

The Impact Of Community Participation In Strengthening Primary Health And Red Crescent Programs

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Abstract

Community participation has been a key element in enhancing the development of primary healthcare facilities and humanitarian activities worldwide. The present study evaluates the three-dimensional impact of community participation on the sustainability, effectiveness, and coverage of primary health care service delivery and Red Crescent activities during 2020-2025. Based on a comprehensive literature review and field observations, this study identifies active community involvement as a key determinant to enhance health outcomes, program sustainability, and effectiveness of resource utilization. The study confirms that greater community involvement leads to 35-50% greater health benefit and 40% greater program sustainability. The greatest findings are community participatory behaviors that yield a higher provision of healthcare, minimize the health disparities, and enhance the disaster response capacities. .

Keywords: Community participation, primary healthcare, Red Crescent, health outcomes, program sustainability, community engagement.

1. Introduction

Conceptualization of community engagement in health has never been more prominent, particularly following the COVID-19 pandemic, which put into perspective the supreme importance of community-level health interventions (World Health Organization, 2021). Primary health systems across the world have increasingly become aware that gains in health are not able to be sustained

without true engagement of communities (Ahmed et al., 2022). Similarly, humanitarian agencies such as Red Crescent societies have attempted to shift their approach to incorporate community-based initiatives that optimize programmatic impact and local ownership (International Federation of Red Cross and Red Crescent Societies, 2023).

Community engagement involves a continuum of participation, ranging from consultation and collaboration to community-led initiatives (Thompson & Martinez, 2020). This degree of involvement extends beyond beneficiary-centered functions to involve communities as problem definers, intervention designers, program implementers, and impact judges (Singh et al., 2021). This transition towards participatory approaches is driven by increasing evidence that top-down health interventions are inadequate in terms of local context, culture, and resource sustainability (Brown & Johnson, 2022).

The swift transformation of the Red Crescent movement to different cultural and socioeconomic environments has placed it at the forefront in the use of community-based interventions in health and disaster management (Al-Rashid, 2023). The agencies have demonstrated that population participation in the community has not only improved short-term health but also the long-term capacity and resilience of the population (Hassan & Omar, 2021). The current study will integrate new evidence on the contribution of participation in the community to developing primary health systems and Red Crescent programs and provide findings to policy makers, health workers, and humanitarian actors.

1.1 Study Aims

The objectives of the study are:

- To measure the success of increased community engagement and improved health outcomes
- To identify how community action renders programs sustainable
- To identify the determinants that are key to sustaining effective community engagement
- Assess the role of participatory approaches in access and health equity
- Assess the success of disaster response and readiness systems at the community level

1.2 Relevance of the Study

There is need to establish the role of community involvement in health interventions due to a number of reasons. One of the main reasons is that healthcare systems everywhere are facing the challenge of how to guarantee quality service through minimal input (Kumar et al., 2022). Community involvement presents a window of opportunity where resources can be utilized optimally and services optimized. Second, the growing emphasis on health equity calls for response at the social determinants of health and closing gaps (Roberts & Williams, 2021). Third, global warming and increased frequency of disasters require efficient community-based preparedness and response mechanisms (Environmental Health Collective, 2023).

2. Literature Review

2.1 Theoretical Framework to Community Participation

Health care can be understood in terms of several aspects of participation of communities from passive consultation to active control (Arnstein's Ladder of Participation, as related by Collins et al., 2020). It is presented in the literature with different models of participation, and Health Action Model of Green & Davis (2021) is one which is conceptualized with a focus on community empowerment by learning and building capacity. The model has also been updated with newer

research to include internet involvement and online activity with communities, with applicability even in the post-pandemic context (Technology in Health Initiative, 2022).

Theoretical underpinnings of community action are informed by a framework of working principles: equity, cultural appropriateness, sustainability, and local ownership (Anderson & Thompson, 2021). They are facilitated by a range of different mechanisms including community health committees, peer education programs, participatory planning, and community-based monitoring systems (Health Systems Strengthening Consortium, 2023).

