

## Multilingual Health Communication, Digital Trust, and Institutional Discourse: A Comparative Critical Discourse Analysis of Public Health Messaging in Canada and Singapore

Mei Lin Chen<sup>1</sup>

**Mei Lin Chen**

Department of English, Linguistics and Theatre Studies

National University of Singapore

Email: meilin.chen@nus.edu.sg

**\*Corresponding Author:** meilin.chen@nus.edu.sg

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### ABSTRACT

Multilingual public health communication has become a central institutional challenge in digitally mediated societies where linguistic diversity, platformized information flows, and public trust intersect. This article comparatively examines how multilingual health messaging constructs institutional authority, citizen participation, and communicative inclusion in Canada and Singapore. Drawing on critical discourse analysis, sociolinguistics, and corpus-assisted institutional discourse analysis, the study analyzes 1.9 million words of public health messages, government advisories, multilingual social media posts, translated health materials, and institutional web texts produced between 2020 and 2025. The findings show that Canada’s public health discourse emphasizes participatory inclusion, community translation, and culturally responsive risk communication, whereas Singapore’s discourse prioritizes institutional clarity, behavioral compliance, and centralized multilingual standardization. The comparative evidence demonstrates that multilingual health communication is shaped by language policy regimes, governance traditions, digital platform practices, and culturally situated expectations of institutional trust. This article argues that public health discourse functions as a linguistic infrastructure through which states organize risk perception, social responsibility, and communicative belonging. The study contributes to contemporary language science by proposing the concept of multilingual risk mediation to explain how institutional discourse transforms health knowledge into

socially actionable communication across linguistically diverse societies.

**Keywords:** public health discourse, multilingual communication, critical discourse analysis, language policy, institutional trust, Canada, Singapore, risk communication, digital health communication, sociolinguistics

## INTRODUCTION

Public health communication is one of the most socially consequential domains of institutional discourse. In multilingual societies, health messages do not simply transmit medical information; they organize risk perception, citizen responsibility, institutional trust, and collective behavior. The COVID-19 pandemic, the expansion of digital health platforms, and the increasing use of multilingual government communication have demonstrated that language is central to public health governance. Health communication must be accurate, accessible, culturally intelligible, and institutionally legitimate, particularly when addressing linguistically diverse populations.

Canada and Singapore provide a productive comparative context for analyzing multilingual health discourse. Both are highly multilingual societies with advanced public institutions and strong digital communication infrastructures. However, they differ significantly in language policy history, governance style, public communication ideology, and institutional management of linguistic diversity. Canada officially recognizes English and French while also addressing Indigenous languages, immigrant languages, and multicultural community communication. Singapore institutionalizes English, Mandarin, Malay, and Tamil within a highly centralized multilingual policy framework. These differences shape how public health messages are produced, translated, circulated, and interpreted.

The academic and social problem addressed in this article is that multilingual health communication is frequently treated as a matter of translation accuracy rather than discourse organization. Yet public health messages involve stance, authority, politeness, urgency, solidarity, responsibility, and behavioral instruction. A message about vaccination, mask use, mental health, or disease prevention does not merely describe a medical fact; it constructs a relationship between institution and citizen. It defines who is responsible, who is vulnerable, whose language is visible, and which forms of knowledge are legitimate.

Previous studies in critical discourse analysis have shown that institutional language reproduces power relations through framing, modality, and ideological positioning (Fairclough, 1995; Wodak & Meyer, 2016). Health communication scholarship has emphasized clarity, trust, risk framing, and audience adaptation (Hyland, 2022; van Dijk, 2021). Sociolinguistic research has further demonstrated that multilingual communication is shaped by language ideologies, symbolic capital, and unequal access to institutional voice (Bourdieu, 1991; Piller, 2023). However, current scholarship remains limited in explaining how multilingual public health discourse operates comparatively across different governance systems.

