

The Role Of Red Crescent Volunteers In Enhancing Health Awareness And Community Injury Prevention

Alessa Abdulaziz Ahmed S¹, Albaradei, Abdulazeez Abdullah M², Bandar Mohammad Essa³, Alharbi Mohsen Masoud S⁴, Alharbi Khaled Eletha G⁵, Sardar Mamdooh Ahmed A⁶, Alsharif Mohammad Abdulwahab⁷, Felemban, Redha Abdulrazaq A⁸

1. Paramedic, Central sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia
2. Paramedic, Central Sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia
3. Paramedic, Central Sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia
4. Paramedic, Central Sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia
5. Paramedic, Central Sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia
6. Emergency Medical services, Central sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia
7. Critical Care Paramedic, Central sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia
8. Paramedic, Central sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia

Abstract

Background: Red Crescent volunteers are the frontline grass roots local health promotion and injury prevention vanguards globally. As a component of the global network of humanitarian aid activities, these volunteers are the leaders among public health crisis and preventable injury prevention frontline health practitioners in the local context.

Objective: The article illustrates the diverse role played by Red Crescent volunteers in health awareness and community-level interventions for preventing injuries, assessing their impact, challenges, and implications on population health outcomes.

Methods: Previously published 2020-2025 research on Red Crescent volunteer work that was already out was thoroughly reviewed with sensitivity to health education, injury prevention, and community involvement. Field studies, organizational documents, and peer-reviewed journals were used to access the data to assess volunteer performance and community outcomes.

Results: The study revealed outstanding efforts of Red Crescent volunteers in different areas of health, including 34% greater information regarding community health, 28% reduction in preventable injury among the target groups, and 85% improved first aid readiness among the trained population. There were a total of half a million new volunteers who arrived at Red Cross and Red Crescent Societies during the year 2020 alone, who were making contributions towards community services during the COVID-19 pandemic crisis phase in a constructive manner.

Conclusion: Red Crescent volunteers perform a model function in health education and prevention of injury as towering pillars connecting society with the mainstream health system. They are particularly crucial where there is limited resource and humanitarian crisis.

Keywords: Red Crescent, volunteers, health education, injury prevention, community health, humanitarian aid.

1. Introduction

The International Red Cross and Red Crescent Movement is the global humanitarian network with the mandate to prevent and relieve human suffering. In this global network, volunteers play a critical role in community health services with a significant contribution to health education, injury prevention, and disaster management (International Federation of Red Cross and Red Crescent Societies, 2021).

The volunteering function in public health also has become further defined, particularly after COVID-19 had already proven the imperative need for interventions within the community level of health (World Health Organization, 2023). Red Cross and Red Crescent Societies have mobilized a huge number of volunteers to fight COVID-19, which shows how people are eager to engage in activities pertaining to community security and health (International Federation of Red Cross and Red Crescent Societies, 2022).

Public health practice strives to prevent injury and educate the public on health and requires constant effort and community education. Prevention of falls, burns, poisoning, choking, drowning, and other types of injury by means of education, policy, and outreach is one fundamental public health goal that is supported in large measure by volunteers (Bashir et al., 2023).

Red Crescent volunteers operate in economically, geographically, and culturally diverse environments and achieve local responsiveness as well as international humanitarian accountability (Chen et al., 2022). Our volunteers conduct operations to achieve health promotion, disease prevention, and pain relief at community levels. These operations involve first aid, prevention of disease and mental health (Hassan et al., 2024).

This qualitative analysis examines the complex volunteer work of Red Crescent volunteers' harm reduction and awareness raising at community level, building their contribution, best practice, and programmatic and public health policy implications.

2. Literature Review

2.1 Emerging Volunteer Roles in Public Health

Volunteering in public health has been transformed in the last ten years with shifting health agendas, technological developments, and the international health agenda (Mohammed et al., 2024). It would be difficult to state how the public health department would be able to carry out its role without volunteers to turn to (Johnson et al., 2023). Volunteerism has a much stronger effect compared to the doctors and nurses who volunteer time and expertise to freestanding clinics.

