



Sciences Economiques et Sociales de la Santé  
& Traitement de l'Information Médicale

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## Valéry RIDDE

*Directeur de recherche au CEPED  
Université de Paris - IRD*

**Évaluer une intervention communautaire contre la dengue au Burkina Faso :  
entre interdisciplinarité et méthodes mixtes**

**octobre 2020**



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# Évaluer une intervention communautaire contre la dengue au Burkina Faso : entre interdisciplinarité et méthodes mixtes

**Ridde V.**

Somé P-A, Saré D., Perez D. Kafando Y, Barro A, Ouedraogo S. Bonnet E. Fournet, F. [etc...](#)

# OBJECTIFS DE LA PRÉSENTATION

- Attirer l'attention sur l'importance des maladies fébriles autre que le paludisme, dont la dengue en Afrique de l'Ouest
- Sensibiliser à l'importance d'un processus rigoureux et participatif de formulation d'une intervention
- Montrer l'importance d'une approche holistique et interdisciplinaire de l'évaluation des interventions

# VIDEO

<https://vimeo.com/240513650>

## RESEARCH ARTICLE

## Open Access



CrossMark

# Presence of three dengue serotypes in Ouagadougou (Burkina Faso): research and public health implications

DENV2, DENV3, DENV4

Valéry Ridde<sup>1,2\*</sup>, Isabelle Agier<sup>2</sup>, Emmanuel Bonnet<sup>3</sup>, Mabel Carabali<sup>4</sup>, Kounboor Roch Dabiré<sup>5</sup>, Florence Fournet<sup>6</sup>, Antarou Ly<sup>7</sup>, Ivalbèhiré Bertrand Meda<sup>7</sup> and Beatriz Parra<sup>8</sup>



## RESEARCH ARTICLE

## Clinical and epidemiologic characteristics associated with dengue during and outside the 2016 outbreak identified in health facility-based surveillance in Ouagadougou, Burkina Faso

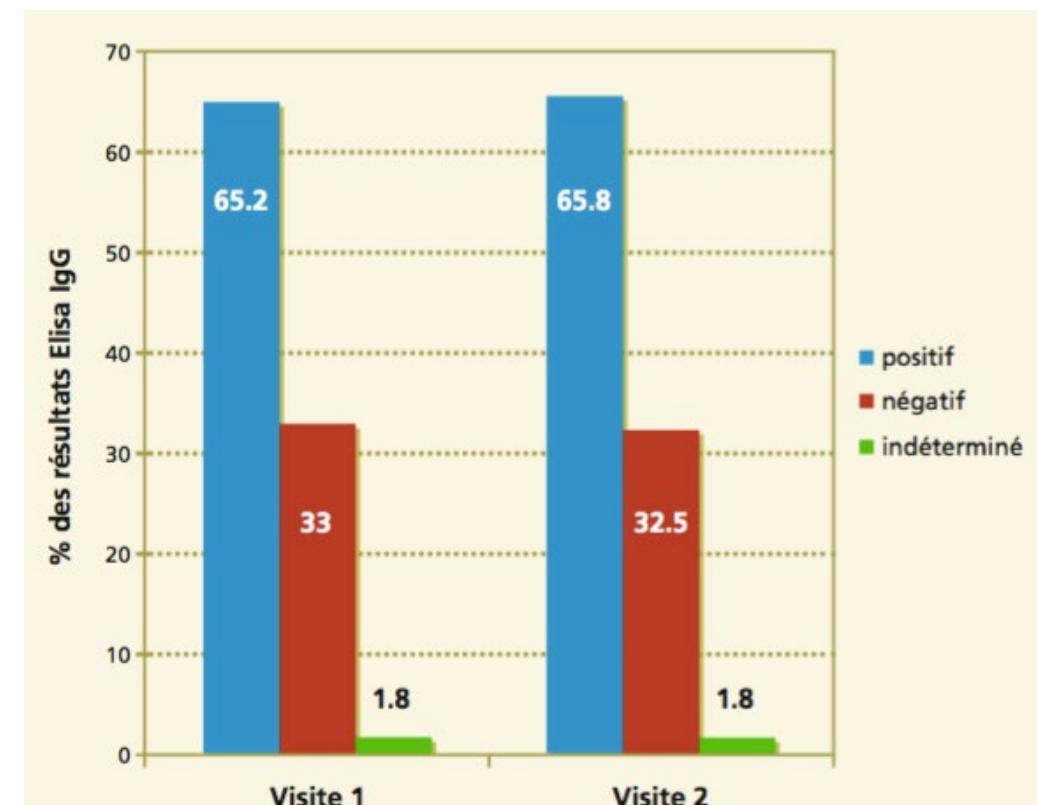
Jacqueline K. Lim<sup>1,2\*</sup>, Yaro Seydou<sup>3</sup>, Mabel Carabali<sup>1,4</sup>, Ahmed Barro<sup>5</sup>, Desire Lucien Dahourou<sup>3,6</sup>, Kang Sung Lee<sup>1</sup>, Teguewende Nikema<sup>3</sup>, Suk Namkung<sup>1</sup>, Jung-Seok Lee<sup>7</sup>, Mee Young Shin<sup>1</sup>, Emmanuel Bonnet<sup>8</sup>, Therese Kagone<sup>3</sup>, Losseni Kaba<sup>9</sup>, Tansy Edwards<sup>2</sup>, Paul-André Somé<sup>5</sup>, Jae Seung Yang<sup>1</sup>, Neal Alexander<sup>2</sup>, In-Kyu Yoon<sup>1</sup>, Valéry Ridde<sup>10</sup>

