their working center regarding patients' data publication.

COMPETING INTERESTS

DVB is the vice-president of the Portuguese Association of Public Health Doctors.

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