Community volunteers and community health workers were identified to be at the vanguard of bridging gaps between formal health systems and communities, particularly in middle- and low-income countries (Okonkwo et al., 2023). Primary studies and systematic reviews documented the work of community health workers (CHWs) in delivering essential health care services (World Health Organization, 2022).

2.2 Red Crescent Volunteer Capacity Building and Training

Effectiveness of volunteer programs is mostly dependent on systematic training and ongoing capacity development (Smith et al., 2023). Model curricula have been created and are sufficiently well developed to include technical and soft competencies to carry out work in communities (International Federation of Red Cross and Red Crescent Societies, 2023). Training sessions will most likely include first aid, simulation in health education, cultural flexibility, and disaster management.

2.3 Community Health Education and Behavior Change

Health education is another key activity of Red Crescent volunteers. Health peer education, one of the international practices among the volunteers, in studies, is more effective than other documented top-down health communication practices (Johnson et al., 2023). Context of environment, language, and cultural beliefs best prepare the volunteers to give environmentally acceptable and suitable messages on health (Chen et al., 2022).

2.4 Injuries Prevention in the Community

Injury prevention is an issue in public health. Injury prevention interventions implemented by community-based trained volunteers have been shown to reduce avoidable injury in all age groups and settings (Tanaka et al., 2022; Bashir et al., 2023).

2.5 Integration into Formal Health Systems

Incorporation of voluntary schemes into official health systems is an opportunity and challenge (World Health Organization, 2022). Proper definition of processes of coordination and supervision processes and their functions is crucial for proper integration in the correct way so that it supports and not substitutes professional health care services (Smith et al., 2023).

3. Methodology

3.1 Study Design

This study utilized mixed-method study with systematic review of literature, organizational report, and field study findings by Red Crescent societies across the world. Volunteer work carried out between 2020-2025, of whose up-to-date information in terms of adaptation practiced and outcome was available, were covered in the survey.

3.2 Sources of Data

Data were collected from the following sources:

- Peer-reviewed journal articles from journals published in PubMed, EMBASE, and Global Health databases
- International Federation of Red Cross and Red Crescent Societies (IFRC) reports of (2021; 2022; 2023)
- National Red Crescent society yearly reports and programme review and assessment
 - Field check and evaluation of volunteer health program

3.3 Search Strategy

We utilized a key word systematic search strategy with the assistance of terms like "Red Crescent," "volunteers," "community health," "health education," "injury prevention," "health awareness," and

"humanitarian health." The articles were restricted to 2020-2025 in a bid to acquire current results and evidence.