<sup>1</sup> Global Dengue and Aedes-transmitted diseases Consortium, International Vaccine Institute, Seoul, Korea,<sup>2</sup> Faculty of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>3</sup> Department of public health epidemiology, Centre MURAZ, Bobo-Dioulasso, Burkina Faso, Africa, <sup>4</sup> Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, Montreal, Quebec, Canada, <sup>5</sup> Action-Gouvernance-Integration-Renforcement (AGIR), Program Equité, Ouagadougou, Burkina Faso, Africa, <sup>6</sup> Institut de Recherche en Sciences de la Santé, Ouagadougou, Burkina Faso, Africa, <sup>7</sup> Department Of Zoology, University of Oxford, Oxford, United Kingdom, <sup>8</sup> Institute for Research on Sustainable Development (IRD), UMI Résilience, Bondy, France, <sup>9</sup> Centre National de Transfusion Sanguine, Ouagadougou, Burkina Faso, Africa, <sup>10</sup> Institute for Research on Sustainable Development (IRD), CEPED, Université de Paris, ERL INSERM SAGESUD, Paris, France\* [kalm@ivi.int](mailto:kalm@ivi.int)

## OPEN ACCESS

**Citation:** Lim JK, Seydou Y, Carabali M, Barro A, Dahourou DL, Lee KS, et al. (2019) Clinical and epidemiologic characteristics associated with dengue during and outside the 2016 outbreak identified in health facility-based surveillance in Ouagadougou, Burkina Faso. PLoS Negl Trop Dis 13(12): e0007882. <https://doi.org/10.1371/journal.pntd.0007882>

