



Community Circles and Cells: A method for rapidly engaging communities in risk communication feedback

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Background:

Prominent models in the risk communication and disaster preparedness literature indicate risk communication messages should not take a one-size-fits-all approach, and should instead be crafted and disseminated in a way that is more accessible, understandable, and culturally relevant to unique communities^{1,2,3}. The present research investigates the functionality of a novel communication platform which enables two-way dialogue between risk communicators and diverse communities in order to draft more actionable and salient risk communication messages^{4,5}.

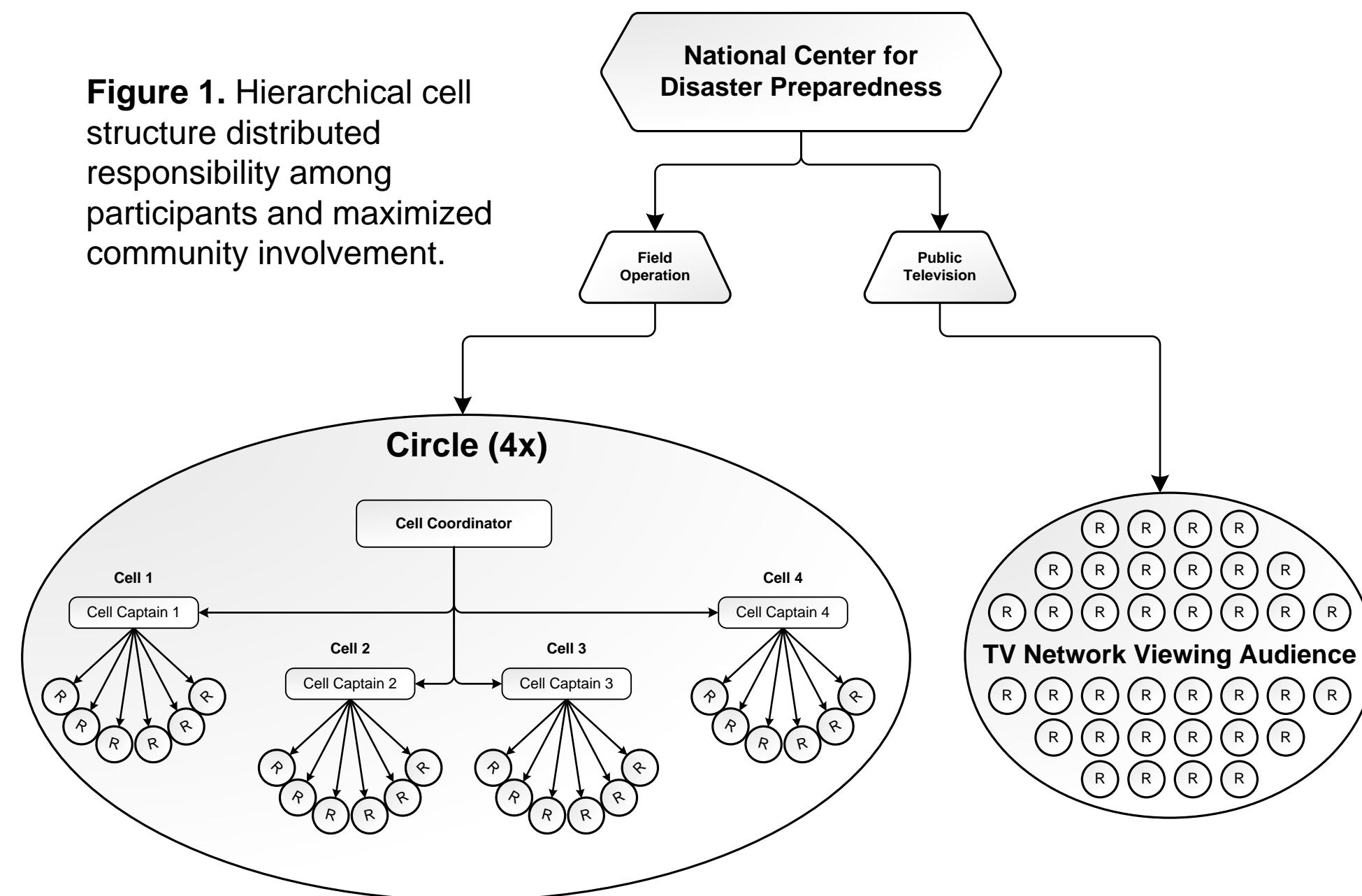
Research Questions:

- What is the potential value of utilizing social networking models to facilitate communication between public health and smaller “cliques” within larger community circles?
- How efficacious is the use of novel technology in facilitating communication between public health officials and traditionally disenfranchised communities?
- How well does the proposed mechanism allow for contextualizing and testing draft risk communication messages among traditionally vulnerable communities?
- What is the role of broadcast media in engaging traditionally hard-to-reach populations such as undocumented immigrants?
- Can the proposed mechanism be used to rapidly disseminate a draft message and gain feedback from the test populations within 24 hours?

Methodology:

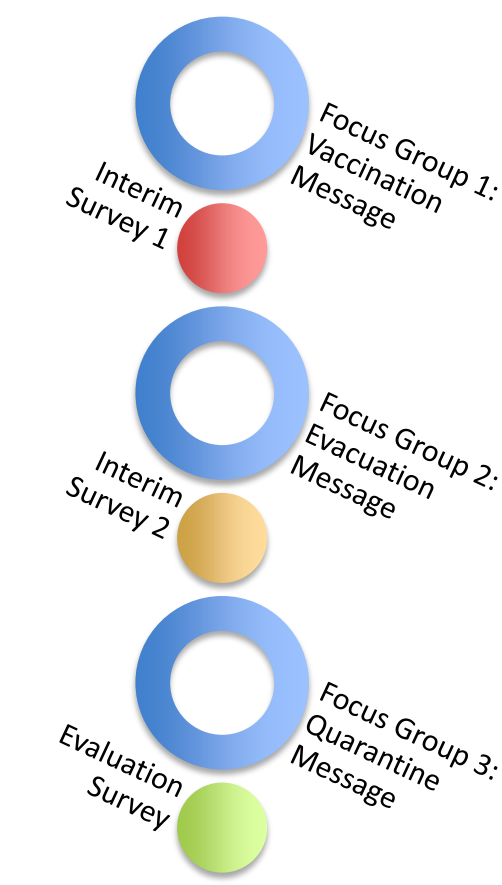
Organization of the “Circles and Cells” Structure: The research team constructed a novel communication platform and tested its utility for involving communities in drafting risk communication messages relevant to their demographic (Figure 1).

Figure 1. Hierarchical cell structure distributed responsibility among participants and maximized community involvement.



Study Population & Recruitment: The four test populations in the study included— (1) urban teens, (2) rural homebound and their caregivers, (3) people living with HIV/AIDS (PLWHA), and (4) undocumented Latin American immigrants. Entry into the communities was facilitated via partnerships with community-based organizations (CBO) active in each area. A representative from each of the four partner CBOs acted as the coordinator of that community “circle,” and helped to recruit captains from the community. Captains then recruited study participants from their own social and civic networks.

Figure 2. Study event timeline



Mechanism Implementation & Novel Technology: The functionality of the hierarchical structure of the communication platform was tested through implementation of three focus group events and two surveys (Figure 2). To test the mechanism’s just-in-time (JIT) capability, the third focus group was run with just 24 hours’ notice. To test the utility of different technologies, focus groups were conducted either in-person, by videoconference, or by teleconference. Through our collaboration with a Spanish television network, the utility of using a live television broadcast to initiate two-way conversation with undocumented Latin American immigrants was tested. Novel technologies such as use of Netbooks, Interactive Voice Response (IVR), and real-time voting through text-message were also explored.