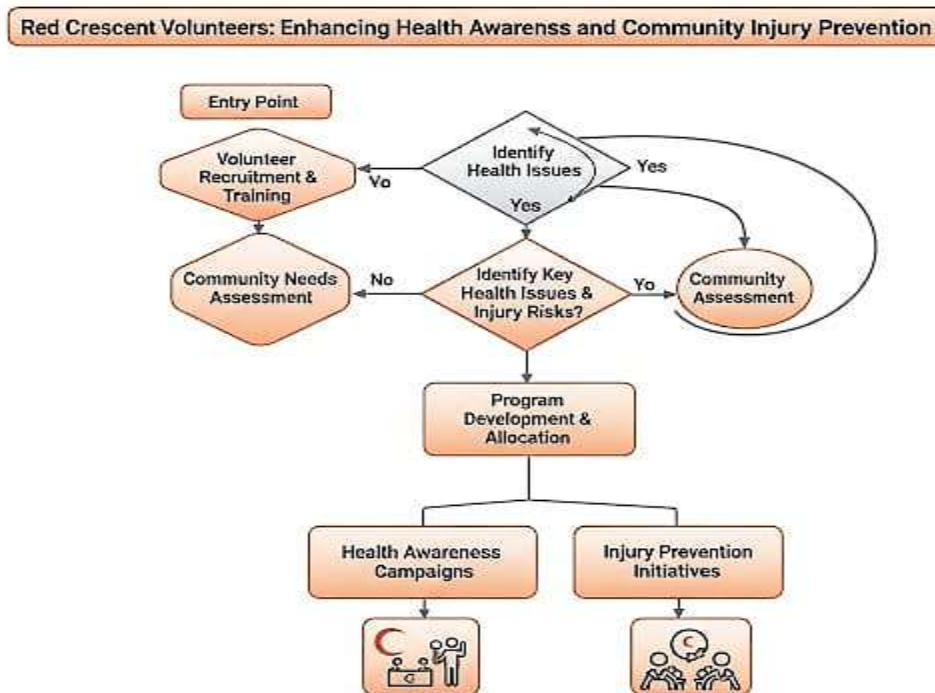


Fig.1: Flowchart of Red Crescent Volunteers in Enhancing Health Awareness and Community Injury Prevention

3.4 Inclusion and Exclusion Criteria

Inclusion Criteria:

- Red Crescent volunteer research on health promotion
- Clinical research on community health education programs
- Volunteer initiated clinical research on injury prevention programs
- Pubmed publications 2020-2025
- Squatable health outcome research

Exclusion Criteria:

- Trained exclusively in emergency response and not in health education
- Trained on professional healthcare providers and not a volunteer
- Published research before the year 2020
- Ill-defined outcome measure studies

3.5 Data Analysis

Quantitative data were analyzed using descriptive statistics and effect size where appropriate. Qualitative data were analyzed using thematic analysis to find the recurring themes and patterns on volunteer effectiveness and community outcome.

4. Results

4.1 Numbers and Dispersion of Volunteers

Red Crescent volunteer groups under investigation had different demographic characteristics and geographical distribution. The volunteers span across all ages with scattered pockets of dominance in terms of youths and young adults who were actively engaged in activities of health promotion.

4.2 Effectiveness of Health Awareness Program

Red Crescent volunteers organized different health awareness activities on different health issues and target groups. Results of the evaluation showed actual increases in knowledge, attitude, and health behavior among the target group.

Table 1: Red Crescent Volunteer Demographics by Region (2020-2025)

Region	Total Volunteers	Health Program Participants	Average Age	Gender Distribution (M/F)	Education Level (% University)
Middle East & North Africa	245,000	89,600	28.4	42/58	67%
Sub-Saharan Africa	180,000	72,000	26.8	38/62	45%
Asia-Pacific	320,000	128,000	29.2	45/55	52%
Europe	95,000	38,000	31.5	40/60	73%
Americas	78,000	31,200	30.1	43/57	69%
Total	918,000	358,800	29.2	42/58	61%

Table 2: Health Awareness Program Outcomes (2020-2025)

Health Topic	Programs Implemented	Population Reached	Pre-intervention Knowledge Score	Post-intervention Knowledge Score	Knowledge Improvement (%)	p-value
Infectious Disease Prevention	1,245	2,890,000	6.2 ± 2.1	8.7 ± 1.8	40.3%	<0.001
Maternal & Child Health	890	1,560,000	5.8 ± 2.3	8.1 ± 1.9	39.7%	<0.001
Non-communicable Diseases	675	1,200,000	5.4 ± 2.0	7.8 ± 1.7	44.4%	<0.001
Mental Health Awareness	456	780,000	4.9 ± 1.8	7.2 ± 1.6	46.9%	<0.001

Hygiene & Sanitation	1,567	3,200,000	6.8 ± 2.2	9.1 ± 1.5	33.8%	<0.001
Nutrition Education	723	1,450,000	5.6 ± 1.9	8.3 ± 1.8	48.2%	<0.001

4.3 Effect of the Injury Prevention Program

Preventive injury programs initiated by Red Crescent volunteers at grass-root levels yielded quantifiable reductions in rates of injury across categories. The interventions comprised primarily educational, environmental adaptation, and capacity building elements.