## Abstract



# La recherche interventionnelle

Recherche



Intervention

**NEW  
APPROACHES  
TO EVALUATING  
COMMUNITY  
INITIATIVES:  
Concepts, Methods,  
and Contexts**

**EDITED BY**

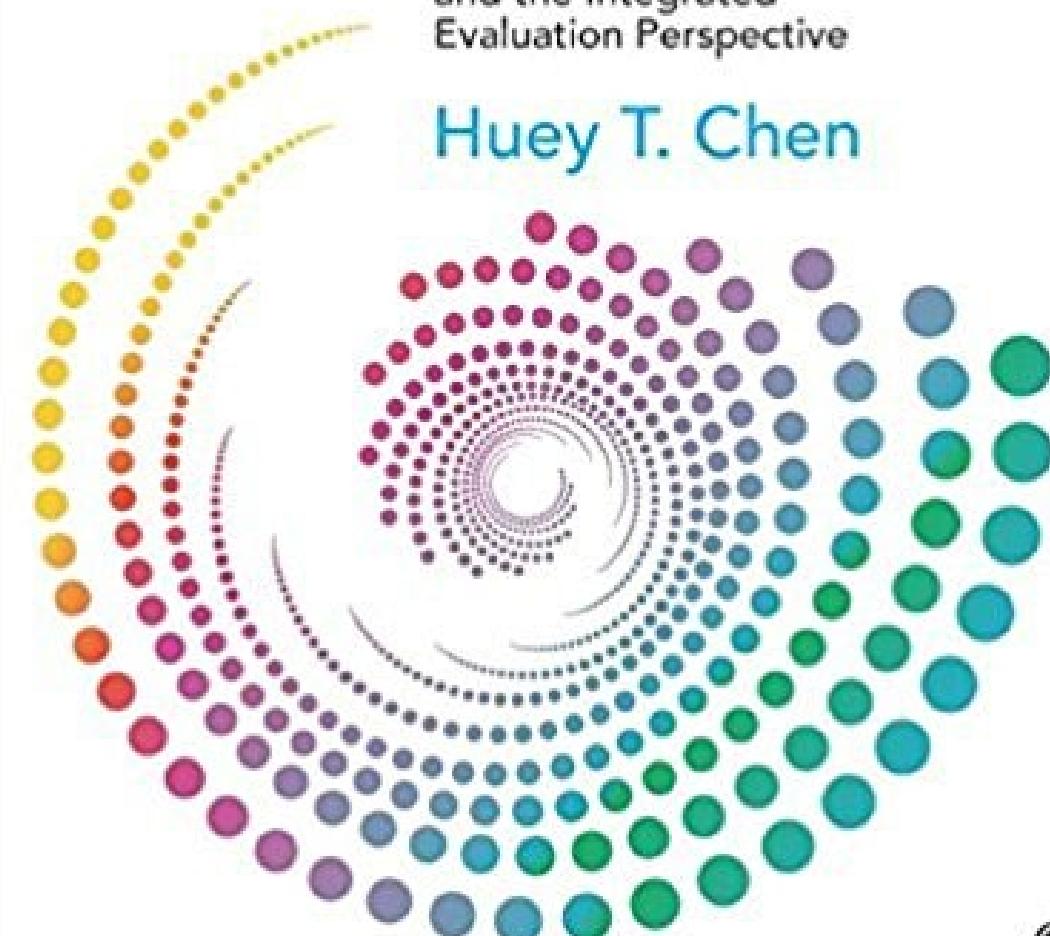
**James P. Connell  
Anne C. Kubisch  
Lisbeth B. Schorr  
Carol H. Weiss**

Roundtable on  
Comprehensive Community Initiatives  
for Children and Families



**THEORY DRIVEN**

**Second  
Edition**



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**PRACTICAL  
PROGRAM  
EVALUATION**

Theory-Driven Evaluation  
and the Integrated  
Evaluation Perspective

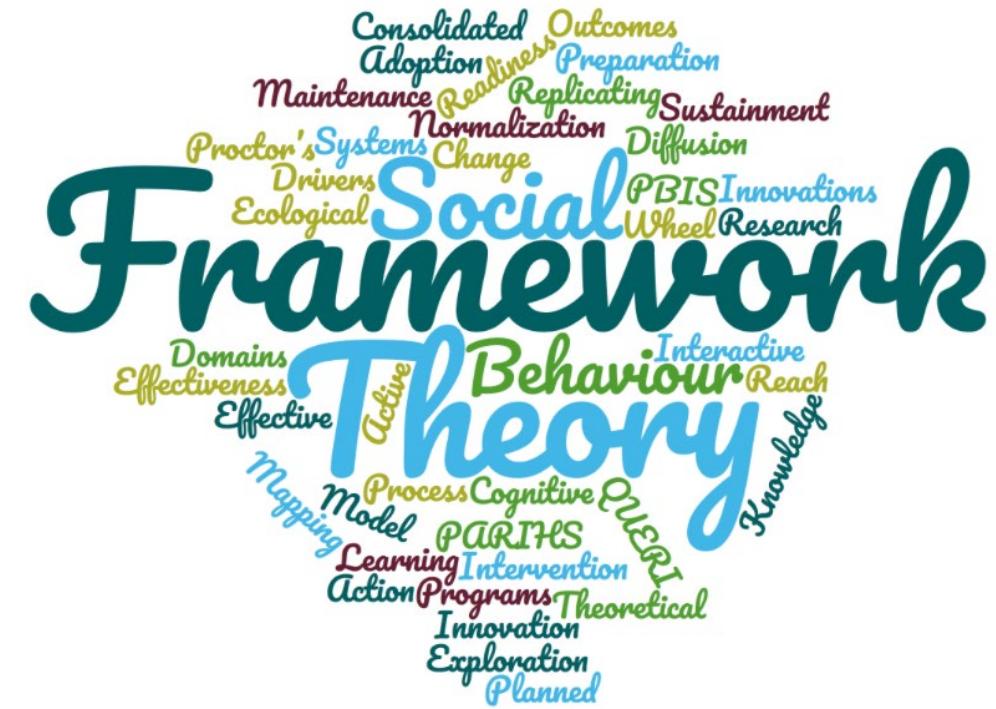
**Huey T. Chen**



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# UTILISATION DE THÉORIES POUR...