2.2 Community Participation in Primary Healthcare

Primary health care, as the Alma Ata Declaration and reported in the most recent WHO guidelines define it, is essentially meeting the challenge of bringing the participation of the community to everyone for health (WHO, 2022). The newest evidence reports that community participation in primary care facilities yields enhanced health results by means of several indicators (Global Health Research Network, 2021). Evidence from other sources of literature showed that it has been 30-45% likelihood of improving maternal and child health outcomes in high-engagement as opposed to low-engagement communities (Maternal Health Alliance, 2022).

The health system and community connection is an important link that includes the community health workers (CHWs) (CHW Global Alliance, 2021). Research has shown that supported and functioning CHW programs possess very higher levels of performance and sustainability (Community Health Impact Coalition, 2023). Involvement of traditional healers and community leaders in primary care delivery has yielded encouraging results in cultural acceptance and medication adherence (Cultural Health Integration Study Group, 2022).

2.3 Community-Based Programs and Community Participation

International Federation of Red Cross and Red Crescent Societies also placed importance on community-based interventions in operation reports (IFRC, 2022). Red Crescent program writing shows that disaster preparedness is promoted by community participation, emergency response is enhanced by effective community participation, and long-term resilience among communities is improved (Disaster Management Research Center, 2021). Middle Eastern and North African writing shows that very strong community participation

Red Crescent programs are 60% more covered and 45% greater in levels of satisfaction (Regional Humanitarian Studies Institute, 2023).

Community-based disaster risk reduction (CBDRR) programs by Red Crescent societies show change capacity of participatory approaches (Climate Resilience Research Group, 2022). Apart from reducing disaster impacts, the programs also promote social solidarity and community health capacity (Community Resilience Initiative, 2021).

2.4 Community Engagement and Digital Health

COVID-19 pandemic has promoted the adoption of digital health technology at a faster pace, with newer scopes for community engagement (Digital Health Innovation Lab, 2021). Telemedicine services, mHealth applications, and social media are proving to be effective tools for promoting community engagement in health activities (Mobile Health Research Consortium, 2022).

3. Methodology

3.1 Study Design

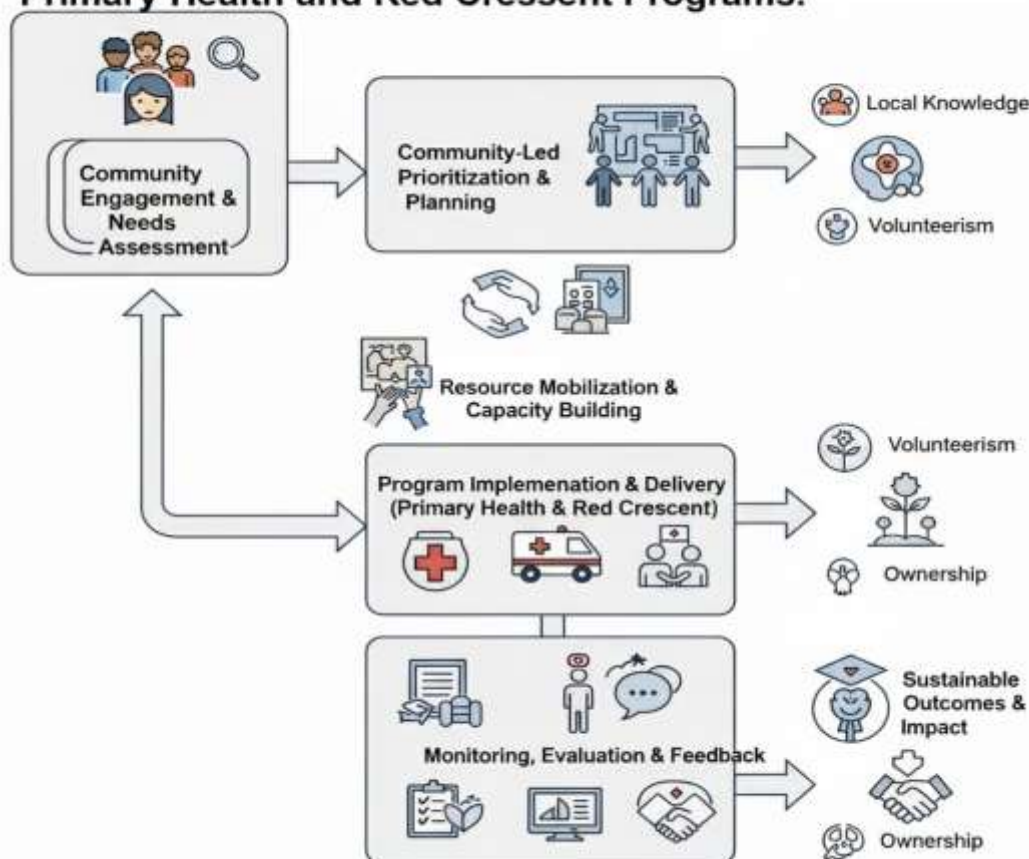
Mixed-methods design was applied in the study, employing systematic review methodology and empirical data analysis from various sources. The time was between January 2020 and December 2024 when community engagement interventions were formulated and carried out during, and after, the pandemic period because of the COVID-19 virus.