While previous studies emphasize misinformation, health literacy, and crisis messaging, fewer studies examine how institutional multilingual discourse constructs communicative inclusion. Other linguists argue that translation and localization are central to equitable public communication, but existing literature often underexamines the discourse mechanisms through which translated messages position communities as participants, recipients, or subjects of governance. Existing language science literature therefore remains limited in connecting language policy, institutional discourse, digital health communication, and socio-cultural trust within a comparative framework.

This study addresses that gap by analyzing public health messaging in Canada and Singapore across two dimensions: multilingual institutional communication and digital risk discourse. The article examines how language structures and discourse practices connect with public health systems, citizenship norms, and socio-cultural outcomes. The central argument is that multilingual public health communication functions as a form of institutional risk mediation: it transforms expert health knowledge into socially actionable discourse through language choice, rhetorical framing, translation strategy, and digital circulation.

The novelty of this article lies in its integrated analytical approach. Rather than treating health communication as informational transmission, the study examines it as a multilingual discourse system shaped by institutional ideology. It compares two societies with different approaches to language policy and governance, showing how similar communicative goals produce different linguistic outcomes. Canada's discourse tends to emphasize inclusion, community responsiveness, and participatory trust. Singapore's discourse tends to emphasize clarity, authority, efficiency, and behavioral coordination. Both approaches demonstrate strengths and limitations.

The analytical framework guiding this study is:

Language policy → multilingual health discourse → risk interpretation → institutional trust → public participation.

Within this framework, language policy influences which languages are prioritized, how messages are translated, and how publics are addressed. Multilingual discourse shapes how health risks are interpreted, while institutional trust influences whether messages become socially actionable. The research objective is to comparatively analyze how multilingual public health communication in Canada and Singapore constructs institutional authority, communicative inclusion, and socio-cultural participation in digitally mediated health environments.

## **METHODOLOGY**

This study employed a comparative corpus-assisted critical discourse analytical design integrating institutional discourse analysis, sociolinguistics, and multilingual health communication research. The empirical corpus consisted of approximately 1.9 million words of public health communication produced between 2020 and 2025, including government health advisories, multilingual vaccination messages, mental

health campaigns, pandemic guidance, translated public service announcements, institutional webpages, and official social media posts from Canada and Singapore. The two cases were selected because both societies are institutionally multilingual but differ in language policy organization, governance traditions, and public communication style. The unit of analysis included modality, directive structures, pronoun use, risk framing, translation equivalence, politeness strategies, institutional attribution, community representation, and digital engagement markers. Quantitative corpus analysis examined keyword frequency, collocation patterns, lexical density, modal verbs, inclusive pronouns, and repetition of behavioral directives, while qualitative discourse analysis interpreted how linguistic patterns constructed authority, trust, responsibility, and belonging.

The methodological framework aligned the research problem with critical discourse theory by treating public health language as an institutional practice embedded in social power, policy, and communicative inequality. Data were triangulated through comparison of official policy documents, public health communication guidelines, multilingual translations, and digital platform texts. Validation involved cross-linguistic checking, repeated coding calibration, and interpretive comparison across English, French, Mandarin, Malay, Tamil, and selected community-language materials. Ethical considerations were addressed by using publicly available institutional texts, avoiding private user data, and anonymizing any incidental community-level references. The study is limited by its focus on official communication and does not measure audience reception directly; nevertheless, it provides a robust discourse-based account of how multilingual health communication organizes institutional authority and public participation in two highly diverse societies.

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## Findings and Discussion

### 1. Institutional Authority and Directive Discourse

The first major finding concerns how institutional authority is linguistically constructed. Singaporean public health messages displayed higher frequencies of direct behavioral imperatives, procedural sequencing, and centralized institutional attribution. Phrases equivalent to “must,” “should,” “follow the advisory,” and “seek medical attention immediately” occurred frequently across English, Mandarin, Malay, and Tamil materials. This discourse pattern constructed the state as a coordinated authority responsible for producing clear, actionable guidance.

Canadian public health discourse, by contrast, used more inclusive and explanatory structures. Messages frequently included “we,” “communities,” “people living in,” and “support is available.” Directives were often embedded within explanatory risk framing and culturally responsive guidance. This style constructed public health as a shared responsibility between institutions, communities, and individuals.

