Clear Horizon

VALUE FOR MONEY CASE STUDY

MENTOR Initiative preventing leishmaniasis in Syria

This case study assesses the Value for Money of the MENTOR Initiative (in collaboration with SC Johnson).

Prepared for Grand Challenges Canada

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CREATING HOPE IN CONFLICT: A HUMANITARIAN GRAND CHALLENGE

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The Challenge

Leishmaniasis is a neglected tropical disease that is endemic across northern Syria. Transmission is caused by the bite of an infected female phlebotomine sandfly, a tiny insect vector. Cutaneous Leishmaniasis, the most prevalent type, manifests as skin lesions, ulcers, and nodules, which often lead to scarring and permanent disfigurement. Due to the clothing customs of these communities, people's faces and lower arms and hands are often the most severely affected sites. This leads to social stigmatisation and community exclusion, creating negative psychological impacts that disproportionately affect women and children.[1] If left untreated, less than 5% of the cutaneous leishmaniasis cases can metastasise into mucosal leishmaniasis that may lead to destructive and disfiguring complications of the nasal architecture and airway compromise. Another type, visceral leishmaniasis, although less prevalent, is fatal if left untreated in 95% of patients.[2]

In Syria, where leishmaniasis is endemic and widespread, prolonged displacement has created ideal conditions for transmission. Common forms of vector control, such as internal residual spraying (IRS) and chemically-treated nets, can be challenging to deploy in Syria and other humanitarian contexts, where conflict-affected and/or displaced people may not have permanent dwellings, may be forced to move unexpectedly, and where access may be challenging due to remoteness or conflict.

The Innovation: The MENTOR Initiative

To address the burden of leishmaniasis in Syria, the MENTOR Initiative collaborates with SC Johnson to provide an effective and context-appropriate solution: the deployment of spatial repellents that have proven to significantly reduce sandfly bites and disease transmission. SC Johnson provides two spatial repellants (SR) products (the Shield™ and Guardian™) at no or subsidised cost to the MENTOR Initiative. MENTOR has developed distribution networks to enable Syrians to access spatial repellents at affordable (or no) cost.

Spatial repellents work by disrupting the vector's 'host seeking behaviour' – by spatially emanating an active ingredient, transflurthin, which disrupts the behaviour of the female sandfly to reduce human-vector contact. The Shield™ and Guardian™ are small devices hung in a room and offer 12 months and 1 month's protection respectively. Unlike chemically treated nets or IRS, spatial repellents require minimal user interaction, minimal behaviour modification, and can be transported with a user should they be required to move. Currently, MENTOR provides SR devices for free to the most at-risk communities and is seeking to test the market integration capability through supply chains and enabling local retailers to purchase or receive Shield™/Guardian™ at subsidised costs with the view of generating revenue to be reinvested in Syria's healthcare system.[3]

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Seed funding $488,261 ➔ *Transition to Scale funding* $1,139,402
Operating in: Syria

Value for Money Assessment

The MENTOR Initiative was scored against GCC's Creating Hope in Conflict Value for Money criteria (see the note on methodology at the end of the case study for further information).

- *Economy* — Excellent

The MENTOR Initiative offers a vector-control product that requires less user interaction, is more contextually appropriate, and more affordable than existing alternatives.

- *Efficiency* — Excellent

The MENTOR Initiative's distribution through local supply chains and the closely monitored-price point suggests its lower cost will enable more people to benefit from the innovation.

- *Effectiveness* — Excellent

Shield™ and Guardian™, the SC Johnson products distributed through The MENTOR Initiative, have proven effective at controlling female sandflies, the vectors that transmit leishmaniasis.

- *Sustainable and cost-effective* — Adequate

The MENTOR Initiative has a sustainability plan. There is evidence that this business model has worked elsewhere with other innovations, but it has not yet been tested in full by MENTOR Initiative in this specific context. More evidence will be available at the end of the implementation period in late 2026.

- *Gender Equality and Social Inclusion* — Excellent

The MENTOR Initiative's work has had important, if unanticipated, equity outcomes, particularly around gender equity in decision-making and sense of autonomy for people experiencing displacement.