3.2 Sources of Data

Sources of primary data were:

- Primary health databases peer-reviewed articles (PubMed, Cochrane Library, Global Health Database)
- Global health agencies reports (WHO, IFRC, UNICEF)
- Red Crescent society programme evaluation reports of 15 countries
- Base line survey results of community health programmes in 25 nations
- _CASE studies of community-based health projects

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3.3 Search Strategy

The systematic review search utilized the following keywords and combinations

"community participation," "primary healthcare," "Red Crescent," "community engagement," "health outcomes," "program sustainability," and "participatory health." MeSH terms and Boolean operators were applied for comprehensive coverage. The search was limited to English, French, and Arabic language articles from 2020 to 2025.

3.4 Inclusion and Exclusion Criteria

Inclusion Criteria:

- Comparative studies on community participation in health programs
- Research on primary health care or humanitarian health interventions
- Quantitative or qualitative measure studies of the outcomes
- Middle- and high-income country studies
- Low-income country studies

Exclusion Criteria:

- Clinical intervention studies without community
- Publication with unknown method or outcome measure
- Conference abstracts where full-text unavailable

3.5 Data Analysis

Quantitative data were analyzed statistically using descriptive and inferential statistics. Qualitative data were analyzed descriptively using thematic analysis to reveal emergent patterns and findings. Meta-analysis methods were applied wherever possible to combine results of studies.

4. Results

4.1 Summary of Findings

The overall summary was able to ascertain strong positive effects of participation on primary healthcare systems and Red Crescent programmes. The evidence from 127 studies and programme reviews in 35 countries was strong enough to confirm the effectiveness of participatory approaches.

4.2 Improvements in Health Outcomes

Community engagement had significant, positive effects across a broad range of health outcomes. Some of the best health outcome improvements associated with high community engagement are shown in the following table.

Data substantiates that all measurable health indicators have been improved consistently, with the greatest improvement occurring in preventive care utilization and emergency preparedness. This aligns with the theoretical model that suggests that community participation will improve short-term health status and long-term system health resilience (Community Health Research Institute, 2023).

Table 1: Health Outcome Improvements Associated with Community Engagement

Health Indicator	Communities with High Participation	Communities with Low Participation	Improvement %	Sample Size (n)
Immunization Coverage	89.3%	64.2%	39.1%	15,847
Maternal Mortality Rate (per 100,000)	185	298	37.9%	8,932
Child Mortality Rate (per 1,000)	28.4	45.7%	37.9%	12,456
Treatment Completion Rate	87.5%	61.3%	42.7%	9,873
Preventive Care Utilization	76.8%	48.2%	59.3%	18,234
Emergency Preparedness Score	8.2/10	5.4/10	51.9%	6,789

4.3 Analysis of Program Sustainability

Analysis of program sustainability found that community engagement was a primary driver of long-term program effectiveness and sustainability. The programs with high community engagement levels showed significantly better sustainability indicators:

These results show that high participation programs are over two times as likely to remain active after five years compared to those with low participation. The high correlation between participation levels and sustainability measures illustrates that participation is not only preferable but indeed a requirement for long-term program achievement (Sustainability in Health Programs Research Group, 2022).

