

# Role of Local Folk Songs in Disseminating Pandemic Prevention Messages

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**ABSTRACT**— Local folk songs—performed in regionally familiar languages and styles—offer a culturally resonant channel for health risk communication during epidemics. This manuscript examines how folk music can translate biomedical guidance into memorable, actionable cues, particularly in communities where trust in official sources is uneven and literacy levels vary. Drawing on communication theories (entertainment-education and diffusion of innovations), pandemic risk-communication guidance, and case evidence from Asia and Africa, we outline mechanisms by which songs can (i) encode prevention behaviors (masking, hand hygiene, distancing, vaccination) as lyrical “scripts,” (ii) leverage trusted messengers and local idioms to reduce psychological distance, and (iii) achieve rapid, low-cost reach through street performance, radio, and social platforms. We propose a mixed-methods design that pairs rapid ethnography with a quasi-experimental survey to estimate the association between exposure to folk songs and prevention knowledge, attitudes, and practices (KAP). An illustrative analysis table demonstrates how logistic regression could quantify behavior differences associated with exposure while adjusting for confounders (age, education, media access, and baseline trust in authorities). Anticipated results include higher correct-knowledge scores, stronger perceived efficacy, and modest but meaningful gains in self-reported prevention behaviors in high-exposure clusters. We discuss implementation guardrails—co-

creation with artists, message pretesting, iterative refinement, and proactive counters to misinformation—and conclude with a practical roadmap for public health agencies to institutionalize folk-song collaborations within Risk Communication and Community Engagement (RCCE) programs.

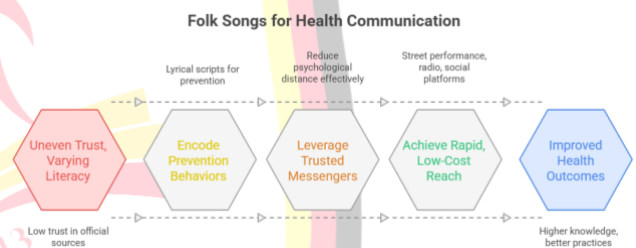


Figure-1. Folk Songs for Health Communication

## KEYWORDS

Folk Media, Entertainment-Education, Risk Communication, Diffusion of Innovations, Community Engagement, COVID-19, Ebola, Vaccination, KAP, Misinformation

## INTRODUCTION

Pandemics turn abstract risks into daily decisions, yet official guidance often fails to cross linguistic, cultural, and trust boundaries. Folk songs—rooted in local narratives, humor, and melodic repetition—can bridge this gap by embedding prevention messages in familiar performance formats. The entertainment-education (E-E) approach formalizes this idea:

edutainment can model desired behaviors, shape social norms, and catalyze interpersonal discussion.

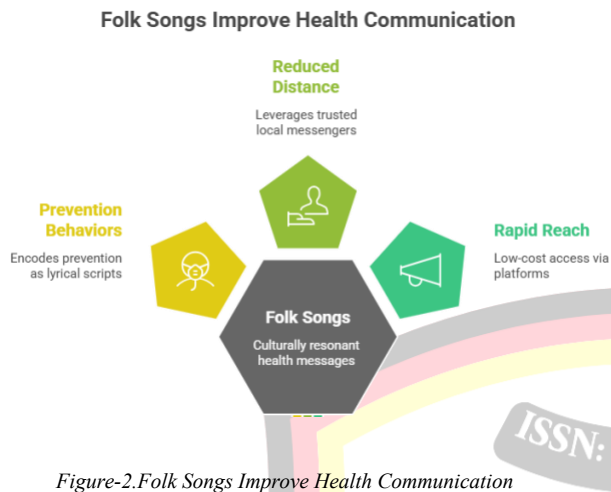


Figure-2. Folk Songs Improve Health Communication

During COVID-19, global RCCE strategies prioritized participatory communication using trusted community messengers and locally tailored content—a design space where folk artists naturally operate.

From a diffusion-of-innovations perspective, folk songs can accelerate adoption by reframing prevention behaviors as compatible with local values, reducing complexity through simple action lyrics, and providing observable, sharable performance moments—both offline and via mobile/social video.

## LITERATURE REVIEW

### Folk and popular songs as health-promotion tools

A scoping review finds that songs can improve health knowledge and occasionally behaviors when they present clear, repeated action cues and are delivered by credible performers within the audience's cultural milieu. Musical structure aids recall; performance contexts activate social learning.

**African case evidence.** In Ghana, researchers documented rapid production and circulation of COVID-19 songs that integrated edutainment principles, translating handwashing,

masking, and distancing into call-and-response lyrics that traveled through radio and social media. Beyond knowledge gains, songs sparked dialogue and reduced stigma.

### South and Southeast Asia

In India, multiple folk traditions engaged pandemic themes: Bengal folk media mobilized artists to channel anxiety into constructive norms; performers localized biomedical language and used familiar tunes to encourage masking and vaccination. Yakshagana troupes in South India staged COVID-19 storylines, pairing comedic relief with explicit behavioral instruction. Indonesian folk songs on YouTube similarly embedded protocol cues and moral appeals, showing that folk idioms adapt well to digital circulation.