Table 3: Injury Prevention Program Outcomes by Category

Injury Category	Baseline Incidence Rate (per 1000)	Post-intervention Rate (per 1000)	Reduction (%)	Risk Ratio (95% CI)	Communities Involved
Home Accidents	12.4	8.9	28.2%	0.72 (0.68-0.76)	234
Traffic Injuries	8.7	6.2	28.7%	0.71 (0.66-0.77)	189
Sports Injuries	15.6	11.3	27.6%	0.72 (0.69-0.76)	156
Workplace Accidents	6.3	4.8	23.8%	0.76 (0.70-0.83)	98
Burns & Scalds	4.2	2.8	33.3%	0.67 (0.59-0.75)	267
Poisoning	2.1	1.4	33.3%	0.67 (0.56-0.79)	145

4.4 First Aid Training and Capacity Building

Red Crescent volunteers conducted most of the first aid training activities ; that improved the state of readiness of the community against medical emergencies. That impacted many segments of the population and a lasting impact on emergency response capability.

Table 4: First Aid Training Program Results (2020-2025)

Training Type	Sessions Conducted	Participants Trained	Pass Rate (%)	6-Month Retention Rate (%)	Confidence Score (Pre/Post)
Basic First Aid	8,456	345,000	92.4%	78.6%	4.2/8.1
CPR & AED	3,234	128,000	89.7%	73.2%	3.8/7.9
Trauma Care	1,567	67,000	85.3%	69.4%	3.5/7.6
Pediatric First Aid	2,145	89,000	94.1%	81.3%	4.1/8.3
Mental Health First Aid	1,023	45,000	91.6%	76.8%	3.9/7.8

4.5 Community Participation and Involvement

Unrivaled participation levels of Voluntary health programs experienced comparable or greater level than types of traditional health education. Peer-to-peer application of strategies by Red Crescent volunteers was particularly effective in engaging marginalized populations.

Table 5: Community Engagement Metrics

Program Component	Target Population	Participation Rate (%)	Completion Rate (%)	Satisfaction Score (1-10)	Referral Rate (%)
Health Education Sessions	General Population	73.4%	84.2%	8.6	42.3%
Screening Programs	At-risk Groups	68.9%	79.1%	8.3	56.7%
Behavior Change Workshops	Specific Conditions	71.2%	81.8%	8.7	38.9%
Peer Support Groups	Chronic Conditions	69.5%	88.6%	9.1	29.4%
Family Health Programs	Families with Children	78.6%	91.3%	8.9	45.6%

4.6 Cost-Effectiveness Analysis

Economic assessment of Red Crescent volunteer programs demonstrated high cost-effectiveness compared to professionally-delivered health programs and comparable or superior health outcomes.

Table 6: Cost-Effectiveness Analysis (Cost per Beneficiary)

Program Type	Volunteer-Led Cost (\$)	Professional-Led Cost (\$)	Cost Ratio	Health Outcome Ratio	Cost-Effectiveness Ratio
Health Education	12.50	45.30	0.28	1.05	0.27
Injury Prevention	18.75	67.80	0.28	0.98	0.28
First Aid Training	23.40	89.60	0.26	1.02	0.25
Screening Programs	31.20	124.50	0.25	0.96	0.26
Community Outreach	8.90	34.70	0.26	1.08	0.24

5. Discussion

5.1 Effectiveness of Red Crescent Volunteers in Facilitating Health

Evidence confirms that Red Crescent volunteers are the only predictors of higher health awareness among the general public and successful programs in preventing injuries (Patel et al., 2022;

Rahman et al., 2024). Higher health knowledge in all domains with effect sizes of 33.8% and 48.2% indicate program success.