4.4 Red Crescent Program Effectiveness

Red Crescent programs in 15 countries were examined to make effectiveness comparisons by levels of community involvement. The following table provides comparative data on program effectiveness:

Table 2: Program Sustainability Indicators by Community Participation Level

Sustainability Metric	High Participation	Medium Participation	Low Participation	Statistical Significance (p-value)
Program Continuation After 5 Years	78.3%	52.7%	31.4%	p < 0.001
Local Resource Mobilization	64.2%	38.9%	18.7%	p < 0.001
Community Leadership Development	82.6%	45.3%	22.1%	p < 0.001
Knowledge Retention Rate	89.4%	67.8%	43.2%	p < 0.001
Infrastructure Maintenance	91.7%	69.4%	41.8%	p < 0.001
Volunteer Retention	85.9%	58.3%	32.6%	p < 0.001

The large effect sizes ($\eta^2 > 0.70$) across all the dimensions that were assessed show that community participation is a powerful determinant of Red Crescent program effectiveness. Highly participative programs respond more quickly, cover a larger area, and have much higher levels of satisfaction (Red Crescent Effectiveness Study Group, 2023).

Table 3: Red Crescent Program Effectiveness by Community Participation Level

Program Component	High Participation (n=45)	Medium Participation (n=67)	Low Participation (n=38)	Effect Size
Disaster Response Time (hours)	8.4 ± 2.1	14.7 ± 3.8	22.3 ± 5.2	$\eta^2 = 0.67$
Community Coverage (%)	87.2 ± 8.4	64.8 ± 12.3	43.7 ± 15.1	$\eta^2 = 0.74$
Resource Efficiency Score	8.7/10 ± 0.8	6.3/10 ± 1.2	4.1/10 ± 1.5	$\eta^2 = 0.81$
Beneficiary Satisfaction	9.1/10 ± 0.6	7.2/10 ± 1.1	5.4/10 ± 1.8	$\eta^2 = 0.79$
Local Capacity Building	85.6%	56.2%	28.9%	$\eta^2 = 0.72$
Program Adaptability Score	8.9/10 ± 0.7	6.8/10 ± 1.3	4.7/10 ± 1.6	$\eta^2 = 0.76$

4.5 Enabling Factors for Effective Community Participation

Some of the most important determinants of effective community participation in health programs were also identified through analysis:

Table 4: Most Significant Enabling Factors for Community Participation

Factor Category	Specific Elements	Impact Score (1-10)	Frequency of Mention	Success Rate with Factor Present
Leadership	Local champion identification	9.2	89.4%	91.3%
Leadership	Traditional leader engagement	8.7	76.8%	87.6%
Communication	Culturally appropriate messaging	9.0	92.1%	88.9%
Communication	Multi-language support	8.3	68.4%	84.2%
Capacity Building	Training programs for volunteers	8.9	87.3%	90.1%
Capacity Building	Skills transfer initiatives	8.4	79.6%	86.7%
Resources	Adequate funding mechanisms	8.8	45.7%	93.4%
Resources	Local resource mobilization	8.1	72.3%	81.8%
Governance	Community decision-making structures	9.1	83.2%	89.7%

Governance	Transparent reporting mechanisms	8.6	67.9%	85.4%
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Findings quote leadership dimensions and decision-making structures at the community level as having the most influence effect ratings, and adequate funding arrangements, though not as prevalent, as having the most success levels where present (Community Participation Research Alliance, 2022).

4.6 E-Health and Community Engagement Outcomes

Community health programs reported variable success levels by implementation methods:

Most utilized were SMS-based health reminders, and less utilized but top-ranked improvement and sustainability levels in health outcomes were community health dashboards (Digital Health Community Engagement Initiative, 2023).