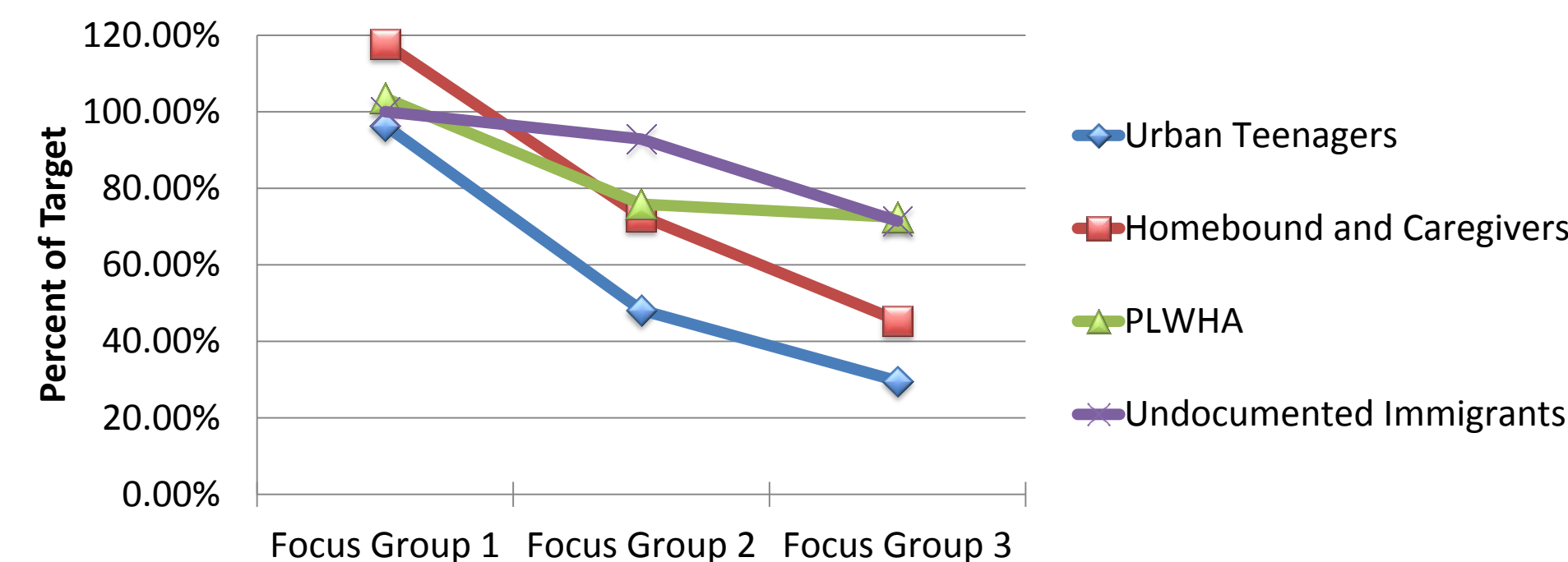
Data Collection: Data collection primarily focused on assessing the functionality and utility of the communication platform. Measurements included (1) the time and effort required to engage communities in the project, (2) differences in respondents’ willingness to participate in the project, (3) the extent to which they contributed, (4) differences in ease of message dissemination, (5) ability to gain feedback for each modification to the communication platform, (6) the pros and cons to different communication methods in the four test communities, and (7) participant feedback regarding the functionality and appropriateness of this mechanism for use in their community.

Results:

Overall:

- 29 unique focus groups were held over 6 months: 15 in-person, 11 videoconference, and 3 as telephone conference calls.
- Significantly more females than males participated in the study, at a ratio of almost 2:1.
- “Total Time to Set up and Activate Structure” – averaged about 3 months.
 - Coordinators took an average of 54 days to recruit captains (Range: 34 to 79 days).
 - Captains took an average of 5 days to recruit the minimum number of cell members (Range: 2-7 days).
- A total of 6 out of 16 captains were able to recruit the target of 6 members to all three of the focus groups. Full attendance at all three focus group events was not significantly associated with the mode of communication for focus groups one and two.
- Focus groups (either in-person or by videoconference) were well received by participants. 99% indicated that focus groups were a good way to get feedback, and felt they had the opportunity to contribute their thoughts during the event.