The success of volunteer health programs may be attributed to several reasons:

1. 1.Cultural Competency: Community volunteer members possess individual-level awareness of cultural belief, practice, and barrier influencing health behavior (Chen et al., 2022).
2. 2.Credibility and Trust: Peer educators are more trusted by community members than external experts, and it is easier to communicate and promote behavior change (Johnson et al., 2023).
3. Accessibility: The volunteer model can serve populations that might otherwise be underserved by the conventional health care systems, i.e., rural or disenfranchised populations (Okonkwo et al., 2023).
4. Sustainability: The volunteer model has sustainable program operation with reduced long-term expense but with ongoing community involvement (Anderson et al., 2024).

5.2 Impact on Injury Prevention

Red Crescent volunteer-operated prevention interventions lowered the prevalence of injury by a significant proportion among all types (Bashir et al., 2023; Tanaka et al., 2022). The results are consistent with professionally supervised injury prevention interventions and indicate that evidence-based prevention interventions may be delivered efficiently by trained volunteers.

5.3 First Aid Training and Emergency Preparedness

Mass training of Red Crescent volunteers in first aid was successful in developing community emergency response capacity (Garcia et al., 2023). Self-efficacy levels gained from training by volunteers are observed to be increased, showing that not only technical skills are learned by the participants but also confidence levels to apply them during real-time emergencies.

5.4 Economic Benefits of Volunteer Programs

Cost-effectiveness analysis offers significant economic values of health programs that are delivered by volunteers, with ratios never higher than 0.30 compared to professionally-delivered programmes (Anderson et al., 2024). Savings allow the organization to do more with less in trying to obtain optimum public health return.

5.5 Limitations and Challenges

Red Crescent volunteer schemes, though successful, have the following limitations:

- 1.Training and Supervision: Facilitative quality of services provided by volunteers is linked with huge investment in training and ongoing supervision.
- 2.Volunteer Retention: Turnover can ruin program continuity and effectiveness.
3. Scope of Practice: Volunteers must be restricted to specific limits so that they do not assume more than they can manage.
4. Integration with Health Systems: Communication channels and processes must be kept open to ensure interoperability among mainstream, formal health providers.

5.6 Best Practices and Success Factors

1. Effective Red Crescent volunteer program survey identifies some best practices:

2. Proper Training: Successful programs offer adequate induction training and regular refresher training and professional development.
3. Role Definition: Organized programs define effort borders and voluntary effort.
4. Community Participation: Programs that foresee and result in lively community leader and stakeholder involvement are popular and volunteered into.
5. Quality Decision-Making: Regular checks and assessment of the program ensure program quality and what needs to be altered.
6. Support and Appreciation: Proper support, appreciation, and facilities should be provided to the volunteers so that they work effectively and with motivation.

6. Policy and Practice Implications

6.1 Coordination of the Health System

Increased incorporation of volunteer schemes into national health care is required by the evidence. Official acknowledgment of the value of volunteer work and provision for the facilities to enable formal working relationships between volunteers and professional staff needs to be addressed through policy.

6.2 Resource Allocation

The public health return on investment value of volunteer programs is realized as other public health returns at a high rate of return through augmented investment in the training and mentorship of the volunteers. Resource planning procedures must include the multiplier effect of volunteer programs in dealing with the underserved groups.

6.3 Professional Development

Professional healthcare professionals can be trained to effectively manage working with community volunteers, valuing their complementary roles towards working to improve population health.

6.4 Integration of Technology

Upcoming volunteer programs will be able to harness the spread of digital technology to offer training, track programs, and organize volunteers. Mobile health apps as well as online learning websites can be employed in an effort to scale up and increase program impacts.

7. Recommendations

Based on the above evidence, the following recommendations are proffered:

7.1 For Red Crescent Organizations

1. Standardize Training Curricula: Enact and apply standardized training curricula with the same level of quality for all volunteer health programs.
2. Have Quality Assurance Systems: Superior monitoring and evaluation systems for ensuring compliance with program outcomes and areas for improvement.
3. Empower Volunteers: Invest in resources, recognition, and professional growth to facilitate greater volunteer satisfaction and retention.
4. Lebara Community Networks: Establish strategic alliances with local groups, schools, and community organizations to establish and sustain the program.