- Plus de 100 différentes théories
- Identifier les construits clefs pour comprendre les barrières/facilitateurs (80%)
- Soutenir la collecte des données (77%)
- Renforcer la clarté conceptuelle (66%)
- Guider la planification de la mise en œuvre (66%)
- Cadrer l'évaluation (61%)
- Soutenir l'analyse des données (60%)



# Using implementation science theories and frameworks in global health

Valéry Ridde,<sup>1</sup> Dennis Pérez,<sup>2</sup> Emilie Robert<sup>3</sup>

Telephone: +Ridde V, Pérez D, Robert E. Using implementation science theories and frameworks in global health. *BMJ Global Health* 2020;5:e002269. doi:10.1136/bmjgh-2019-002269

## ABSTRACT

In global health, researchers and decision makers, many of whom have medical, epidemiology or biostatistics background, are increasingly interested in evaluating the implementation of health interventions. Implementation science, particularly for the study of public policies, has existed since at least the 1930s. This science

## Summary box

- Global health researchers and decision makers tend to favour impact evaluations to the detriment of implementation evaluations of health interventions.
- Research on global health interventions is not yet sufficiently supported by theories and analytic

# Nos définitions de théories et cadres

<b>1- Théorie d'intervention</b>	<b>“Hypothèses sur lesquelles les gens, consciemment ou inconsciemment, construisent leurs interventions.”</b> (Weiss, 1998)
<b>2- Cadre conceptuel</b>	<b>“Une structure, un aperçu, un schéma, un système ou un plan composé de diverses catégories descriptives ; il décrit des phénomènes empiriques en les inscrivant dans un ensemble de catégories sans les expliquer.”</b> (Nilsen, 2015)
<b>3- Théorie de moyenne portée</b>	<b>“Les théories qui se situent entre les hypothèses de travail mineures mais nécessaires qui évoluent en abondance au cours de la recherche quotidienne et les efforts systématiques globaux pour élaborer une théorie unifiée”</b> (Merton, 1968)
<b>4- Grande théorie</b>	<b>“Théorie qui expliquera toutes les uniformités observées du comportement social, de l'organisation sociale et du changement social.”</b> (Merton, 1968)

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## Oser les défis des méthodes mixtes en sciences sociales et sciences de la santé

Publié sous la direction de

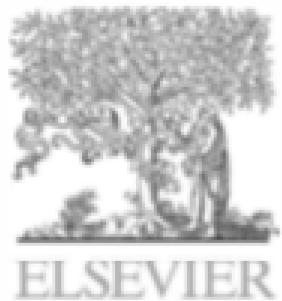
Mathieu Bujold, Quan Nha Hong,  
Valéry Ridde, Claude Julie Bourque,  
Maman Joyce Dogba,  
Isabelle Vedel et Pierre Pluye

Cahiers Scientifiques

# L'INTERVENTION

## **CHOIX DES ACTIVITÉS**

- ❖ Elaboration d'une liste d'activités basée sur les recherches scientifiques
- ❖ Enquête en méthodes mixtes des préférences communautaires
- ❖ Choix d'activités jugées acceptables, adaptées et potentiellement efficaces



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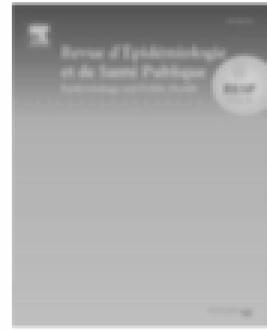
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Article original