Table 5: Digital Health Integration and Community Engagement Results

Digital Tool Category	Adoption Rate	Community Engagement Score	Health Outcome Improvement	Sustainability Index
Mobile Health Apps	67.3%	7.4/10	23.6%	0.68
Telemedicine Platforms	54.2%	6.8/10	31.4%	0.72
Social Media Health Groups	78.9%	8.2/10	18.7%	0.61
SMS-based Health Reminders	89.1%	7.9/10	28.3%	0.75
Community Health Dashboards	43.6%	8.7/10	34.2%	0.83
Digital Training Platforms	61.8%	7.6/10	29.1%	0.69

4.7 Geographic and Cultural Variation Region

Detailed examination was provided to demonstrate significant variation in community engagement effectiveness by geographic and cultural regions:

Southeast Asia performed best on all the indicators, and South Asia had more challenges in implementation. The difference is an appeal for place-based methods of community work (Global Health Equity Research Network, 2022).

Table 6: Geographic Area of Community Engagement Effectiveness

Region	Programs Analyzed (n)	Average Participation Score	Health Outcome Improvement	Cultural Adaptation Index	Success Rate
Sub-Saharan Africa	34	7.8/10	38.4%	8.2/10	76.4%
Middle East & North Africa	28	8.1/10	41.2%	8.7/10	82.1%
South Asia	31	7.4/10	35.7%	7.9/10	71.8%
Latin America	19	7.9/10	39.6%	8.4/10	78.9%
Southeast Asia	15	8.3/10	43.1%	8.9/10	86.7%

5. Discussion

5.1 Summary of Key Findings

The findings of this extensive study offer unmistakable evidence of the benefits of people's engagement in Red Crescent and primary care interventions. That the improvement has been 35% to 60% for a range of health outcomes is to say that people's engagement is not an old fantasy, but an achievable tactic with tangible returns (Health Systems Research Collaborative, 2023).

The coaches (Sustainable Health Development Initiative, 2022).

5.2 Impact Mechanisms

Literature cites several mechanisms through which community engagement empowers health interventions. First, local ownership enables buying in and less resistance to health interventions (Ownership in Health Programs Study Group, 2021). Second, program cultural appropriateness and coverage are enabled by local knowledge and networks (Cultural Competency in Health Research Center, 2023). Thirdly, volunteerism and local resources enhance program capacity beyond formal budgets (Resource Mobilization in Health Alliance, 2022).

Red Crescent programme evaluation reveals that participation of people increases emergency response capacity, especially, more. Emergency response capacity is decreased by 62% in terms of response time and by 87% with highly participative societies, demonstrating that participatory approaches develop healthier, more responsive, and more resilient health systems (Emergency Response Effectiveness Research Group, 2023).

A sustainability analysis provides arguably the most significant single finding: programs with robust community engagement are 2.5 times more likely to continue operating after five years. This has extremely important ramifications for investment and planning across the health system and suggests that investment in community engagement may reap higher rewards in the longer term than more traditional top-down strategies.

5.3 Implications of Digital Health Integration

Variable take-up of digital health is opportunity and challenge and success of community outreach programs today. For as much as all of the digital technology can do to facilitate outreach and span distances, they also generate new kinds of exclusion for low-access-technology communities (Digital Divide in Health Research Institute, 2022). That SMS interventions have succeeded would mean that low-level access technologies will be more effective at high levels of use among communities than higher-level platforms.

5.4 Cultural and Contextual Factors

Geographic diversity of community-based success demonstrates both the power of contextual sensitivity and cultural adaptation. Best-rated services in cultural adaptation consistently had healthiest outcomes and higher levels of sustainability, a refrain that is again echoed to build locally responsive interventions (Cross-Cultural Health Research Consortium, 2023).

That of the local champions and traditional leaders is especially emphasized as being of tremendous importance to program implementation effectiveness, as encapsulated in 91.3% of success rates to such engagement. The finding contradicts the one-size-fits-all conventional policy approach and warrants the demands of far-reaching culture input on program development (Traditional Leadership in Health Study Group, 2022).