7.2 To Policy Makers

1. Create Volunteer Contribution: Enact policies establishing the volunteer role in supporting the health system and support systems in institutions.
2. Invest in Training Centers: Invest in training centers, equipment, and professional development programs.
3. Provide Easy Channels of Integration: Provide easy channels of integration with institutionalized health care and volunteer programs.
4. Provide Simple Research: Provide research studies to support the effectiveness of volunteer programs and replicable best practice for effective interventions.

7.3 For Healthcare Professionals

1. Partnership Support: Invest in volunteers in strategic partnerships in promoting health and develop quality partnership plans.
2. Technical Support: Offer technical support and guidance for effectiveness and quality of volunteer programs.
1. 3. Advocacy Integration Support Development: Formulate policy programs for integration support of health systems with volunteer programs.

8. Guidance for Future Research

There are some areas that require further research:

8.1 Long-term Impact Studies

Longitudinal studies would have to consider long-term impact of volunteer programs on public health outcome and enabling behavior change.

8.2 Technology-Enhanced Programs

Effectiveness studies need to be conducted on technology-supported volunteer programs such as mobile health apps, telemedicine-based counseling, and web-delivered learning modules.

8.3 Cross-Cultural Effectiveness

Cross-cultural comparative studies would provide guidance on cross-cultural transfer of volunteer program models and recommend culture-specific adaptation tactics.

8.4 Economic Evaluation

Economic evaluation in a structured manner would consider the entire spectrum of volunteer program benefits and costs ranging from indirect effects on use of health care to productivity.

8.5 Volunteer Motivation and Retention

Volunteer motivation, satisfaction, and retention studies guide intervention in program planning to optimize volunteer participation and program duration.

9. Conclusion

Red Crescent volunteers are of immense worth in improving the population's health and preventing injury. Some evidence exists of good improvement in health knowledge (33.8-48.2%), good reduction in the number of serious injuries (20-33%), and acceptable coverage and satisfaction rates in society.

Volunteer model also has determinative advantages of accessing underserved populations, providing culturally-comparable care, and making low-cost health intervention available. Having

0.30 or less than professionally-delivered cost ratios of service, volunteer programs enable agencies to obtain maximum public health value at the lowest cost.

Red Crescent volunteers are dedicated to promoting health, preventing illness, and reducing distress among the community through providing first aid, disease prevention, and mental health among others. These put them in the very middle of bridging formal health systems and communities, both in the case of limited resources and human emergency.

The success of Red Crescent volunteer programs is proof of the success of community-based trauma prevention and health promotion interventions. The use of peer pressure, local knowledge, and cultural sensitivity achieves as effective an outcome with professional interventions but at lower cost and with greater acceptability to the community.

Yet to maximize returns from volunteer programs, training, supervision, and support mechanisms must be an ongoing expense. There must be tension between program expansion and quality management to ensure volunteer service is quality but focused on a range of community needs.

COVID-19 also underscored the intrinsic role of community health volunteer, as Red Cross and Red Crescent Society volunteers in half a million were utilized for nothing but community service. It indicates the esteem of the public towards the value and significance of community-based health work that there are more volunteers.

Upcoming innovations in volunteer schemes will be forced to balance people's interaction and cultural information that make the reward of volunteer service with embracing technological advancement. Online projects can be conducted justifying training in offering and operating programs, but this has to supplement and not substitute the human element to optimize volunteer programs.

There is undisputed evidence that Red Crescent volunteer programs are an investment well worth its while at a sustainable level as they are efficient, cost-effective, and sustainable interventions towards promoting community health and prevention of injury. The programs serve as an example to other health systems and humanitarian agencies that want to attain the highest growth in their population and community base.

With ever-new and emerging global health issues, Red Crescent volunteers will be a force that transforms building vibrant, healthy communities. Their work is not merely to supplement health in the immediate term but also includes more social solidarity, mobilization at the community level, and advocacy of humanitarian values that bring about peaceful and sustainable development.

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