The comparative evidence demonstrates that authority is not simply a matter of institutional source but of discourse structure. Singapore’s authority emerged through clarity, consistency, and centralized instruction.

Canada’s authority emerged through inclusion, explanation, and community-

oriented legitimacy. These differences reflect broader governance cultures and language policy traditions.

From a critical discourse perspective, both models have strengths and weaknesses. Singapore's model may enhance rapid behavioral coordination during public health crises, but it can reduce space for dialogic engagement. Canada's model may strengthen community trust and recognition, but it can produce longer and less immediately directive messages. The findings therefore show that communicative effectiveness depends on the relationship between discourse form, institutional culture, and public expectations.

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## **2. Multilingual Translation and Communicative Inclusion**

The second finding concerns translation strategy and linguistic inclusion. Singapore's multilingual health communication demonstrated high standardization across its four official languages. Translated messages were usually parallel in structure, preserving institutional consistency and behavioral clarity. This approach ensured that major language communities received comparable public health instructions.

Canada's multilingual communication was more uneven but often more locally adaptive. English and French materials were systematically available, while Indigenous and immigrant-language materials varied by province, health region, and community organization. Some materials showed strong cultural localization, especially in Indigenous health communication, refugee health support, and community vaccination outreach.

The linguistic findings indicate that Singapore prioritized equivalence and standardization, while Canada prioritized contextual adaptation where local community partnerships were involved. This difference reveals two models of multilingual inclusion: centralized parity and community-responsive localization.

The evidence suggests that translation is not a neutral technical process. It determines which communities are recognized, how risk is explained, and whether institutional communication feels socially proximate. Literal translation may preserve consistency but fail to address culturally specific health beliefs. Localized translation may enhance relevance but produce uneven access across communities.

This finding contributes to sociolinguistic debates on linguistic citizenship and institutional voice. Multilingual health communication becomes a site where citizens and residents are positioned as either standardized recipients of state messaging or culturally situated participants in public health practice.

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## **3. Comparative Matrix of Linguistic Structures, Communicative Practices, and Socio-Cultural Outcomes**

**Table 1. Comparative Matrix of Linguistic Structures, Communicative Practices, and Socio-Cultural**

<b>Outcomes</b>				
<b>Variable</b>	<b>Case 1: Canada</b>	<b>Case 2: Singapore</b>	<b>Linguistic Evidence</b>	<b>Analytical Interpretation</b>
<b>Institutional voice</b>	Community-oriented and explanatory	Centralized and directive	More inclusive pronouns in Canada; more imperatives in Singapore	Authority is constructed through different discourse models
<b>Multilingual policy</b>	Bilingual core with community-language adaptation	Four-language standardized system	English/French dominance plus localized materials; English/Mandarin/Malay/Tamil parity	Inclusion depends on policy architecture
<b>Risk framing</b>	Contextual and explanatory	Procedural and action-oriented	Canada uses more causal explanation; Singapore uses more behavioral sequencing	Risk communication reflects governance culture
<b>Translation strategy</b>	Adaptive localization	Parallel equivalence	More community-specific adaptation in Canada	Translation organizes social proximity
<b>Digital discourse</b>	Engagement and resource navigation	Rapid instruction and compliance	Canadian posts link support services; Singapore posts emphasize action steps	Platform communication reflects institutional priorities
<b>Citizen positioning</b>	Participant and community member	Responsible rule-following actor	Different pronoun and modality patterns	Publics are constructed differently
<b>Communicative strength</b>	Trust-building inclusion	Clarity and coordination	Different persuasive mechanisms	Effectiveness is context-dependent
<b>Socio-cultural outcome</b>	Recognition of diversity but uneven access	Standardized access but limited local nuance	Different inclusion risks	Multilingual health discourse shapes belonging

The comparative matrix demonstrates that multilingual health communication is shaped by institutional language policy and public communication ideology. Canada's model foregrounds community participation and contextual recognition, while Singapore's model foregrounds standardized clarity and coordinated behavioral response.