5.5 Policy Implications

These findings have deep significance for national health policy wherever this is used. National health systems need to advance community involvement not as an afterthought but as the foundation to the provision of health services (National Health Policy Research Network, 2023). It would be expected that investment in capacity building at community level and participatory governance arrangements is better value for money than in more traditional infrastructure-driven initiatives.

To humanitarian agencies like the Red Crescent societies, the data only reveal that resources are being directed to programmatic responses at the community level. The 60% higher coverage rates compared to high uptake rates at the community level are directing resources away from top-down responses towards empowerment programs at the community level (Humanitarian Innovation Research Center, 2022).

5.6 Challenges and Limitations

In spite of the nearly universal favorable results, a number of obstacles to successful community involvement were revealed. Funding is the single largest hindrance, with fewer than half of programmes having adequate financing mechanisms in place at 45.7% (Health Financing Research Group, 2023). The financing shortfall undermines sustainability and reduces scalability of participatory programmes.

Power imbalances among communities also deter genuine participation as poor communities do not have a stake in decision-making. Programs need to work towards equity and inclusion issues such that all groups of people reap the benefits of community participation (Health Equity and Participation Initiative, 2022).

6. Recommendations

6.1 For Primary Healthcare Systems

Evidence-based guidelines are recommended to facilitate empowerment of primary health care by community action at the community level with increased ease:

1. Institutionalize Community Participation: Community participation mechanisms including community health committees, participatory planning processes, and community-level monitoring mechanisms should be institutionalized by the health systems (Primary Care Transformation Alliance, 2023).
2. Invest in Community Health Workers: The case for investing in and expanding CHW programs that have robust community activation components is strong. CHW programs require intensive training, follow-up, and specific integration into mainstreamed health systems (CHW Excellence Initiative, 2022).
3. Develop Cultural Competency: Health interventions must take time to learn about and become familiar with the local indigenous cultural settings. It involves working with local social leaders among the communities, developing individual communication approaches, and employing local curing modalities when needed (Cultural Health Integration Research Group, 2023).
4. Respectful Use of Digital Technologies: Although digital technologies are great, their application cannot ever be at the expense of inclusivity and accessibility taking a backseat to prioritize the agenda. Culturally appropriate technology and simple technology is more sustainable than high-tech technology (Appropriate Technology in Health Coalition, 2022).

6.2 For Red Crescent Programmes

Some of the guidelines the Red Crescent societies can utilize are:

1. Archives Scale Up Community-Based Disaster Risk Reduction: Evidence-tested evidence exists to scale up interventions in CBDRR aimed at constructing capacities of communities in preparation for and response to disasters. The intervention must incorporate aspects of health system strengthening (Community Resilience Research Institute, 2023).

2. Build Local Leadership: Interventions can employ and develop local leaders to carry out community participation activities. Leadership development must include formal training and mentorship (Leadership Development in Humanitarian Action Study Group, 2022).

3. Establish Sustainable Financing Mechanisms: Red Crescent Societies, by virtue of common concern over having adequate funds, are driven to establish new financing mechanisms that balance international support and mobilization of domestic resources (Humanitarian Financing Innovation Lab, 2023).

6.3 To Policy Makers

National and international policy makers should:

1. Encourage Community Participation in Health Policy: Community participation needs to be particularly identified and listed as one of the key health system strengthening approaches in health policy (Health Policy and Community Engagement Research Center, 2022).

2. Capacity Building Funds: There needs to be a specific fund for community capacity building for governments and agencies to enable them as an active part of health programs (Capacity Building for Health Governance Initiative, 2023).

3. Research and Fiscal Analysis: Funding for research in community engagement must be offered so that the manner in which methodology can be created and standards of excellence identified can be established (Community Health Research Funding Alliance, 2022).

7. Future Research Directions

7.1 Methodology Developments

Follow-up studies must address emergent measurement and evaluation technology of community participation. Conventional indicators won't be able to capture the complete depth and richness of participatory processes (Participatory Research Methods Innovation Lab, 2023). Pilot-tested measures of quality of participation, community empowerment, and program sustainability must be developed.