Economy

Excellent

There is *very strong evidence that the MENTOR Initiative offers a superior product at a more affordable price point.* According to a recent progress report from The MENTOR Initiative, spatial repellents have been found to be comparable or superior to similar alternatives.[4]

Internal Residual Spraying (IRS) is considered the most direct comparator to spatial repellents in humanitarian settings. IRS is effective for 6-9 months and, for a 3-room house or structure, it would cost approximately **$31.34 every 6-9 months** compared to **$6 annually for Guardian™ SR per *year*.**[5]

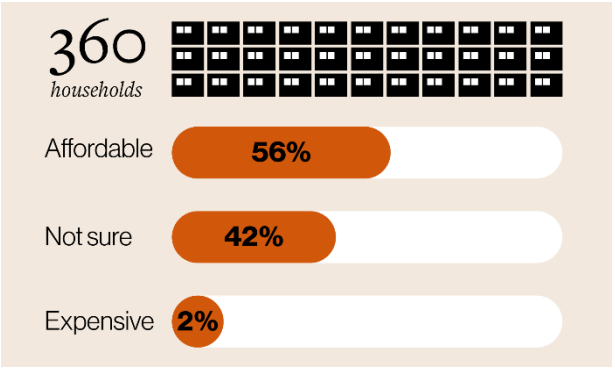
Unlike their comparators, spatial repellents allow for easy transportation, require little user interaction and no expertise, and can be distributed through existing commercial and channels.[6]

Efficiency

Excellent

There is very strong evidence that there is a reduced per-user cost which enables more people to benefit from spatial repellents. The MENTOR Initiative has done significant scoping to understand the best price point to ensure accessibility of spatial repellents while providing benefit to local retailers.[7] As such, spatial repellents are subsidised at a rate that makes them more financially accessible than existing comparators. SC Johnson's Guardian™ is currently priced for consumers at $2.75CAD (23,720 SYP) per unit.

The graphs below demonstrate that, according to a study conducted by The MENTOR Initiative, more than half of 360 households surveyed found spatial repellents affordable, and just 2% found them expensive.[8]



According to The MENTOR Initiative, one of the challenges with IRS is that it necessitates significant planning and coordination: an IRS truck with multiple people must go door-to-door, cover the structure/home in plastic, and ask the family to leave for approximately one hour while spraying occurs.[9] IRS is generally done to align with the beginning of sandfly season – and in Syria, it is often rainy at this time. This means families are asked to leave their homes and often stand in the rain during IRS while IRS staff move freely around their home. According to our consultation with The MENTOR Initiative staff, this can be challenging because in Syria (and other areas where leishmaniasis are present), many people are living in difficult-to-access dwellings, may not be living in a permanent structure, or cultural and gender norms (see Gender Equality and Social Inclusion, below) may make IRS difficult.

According to feedback from The MENTOR Initiative, other public health measures like IRS are frequently used, but the Guardian™ seems to be more appropriate for humanitarian settings due to its portability, passive use, low-maintenance, and up to 12-month efficacy.[10] Spatial repellents, therefore, increase the accessibility of vector control compared to existing alternatives.

The MENTOR Initiative's model focuses on distribution through existing supply chains and local retailers. This means that spatial repellents will be available through the places people already shop – requiring little behaviour modification and enabling consumers to easily access spatial repellents. MENTOR also directly distributes free spatial repellents in some humanitarian areas.

Effectiveness

Excellent

> *There is very strong evidence that the spatial repellents improve health outcomes for end users.* According to The MENTOR Initiative's reports and academic studies, spatial repellents have been found to be comparable or superior to similar alternatives.[11]

A Phase III vector prevention trial evaluated the effectiveness of Shield™ in reducing cutaneous leishmaniasis cases and sandfly density in conflict-affected areas in Syria. The study took place in camp settings for people experiencing internal displacement in Northeast Syria. More than 223,000 Shield™ units were distributed to more than 3,600 households. The intervention arm in Northeast Syria experienced "significant fewer cases of cutaneous leishmaniasis compared to the control arm over the full monitoring period," with an average disease incidence rate of 5.2 infections per 1,000 people in the treatment arm and 9.9 per 1,000 people in the control arm. This means, according to the study, that Shield™ resulted in a **48% reduction in the risk of cutaneous leishmaniasis infection at the individual level**.[12] This study, which was published in BMC Medicine in 2025, demonstrates that spatial repellents are effective at controlling leishmaniasis-transmitting vectors.

Interestingly, during consultations with MENTOR Initiative staff, it was noted that the *perceived* effectiveness of spatial repellents is lower than actual effectiveness. This is because spatial repellents work by modifying the behaviour of vectors – sandflies – not killing sandflies. This means that sandflies are still present in a household, but they pose no risk because they will not bite.