The deeper analytical implication is that public health communication cannot be evaluated only by linguistic accuracy or readability. It must also be examined through discourse relations: who speaks, who is addressed, how responsibility is distributed, and how cultural difference is recognized. Institutional messages are successful not only when they are understandable but when they become socially legitimate.

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#### **4. Digital Health Communication and Public Trust**

The final finding concerns digital trust. In both countries, public health communication increasingly circulated through websites, mobile applications, social media, infographics, and automated service portals. However, digital communication styles differed.

Canadian digital health discourse often linked users to additional resources, community organizations, mental health services, and local public health units. This created a networked discourse structure in which institutional trust was distributed across multiple actors. Singaporean digital discourse was more centralized, with official government platforms functioning as primary sources of verified information.

These patterns shaped public trust differently. Canada's networked model enabled community responsiveness but sometimes produced fragmented communication. Singapore's centralized model supported consistency and rapid recognition of official authority but depended strongly on public acceptance of centralized institutional voice.

The linguistic evidence shows that Canadian digital messages contained more relational and supportive language, while Singaporean digital messages contained more procedural and verification-oriented language. These differences reflect contrasting models of trust: trust through relationship and trust through system reliability.

This finding extends health discourse scholarship by showing that digital trust is linguistically constructed. It emerges through pronouns, modality, source attribution, hyperlink structures, translation availability, and platform design. Trust is therefore not merely psychological or institutional; it is discursively produced.

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#### **Theoretical Propositions**

**Proposition 1: Multilingual public health communication functions as institutional risk mediation.**

Health discourse transforms expert knowledge into socially actionable communication through language choice, translation strategy, modality, and audience positioning.

**Proposition 2: Institutional authority is linguistically variable across governance cultures.**

Authority may be constructed through centralized directive clarity or through participatory community-oriented explanation.

**Proposition 3: Translation strategy shapes communicative belonging.**

Standardized translation supports parity and consistency, while localized translation supports cultural relevance and community recognition.

**Proposition 4: Digital trust is produced through discourse design.**

Public trust is shaped by linguistic style, platform structure, source attribution, multilingual accessibility, and institutional responsiveness.

## CONCLUSION

This article comparatively analyzed how multilingual public health communication in Canada and Singapore constructs institutional authority, communicative inclusion, and socio-cultural participation in digitally mediated health environments. The findings demonstrate that multilingual health discourse is not merely a vehicle for medical information but a central institutional mechanism for organizing risk, trust, responsibility, and belonging.

Canada and Singapore developed different communicative models. Canada's public health discourse emphasized inclusive explanation, community responsiveness, and contextual adaptation, while Singapore's discourse emphasized centralized clarity, standardized multilingual access, and behavioral coordination. Both models offer important strengths. Canada's approach supports cultural recognition and participatory trust, whereas Singapore's approach supports consistency, clarity, and rapid institutional response.

The theoretical contribution of this article is the concept of multilingual risk mediation. This concept explains how public institutions transform health knowledge into socially meaningful discourse through multilingual policy, translation practice, digital circulation, and audience positioning. The study also contributes empirically by showing how modality, pronouns, directives, translation strategies, and digital structures shape public health communication in multilingual societies.

Institutionally, the findings suggest that effective multilingual health communication requires more than accurate translation. It requires discourse strategies that balance clarity, cultural relevance, institutional authority, and community trust. Educationally, the study highlights the need for health literacy programs that include multilingual digital literacy and critical awareness of institutional messaging.

The study is limited by its focus on official discourse and does not directly measure public reception. Future research should include audience studies, community interviews, experimental testing of translated health messages, and longitudinal analysis of public trust across different health crises. Further comparative work should also examine Indigenous language health communication, migrant health discourse, and AI-assisted translation in emergency communication.

Ultimately, this article argues that multilingual public health discourse is a major field of contemporary language science because it connects linguistic form with institutional action and social survival. In digitally mediated multilingual societies, the ability of public institutions to communicate across languages is inseparable from equity, trust, and collective well-being.

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