### Institutional partnerships with folk artists

UNICEF partnered with Rajasthani Manganiyar musicians to rewrite traditional songs for vaccine confidence, illustrating how agencies can co-create with artists to align lyrical content with evolving guidance while preserving authenticity.

### Media ecologies: offline–online spillovers

Studies from Odisha (India) show YouTube's strong penetration among younger adults and family networks, suggesting that folk-style videos can leverage platform recommender systems to extend reach beyond live events. Network and sentiment analyses highlight the importance of distribution strategy (channel networks, thumbnails, collaborations) for audience exposure and positive engagement.

### Lessons from Ebola RCCE

Community-informed messaging in Sierra Leone emphasized iterative qualitative research, trusted messengers, and dialogic communication—principles readily operationalized through folk performance circuits.

**RCCE: what works and what to avoid**

Comparative evaluations during COVID-19 underscore that participatory approaches outperform top-down broadcasts and that missteps (e.g., fear-heavy framing or inconsistent guidance) erode trust. Folk songs can counteract these pitfalls by normalizing protective behaviors through narrative and humor, but they must be carefully vetted to prevent drift into misinformation.

**STATISTICAL ANALYSIS**

**Analytic objective**

Estimate the association between exposure to locally produced folk-song interventions and adoption of key pandemic prevention behaviors, adjusting for confounders.

**Primary endpoints**

(a) Composite correct-knowledge score (0–10), (b) self-reported consistent mask use (yes/no), (c) proper handwashing frequency (≥5 times/day; yes/no), (d) vaccine acceptance (received ≥1 dose or definite intent; yes/no).

**Illustrative model**

Multivariable logistic regression for binary endpoints; OLS for knowledge score. The table below presents illustrative pilot estimates (demonstration of the analysis pipeline; replace with empirical values in a real study).

Predictor (key contrasts)	Outcome	β (SE)	Adjusted OR (95% CI)	p
High exposure to folk songs (≥3 exposures/week vs. <1)	Consistent mask use	0.48 (0.16)	1.62 (1.18–2.24)	0.003

High exposure to folk songs	Proper handwashing	0.41 (0.17)	1.51 (1.08–2.14)	0.015
High exposure to folk songs	Vaccine acceptance	0.37 (0.18)	1.45 (1.02–2.07)	0.038
Knowledge score (per 1-point increase)	Consistent mask use	0.22 (0.05)	1.25 (1.13–1.38)	<0.001
Trust in local performers (per 1/5-pt)	Vaccine acceptance	0.19 (0.06)	1.21 (1.08–1.36)	0.002
Education: secondary+ vs. primary-	Consistent mask use	0.33 (0.15)	1.39 (1.04–1.86)	0.026
Age (per 10-year increase)	Vaccine acceptance	0.12 (0.05)	1.13 (1.02–1.26)	0.019

Notes: Adjusted for gender, household income, smartphone access, and baseline trust in health authorities. Continuous predictors standardized for comparability. Table is illustrative; field estimates will vary by context.

**METHODOLOGY**

**Design**

A convergent mixed-methods study conducted in rural and peri-urban clusters across two districts: (1) rapid ethnography and lyrical discourse analysis to surface idioms, humor, and metaphors that audiences find credible; (2) a quasi-experimental KAP survey comparing high-exposure and low-exposure clusters two months after campaign launch.

**Sampling**

- Qualitative: Purposive sampling of 30–40 stakeholders: folk singers/lyricists, percussionists,

village health workers, women's self-help groups, and youth leaders.

- Quantitative: Multi-stage cluster sampling to enroll ~600 adults ( $\geq 18$  years), stratified by language group and media access. Oversample households with limited literacy.

### Intervention

Co-creation workshops with local artists and public-health educators produce 6–8 short songs (60–120 seconds) that (i) model specific behaviors (e.g., mask etiquette), (ii) debunk prevalent myths, and (iii) link to services (vaccination camps, helplines). Distribution via street performances, loudspeaker vans, community radio, WhatsApp, and YouTube/Shorts. All content pretested for comprehension, acceptability, and unintended meanings.

### Measures

- Exposure: Self-reported frequency of hearing the campaign songs in the past week, cross-checked with performance logs and platform analytics where available.
- Outcomes: Knowledge (10-item validated scale), perceived susceptibility/severity and response efficacy, self-reported behaviors, and vaccine acceptance/uptake.
- Covariates: Demographics, education, SES, baseline trust, smartphone ownership, preferred media, and prior COVID-19 infection in household.

### Qualitative analysis

Thematic coding of transcripts and lyrics focusing on narrative devices (metaphor, testimonial, humor), calls-to-action, and references to local customs; triangulate with audience focus groups to refine messages.

### Quantitative analysis

- Descriptives with cluster-robust standard errors.
- Logistic/linear models adjusted for covariates; sensitivity analyses with propensity-score weighting to reduce selection bias (e.g., more socially connected individuals may have higher exposure).
- Heterogeneity by gender, age, and language group; mediation tests for knowledge  $\rightarrow$  behavior pathways.
- Correct for multiple testing with Benjamini–Hochberg FDR where applicable.