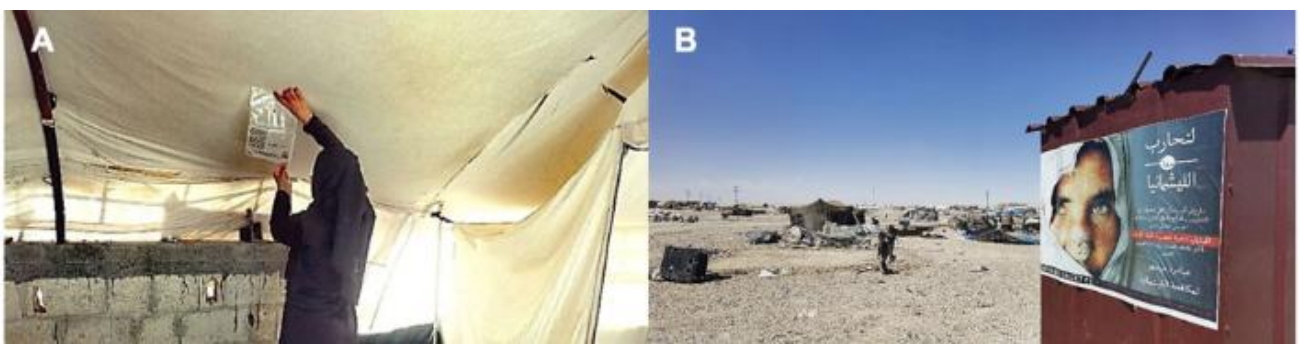


Figure 1: Installation of Shield™ and poster for awareness raising.[13]

Sustainable and Cost-effective

Adequate

> There is some evidence to suggest that this project under The MENTOR Initiative can be sustainable at scale. More evidence will be available at the end of the implementation period in August 2026.

The MENTOR Initiative has a financial sustainability plan for this project.[14] The long-term goal is to establish spatial repellents in local markets in Northern Syria at affordable and sustainable price points. Products are currently subsidised; the subsidy will be gradually reduced, and demand will be closely monitored. MENTOR Initiative is focusing on building a strong local distribution network, including partnering with local sellers and distributors. This will enable the product to be more readily available in areas where it is needed. MENTOR plans to continue working with private and public partners, and ultimately aims to include spatial repellents in Syrian government health plans.[15] The MENTOR Initiative additionally plans to partner with community organisations, especially in remote areas, to support awareness raising about the importance of spatial repellents and vector control as part of its demand-generating strategy.[16]

Ongoing partial or full subsidisation of spatial repellents has been an important enabler of scale; however, long-term plans for this remain unclear. Currently, SC Johnson is partnering with MENTOR Initiative to introduce spatial repellents across various contexts, including Nigeria, South Sudan, and the Central African Republic.[17]

During consultations, The MENTOR Initiative reflected on the way their business model has evolved since the December 2024 political changes in Syria.[18] Initially, the plan for commercialisation of Shield™/Guardian™ products included a cost-recovery mechanism in which a percentage of the proceeds generated by retailers would be reinvested in purchasing additional spatial repellent units. These units would then be donated to Syrians affected by crises with the view to sustainably enable vector control. However, with the establishment of the new government in Syria and resulting regulatory changes, this model was no longer permitted. The MENTOR Initiative adapted their model: currently, 50% of proceeds generated from sales of Shield™/Guardian™ products are returned to The MENTOR Initiative within Syria and reinvested directly into the Syrian health system. According to The MENTOR Initiative, this ensures full compliance with new national regulations while maintaining the model's intention to strengthen public health systems. Under this new framework, funds are used to support health system strengthening efforts in coordination with national authorities. This contributes to the rehabilitation and improvement of health services and systems in Syria while simultaneously supporting the long-term sustainability of vector control interventions.[19]

The MENTOR Initiative's sustainability plan is responding to changing geopolitical environments in Syria. While their specific market integration model has yet to be tested, there is evidence, according to GCC, that the overall model has worked in other contexts and with other initiatives. Additionally, there is good evidence that they are working to be flexible and adaptive to changing, complex, and uncertain environments. Once more evidence becomes available at the end of the implementation period, this rating may increase.

Gender Equality and Social Inclusion

Excellent

> There is very strong evidence to suggest that The MENTOR Initiative is serving hard to reach and marginalised populations, including women and girls.

During consultations, MENTOR reflected that IRS (the 'next best thing') requires a family to leave their house while it is being done. In Syria, it is often the case that men are at work outside of the home, and women and children/other family members are at home.[20] When the IRS truck and personnel arrive, a woman must call her husband, and he determines if the IRS can go ahead. This means that the man is ultimately making the decision about whether his family will receive IRS – informed by the fact that his family will have to stand outside on the street for at least an hour while IRS occurs. Shield™ and Guardian™ are available at local shops. Women are generally in charge of doing shopping – which means they can make decisions about purchasing spatial repellents. In this way, there are positive gender equity impacts: women are more empowered to make decisions for their family.[21]

Additionally, and not specifically part of the definition of equity used here, spatial repellents offer a type of empowerment and autonomy that IRS and other comparators do not. A family that purchases an SR can take it with them. This is critical for IDPs and people living in camps or humanitarian settings. MENTOR reflected that, for families with spatial repellents, being able to physically have something that is theirs and that is protecting their family is empowering.