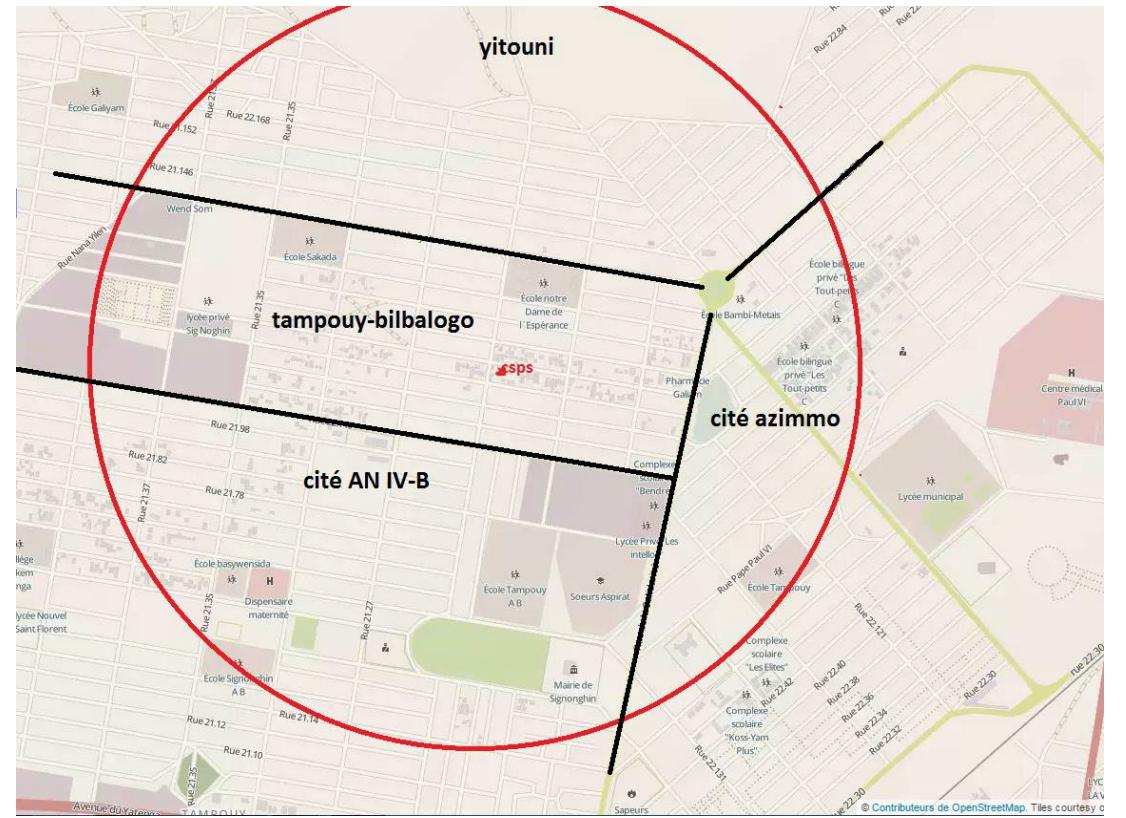
# Épidémies récurrentes de la dengue au Burkina Faso : préférences communautaires pour une intervention de prévention de la maladie

*Recurrence of dengue epidemics in Burkina Faso: Community preference for an intervention to prevent the disease*



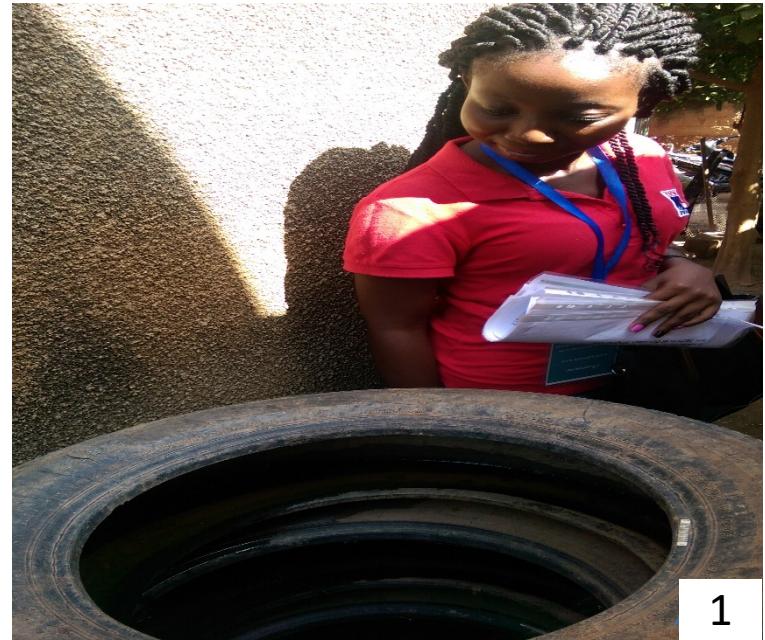
S. Ouédraogo<sup>a,b</sup>, S. Degroote<sup>c</sup>, S.A. Barro<sup>d</sup>, P.-A. Somé<sup>d</sup>, E. Bonnet<sup>e</sup>, V. Ridde<sup>e,\*</sup>