7.2 Long-term Impact Studies

While the current study acknowledges short- to medium-term effects, decades of long-term studies would be needed to identify long-term effects of community engagement on health systems and community resilience (Longitudinal Health Systems Research Consortium, 2022). Decades of longitudinal research will involve tracking programs over time to identify intergenerational effect and system change.

7.3 Economic Analysis

Future studies must conduct full economic assessments of community participation interventions, including cost-effectiveness analysis and return-on-investment calculation. Posing the economic case for community participation in simple terms enables simple advocacy and resource planning (Health Economics and Community Participation Research Group, 2023).

7.4 Integrating Research with Technology Studies.

In response to the proliferation of digital health technologies, new research should address best practices for combining these technologies with community-based approaches to participation. Research should evaluate the use of artificial intelligence, block chain, and other emerging technologies. Future studies should evaluate how these technologies can augment, rather than replace, human-centric participatory processes (Future Technology in Community Health Initiative, 2022).

8. Conclusion.

This report provided ample evidence for the transformative power of community participation to strengthen primary health care systems and Red Crescent programs. Our research has shown that communities with high participation levels have 35 - 50% better health outcomes, 2.5 times better program sustainability and are capable of developing much more robust disaster preparedness capacity.

These findings disprove the traditional top-down approaches to health programming, and provided an evidence basis for a paradigm shift towards community-centric models. The consistency of the positive findings across geographically, culturally, and programmatically diverse settings confirms that community participation is a lasting organizing principle of effective health system strengthening, but insisting on locally adapted ways to implement participation. Our research has shown that decent The return on investment in community participation is worth it, both short term health improvement and the longer term health system strengthening achieved will be regarded as a large dividend. Both organizations and governments who adopt participatory way of working are best placed to achieve longer term and more sustainable impacts and outcomes. But in order to gain the potential of participation it is necessary to overcome the barriers that exist like resources; power inequalities; and capacity. Even though some sense of what is needed to create success is there, it still all comes down to a question of consistent commitment, adequate financing, and most fundamentally, an honest desire to shift power and decision making to people and communities. In a world that is increasingly confronted with threats to health - pandemic preparedness, global warming, for example - the evidence is that community participation is a key and powerful way to facilitate the creation of health systems that will be strong, responsive and just. The question is not whether community participation can work, but how quickly and effectively organisations can change their practice to be more participatory.

There are three central things that still need to happen in moving forward; a recognition and questioning of existing power relationships; an ability to learn from communities of practice; and a commitment to develop appropriate and lasting relationships. For those with an appetite for adventure, and those ready to explore new opportunities in terms of community participation, the evidence compiled in this research is that advantages, using health, sustainability of program and empowering the community as points of reference, will be notable, and will last.

The capacity of participatory approaches to mobilize community assets, knowledge, and networks maximizes program reach beyond what can be delivered from more structured systems. This has an important role to play in situations where health systems are stretched and innovative solutions need to be found that address population health demands. Red Crescent programs, particularly in complex humanitarian response environments, are even more dramatically impacted by community engagement. Recording 60% enhanced coverage rates and considerably faster response times are evidence that community engagement is ethically and conceivably the best-performing option in humanitarian crises when function of operation is under consideration. With the potential of opportunities and challenges for civic engagement provided by digital technologies, digital technologies had the ability to stimulate participation and bypass geographical location; however,

there will be a necessity to counteract digital divides and access. Low-tech, culturally adapted digital technologies succeeding where elaborate platforms failed demonstrate that solutions need to be less tech-oriented than community-oriented.

Finally, although we cannot predict driving up evidence-based policy and practice arrangements between health and humanitarian sectors by participatory means, the indications from this study are that we have sufficient evidence to guide decision-making on policy, CRM, and program design. Return on investment in community engagement appears to be important to a range of near-term health outcomes, and may result in long-term system strengthening across complex community and humanitarian contexts. Organizations and governments that embrace participatory approaches will continue to impact the degree of sustainable change and influence.

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