From Health Cluster to Global Impact: Connecting Vaccine Expertise for Health Security

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BACKGROUND

The vaccine and immunology landscape is increasingly complex, with expertise distributed across academia, industry, healthcare and public health. While this diversity creates opportunities for innovation, it can also make it difficult to identify the right expertise and partners, particularly across organisational and geographical boundaries. Health cluster organisations can play an important role in connecting stakeholders and translating available expertise into concrete collaborations.

OBJECTIVE

This poster illustrates the role of Immunity for Health (IfH), a Belgian health cluster organisation, in connecting stakeholders across the vaccine and immunology landscape. Using an international health security project as a case study, we demonstrate how an established network can facilitate the identification of relevant expertise and enable collaborations with tangible impact.

A Health cluster that connects

Academia
Scientific knowledge & innovation

Industry
Technologies & Developement

Healthcare
Clinical expertise & implementation

Public health
Population health & policy

APPROACH

IfH brings together stakeholders from academia, industry, healthcare and public health through scientific events, thematic initiatives, matchmaking and knowledge exchange. By maintaining an overview of expertise and capabilities within its network, IfH connects organisations seeking specific knowledge, technologies or implementation partners with relevant experts and potential collaborators.

From network to impact

International need
WHO & MPP seek Flemish partners

→

IfH network
Connect organisations and opportunities

→

Identification of expertise
Based on capabilities and areas of interest

→

Connections between partners
Brings the right parties together

→

Concrete collaborations
Technology, capacity building, research

→

Global impact
Stronger health security & pandemic preparedness

CASE STUDY: Connecting Flemish expertise to health security initiatives in Africa

As part of an international health security initiative involving Flemish and African partners, WHO and the Medicines Patent Pool (MPP), as key international partners, sought suitable Flemish partners. The IfH network enabled them to identify and connect with organisations matching their needs and areas of interest. Several IfH members subsequently established collaborations with African partners.
Two examples illustrate the collaborations that emerged.

Idevax is contributing expertise in intradermal vaccination and dose-sparing technologies, including the development of a mobile “PrintTainer” concept, designed to support decentralised injection device manufacturing and regional capacity building in Africa.



Intradermal delivery · **Mobile manufacturing** · **Regional capacity building**

SwiftPharma is contributing plant-based production expertise to develop Griffithsin, an antiviral lectin being investigated as a nasal formulation for respiratory virus prevention, while also producing H5N1 influenza proteins for evaluation with South African partners. Importantly, the production capacity developed for Griffithsin could potentially be adapted for rapid production of influenza proteins, illustrating how regional manufacturing can support both immediate health needs and future pandemic preparedness.



Plant-based production · **Griffithsin (Nasal formulation)** · **H5N1 influenza proteins** · **Potential switch & scale-up**

IMPACT

These examples demonstrate how a neutral network can connect complementary expertise across organisations and countries, transforming an international need into concrete partnerships. The resulting collaborations combine technology development, local capacity building and preparedness for future health threats.

CONCLUSION

The value of a health cluster extends beyond bringing stakeholders together. By understanding available expertise, identifying complementary capabilities and facilitating connections, IfH can help turn existing knowledge and technologies into new collaborations with international impact. Such connections can contribute to a more connected, agile and resilient vaccine ecosystem and strengthen global health and pandemic preparedness.