Figure 3. Participant Retention



Survey Mode & Participation:

- A total of 118 surveys were completed, at over 80% participation for each event.
- Overall, 31% of all surveys were completed over the telephone, and 69% online.
 - 60% of the homebound and caregivers completed the survey by telephone as compared to 25% and 14% in the urban teenager and PLWHA groups, respectively.

Participation & Subject Engagement (Table 1)

- “Participation Score” reflects the combined quantity and quality of participant contributions. The average Participation Score was 15.23, with values ranging from 0.00 to as high as 77.0.
- Participant engagement varied significantly by mode of communication and by focus group event. Participant engagement also varied among the three focus group events.

TABLE 1 : Engagement		n	# Comments per Individual (SD)	Comment Quality (SD) ^d	Total Participation Score (SD)
Circle	Urban Teenagers	48	6.19 (4.74)	1.85 (0.73)***	12.32 (11.91)
	Homebound and Caregivers	72	7.47 (5.82)	2.48 (1.26)	18.07 (16.48)
	PLWHA	72	7.49 (7.13)	1.78 (0.58)	13.63 (13.21)
	Undocumented Immigrants	74	8.34 (6.52)	1.99 (0.65)	15.93 (13.05)
Focus Group	Event 1 ^a	117	6.66 (5.38)***	2.24 (1.19)***	16.22 (15.90)**
	Event 2 ^b	85	10.69 (7.40)	1.66 (0.52)	17.98 (13.38)
	Event 3 ^c	64	4.73 (3.81)	1.88 (0.80)	9.78 (8.88)
Mode	In-Person	120	9.51 (6.68)***	1.99 (1.02)	18.93 (15.04)***
	Videoconference	5	6.56 (5.77)	1.99 (0.94)	13.85 (13.42)
	Conference Call	41	4.22 (3.88)	1.93 (0.90)	8.95 (8.97)
	Call in to Group	100	4.20 (2.95)	1.25 (0.24)	5.70 (4.92)
Gender	Female	170	7.86 (6.32)	2.01 (0.97)	15.92 (14.35)
	Male	95	6.73 (6.03)	1.88 (0.95)	13.69 (13.05)
Total		266	7.48 (6.23)	1.97 (0.96)	15.23 (14.00)

Note: Total participation score is the product of the average number of discrete comments and the average substance measure for each comment. *: p<0.05; **: p<0.01; ***: p<0.001. ^aRefers to the pandemic influenza vaccination scenario. ^bRefers to the evacuation and reunification scenario. ^cRefers to the just-in-time isolation and quarantine scenario. ^dAverage substance measure is based on a raw score of 0-5 with increasing quality of comment. ANOVA tests were used to compare between group differences.

Conclusions:

- It would be possible for a public health department or community-based health organization to implement this Circles and Cells mechanism with one full-time staff member devoted to it.
- When utilizing this structure, a more consistent/frequent engagement would increase participant retention.
- Capitalizing on existing support groups and CBOs with regular social gatherings may result in more continuous participation throughout project such as this.
- In-person focus groups, while requiring greater resources such as person-time, encourage more detailed and frequent respondent contributions than either videoconference or telephone groups.
- Use of novel technology can be beneficial to the research (i.e. enabling just-in-time discussion, allowing real-time feedback, and reaching large numbers of geographically dispersed people) but there is a learning curve for participants and staff.
- Each community had very different health priorities and diverse opinions about effective risk communication tactics. The Circles and Cells mechanism facilitated entry into these communities, and created an environment conducive to open discussion. The partner CBOs brought an element of credibility and reliability to the project, and was paramount in gaining the confidence of participants.

References:

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