Conclusion

The MENTOR Initiative harnessed a well-evidenced, effective vector control mechanism to enable people in conflict-affected environments to prevent leishmaniasis. There is strong evidence to suggest that MENTOR Initiative has, and will continue to, improve health outcomes for Syrians and other people where conflict is present and leishmaniasis is endemic.

Based on the evidence provided, the MENTOR Initiative rated as *excellent* for economy, efficiency, effectiveness, and equity; and *adequate* for sustainable cost-effectiveness.

A note on methodology

Clear Horizon used Grand Challenges Canada's Value for Money approach to develop these case studies. GCC have adapted King and OPM's Value for Investment approach for humanitarian innovation, which allows thoughtful and well-evidenced evaluative reasoning appropriate for the complexities of humanitarian innovation through the use of criteria and standards.[22]

There are five criteria, based on the 5 E's commonly used by the UK Foreign and Commonwealth Development Office, with standards for poor, adequate, good and excellent (the full rubric is available upon request). The criteria are:

- **Economy:** does the innovation generate cost savings without compromising on quality? This criteria considers what the cost of delivery the same level of products and services would be in the absence of the innovation.
- **Efficiency:** is a reduced cost per user resulting in the innovation reaching more people, or improving timeliness of service or care? This criteria considers the intersection of access, timeliness and quality.
- **Effectiveness:** does the innovation have a meaningful and measurable impact on end-user health and wellbeing outcomes?
- **Sustainable cost-effectiveness**: is there evidence of improved cost effectiveness that can be sustained at scale?
- **Gender Equality and Social Inclusion:** does the innovation serve the hardest to reach and those most affected by social exclusion, including women and girls and those with accessibility needs? This criteria looks at those within conflict-affected communities facing *additional* layers of marginalisation and exclusion.

To develop the case studies, Clear Horizon conducted a document review of evidence provided by GCC and the grantee, including progress reports, final reports, and peer-reviewed journal articles. Across case studies, Clear Horizon also undertook a Key Informant Interview with the grantee or GCC grant manager. Clear Horizon then produced an evidence matrix, synthesising the evidence against the five criteria.

Following this, Clear Horizon facilitated a panel workshop with GCC staff to interrogate the evidence and reach preliminary judgements against the criteria. Clear Horizon then developed the case studies based on the provided evidence and workshop deliberations.

[1]https://www.cdc.gov/leishmaniasis/about/index.html

[2] https://www.who.int/news-room/fact-sheets/detail/leishmaniasis

[3] Note: Based on a March 2026 conversation with The MENTOR Initiative, Shield™ has only been provided to health centres whereas Guardian™ is being distributed to the public.

[4] Interim Progress Report. 2025

[5] TTS2 Lead Recommendation Report. Annex C. 2024.

[6] https://mentor-initiative.org/activity/integrated-vector-management/spatial-repellents/

[7] Interim Progress Report. 2025. TTS2 Lead Recommendation Report. 2024.

[8] Interim Progress Report. 2025.

[9] Consultation with The MENTOR Initiative. 2026

[10] Feedback from The MENTOR Initiative. 23 March 2026.

[11] Interim Progress Report. 2025.; Enhancing protection against vector-borne disease in forcibly displaced communities: evaluating the efficacy of spatial repellents for cutaneous leishmaniasis control in North-East Syria. 2025; TTS2 Lead Recommendation Report. 2024; https://mentor-initiative.org/research-from-spatial-repellent-trial-in-syria-published-in-bmc-medicine-journal/

[12] Enhancing protection against vector-borne disease in forcibly displaced communities: evaluating the efficacy of spatial repellents for cutaneous leishmaniasis control in North-East Syria. 2025; TTS2 Lead Recommendation Report. 2024; https://mentor-initiative.org/research-from-spatial-repellent-trial-in-syria-published-in-bmc-medicine-journal/

[13] https://link.springer.com/epdf/10.1186/s12916-025-04244-2?sharing_token=ftpTHFgWBQUlO477Zh4eA2_BpE1tBhCbnbw3BuzI2ROkD4ouQaLC5q45kGrigMn-vPoNsSgrQ_G05Fo5NunE_BaHcim2ViXb6ViBM7m4PIjjNlll-SJTrnWffrUf

[14] Interim Progress Report. 2025

[15] Interim Progress Report. 2025.

[16] Interim Progress Report. 2025.

[17] Interim Progress Report. 2025.

[18] Consultation with The MENTOR Initiative. 2026.

[19] Feedback from The MENTOR Initiative. March 2026.

[20] Consultation with The MENTOR Initiative. 2026.

[21] Consultation with The MENTOR Initiative. 2026.

[22] King et al. (2023). Assessing Value for Money: the Oxford Policy Management Approach. Oxford: Oxford Policy Management. https://www.opml.co.uk/sites/default/files/migrated_bolt_files/opm-vfm-approach-2.pdf