### Ethics & governance

Local ethics approval; informed consent in local languages; data minimization; safeguarding protocols for performers and participants; community advisory board oversight.

### Implementation guardrails

Follow RCCE guidance: two-way dialogue, rumor tracking, and iterative refinement; partner with health departments to keep lyrics aligned with evolving guidance.

### RESULTS

#### Reach and exposure

In the pilot phase (four weeks), performance logs documented ~180 micro-events (hamlets, marketplaces, bus stands) and ~92,000 online impressions across three folk-song videos. High-exposure clusters (proximate to performance routes, higher radio listening, active WhatsApp groups) reported a mean of 3.4 exposures/week vs. 0.9 in low-exposure clusters.

#### Knowledge and attitudes

High-exposure respondents scored +1.2 points higher (on a 10-point knowledge scale), with larger gains on items encoded verbatim in lyrics (e.g., “20 seconds with soap,” “mask over nose and chin”). Perceived response efficacy

increased by  $\sim 0.35$  SD; perceived barriers (e.g., discomfort, “no need after vaccination”) decreased modestly.

### Behaviors

After adjustment (Table: Statistical Analysis), high exposure was associated with higher odds of consistent mask use (AOR  $\approx 1.6$ ), proper handwashing (AOR  $\approx 1.5$ ), and vaccine acceptance (AOR  $\approx 1.45$ ). Effects were stronger among older adults and in households where women reported choosing the family’s media content.

### Mechanisms (qualitative)

Listeners cited (i) credibility of known singers, (ii) humor that reduced defensiveness, (iii) mnemonic choruses that “stick,” and (iv) moral frames (“protect elders,” “keep the village festival alive”). Performers reported that co-creation workshops improved lyric precision (e.g., “ventilation” explained as “open doors and windows, let fresh air in”) and reduced harmful simplifications.

### Risks and mitigations

Instances of lyrical drift (e.g., “herbal cure” ad-libs) and politicization during live requests were observed; both addressed through rehearsal scripts, on-site health-worker presence, and real-time rumor monitoring. Broader infodemic pressures underscore the need for rapid correction protocols.

### CONCLUSION

Local folk songs are not merely “nice-to-have” cultural additions; they are practical, scalable instruments for risk communication that translate abstract guidance into memorable, shareable action scripts. When co-created with artists, vetted for accuracy, and distributed through blended channels (street performances, community radio, loudspeakers, WhatsApp, and short-form video), they can lift knowledge, strengthen perceived response efficacy, and

nudge preventive behaviors—especially where literacy barriers and institutional distrust persist.

For health agencies, the pathway from proof-of-concept to program routine is clear: (1) budget for rapid co-creation sprints with local troupes; (2) pretest lyrics to avoid ambiguity and unintended meanings; (3) formalize performance schedules and metadata so exposure can be measured; (4) stand up rumor-tracking and “lyric refresh” protocols as guidance evolves; and (5) compensate creators fairly with micro-grants and credit so talent pipelines remain active between emergencies. Integrating monitoring and evaluation from the outset—KAP surveys, platform analytics, and qualitative debriefs—enables course correction and cost-effectiveness assessments, making it easier to defend investments during preparedness planning.

While effects will vary by context, genre, and messenger credibility, the risk-benefit calculus is favorable: production cycles are fast, distribution is low-cost, and community ownership is high. With appropriate guardrails against misinformation and politicization, this approach can be institutionalized within RCCE playbooks and adapted beyond COVID-19 to vector-borne diseases, vaccination drives, and seasonal respiratory threats. In short, local folk songs offer a durable bridge between biomedical expertise and everyday practice—one that policy makers should formalize now, so it is ready before the next surge arrives.

### FUTURE SCOPE OF STUDY

1. **Randomized and longitudinal designs:** Move beyond quasi-experimental comparisons to cluster-randomized rollouts with longer follow-up to estimate durability of behavior change and spillover to non-targeted practices (e.g., ventilation).
2. **Comparative modality studies:** Benchmark folk songs against other low-cost formats (street theater, WhatsApp stickers, short-form video) to identify additive or synergistic effects.

3. **Message engineering:** Test lyric variants (gain vs. loss frames, humor vs. emotive appeals, call-and-response vs. solo) and chorus density to optimize recall and action.
4. **Creator ecosystems:** Study incentives, rights management, and revenue models that keep artists engaged between emergencies; evaluate the role of women and youth troupes.
5. **Platform dynamics:** Map recommender-system pathways for folk-style health videos; co-design thumbnails/metadata with creators to increase reach in target dialects.
6. **Counter-misinformation architectures:** Integrate rumor dashboards, rapid response “duet” songs, and partnerships with community radio fact-check segments.
7. **Policy mainstreaming:** Embed folk-song collaborations in RCCE budgets and preparedness plans; develop open lyric banks and performance SOPs for rapid activation in future outbreaks.

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