A Knowledge Management System for Neglected Zoonotic Diseases in Peru: a Proposal for a One Health Approach



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INTRODUCTION

Neglected Tropical Diseases (NTD) include 17 diseases that affect more than 1 billion people, mainly the poor.

59% of NTDs NTDs are Zoonose

Human Animal Health One Health

Health

One Health: A multidisciplinary Environmental for the planet. approach to achieve optimal health

However, different agencies and research groups focus specifically on either human, animal or environmental health.

Integrating the work of different institutions creates new challenges for One Health.

> A Knowledge Management System (KMS) is a set of tools and practices that enables organizations to collectively create, share and apply knowledge to better achieve their goals.

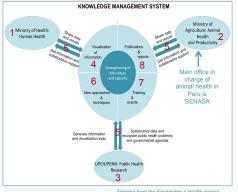
Objective: To create an environment that allows partner institutions to generate and share knowledge to better control neglected zoonotic

Fig. 1. Study Area and local NTDs:



METHODS

Fig. 2. Proposed KMS for Zoonotic NTDs in Arequipa, Peru.



Practices

Define a community of practice consisting of institutions 1,2,3 that are bound together by shared interests (to control zoonotic disease).

> Co-write scientific papers and national reports (8) proposing new methods and approaches (6) for the control of NTDs.



Tools

MOH Disease Control Coordinator using our data visualization technology to make decisions on control activities; the process is documented.



Data is constantly being shared between MOH and Penn/UPCH for analysis, which is provided to MOH for decision making (5).

RESULTS and CONCLUSIONS

CAYETANO HEREDIA

- ◆ Severe underreporting was found in human trematodiasis when comparing the cases reported to the government (Fig. 3) to the hundreds of cases found in university databases.
- ◆ Also, in the process of connecting MOH with SENASA, it was found that both institutions were looking for trematodiasis in different areas without
- ◆ Underreporting of trematodiasis in Areguipa of NTDs could be reduced with the implementation of a KMS.

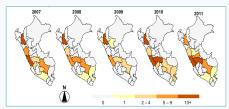


Fig. 3. Human trematodiasis cases registered at General Directorate of Epidemiology.

- ◆ .Canine rabies transmission is being driven by complex social and ecological factors and new approaches are being developed with the MOH, office in charge of canine vaccination.
- ◆ A formal agreement between Penn/UPCH and MOH allows for sharing of data and promotes coordinated activities for Chagas disease control and research for other NTDs.
- A formal agreement with SENASA is being developed. Public health is now part of the conversation at their offices for the first time
- ◆ Penn/UPCH is a catalyst in Arequipa, Peru, that promotes building and sharing knowledge.

Some Challenges

- Institutional agendas might produce divergent goals.
- Timing of control and prevention activities might overlap or be difficult to coordinate.
- Definitions can be different across institutions.
- Bureaucracy at more than one institutions can make coordinated activities infeasible.

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