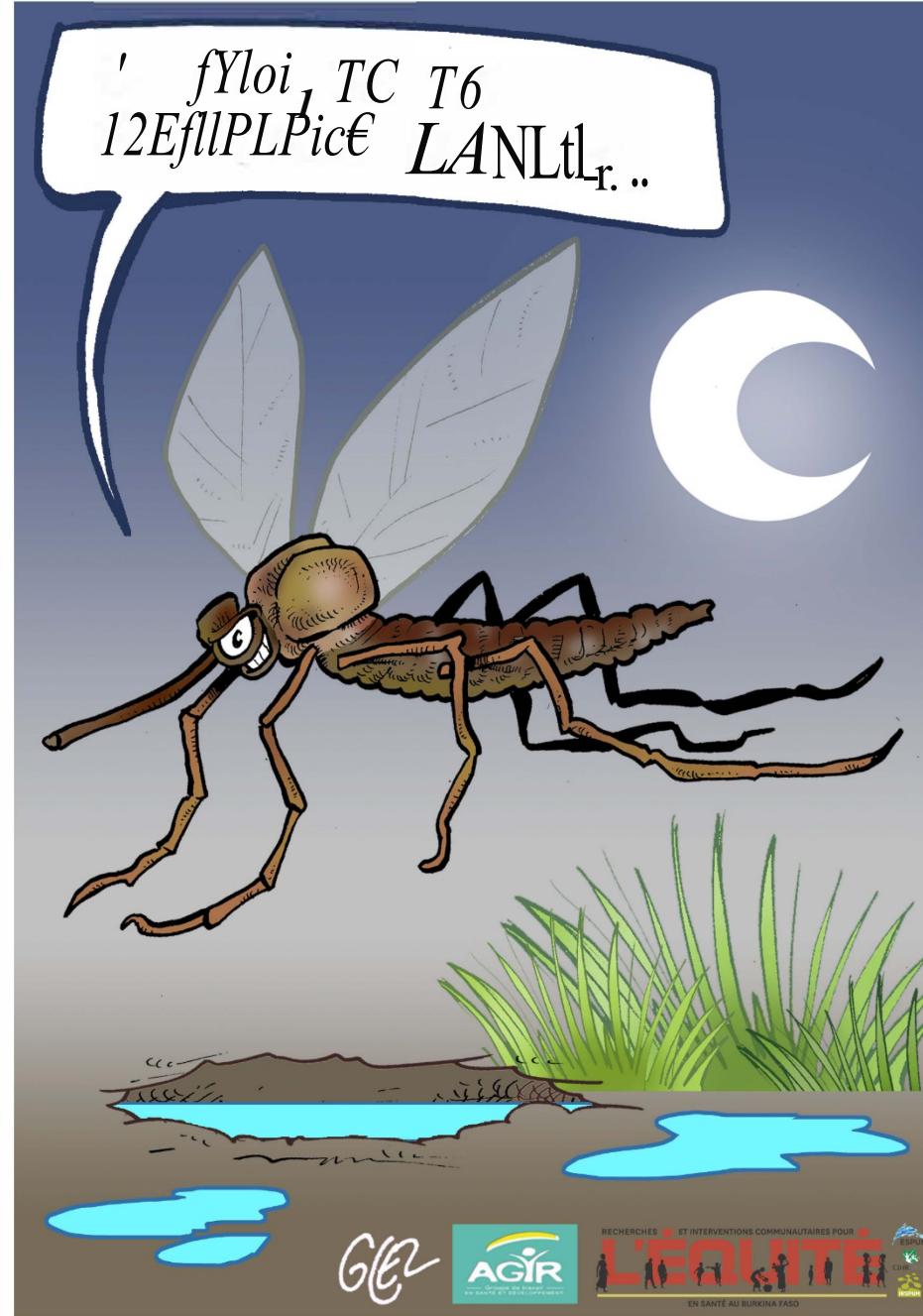
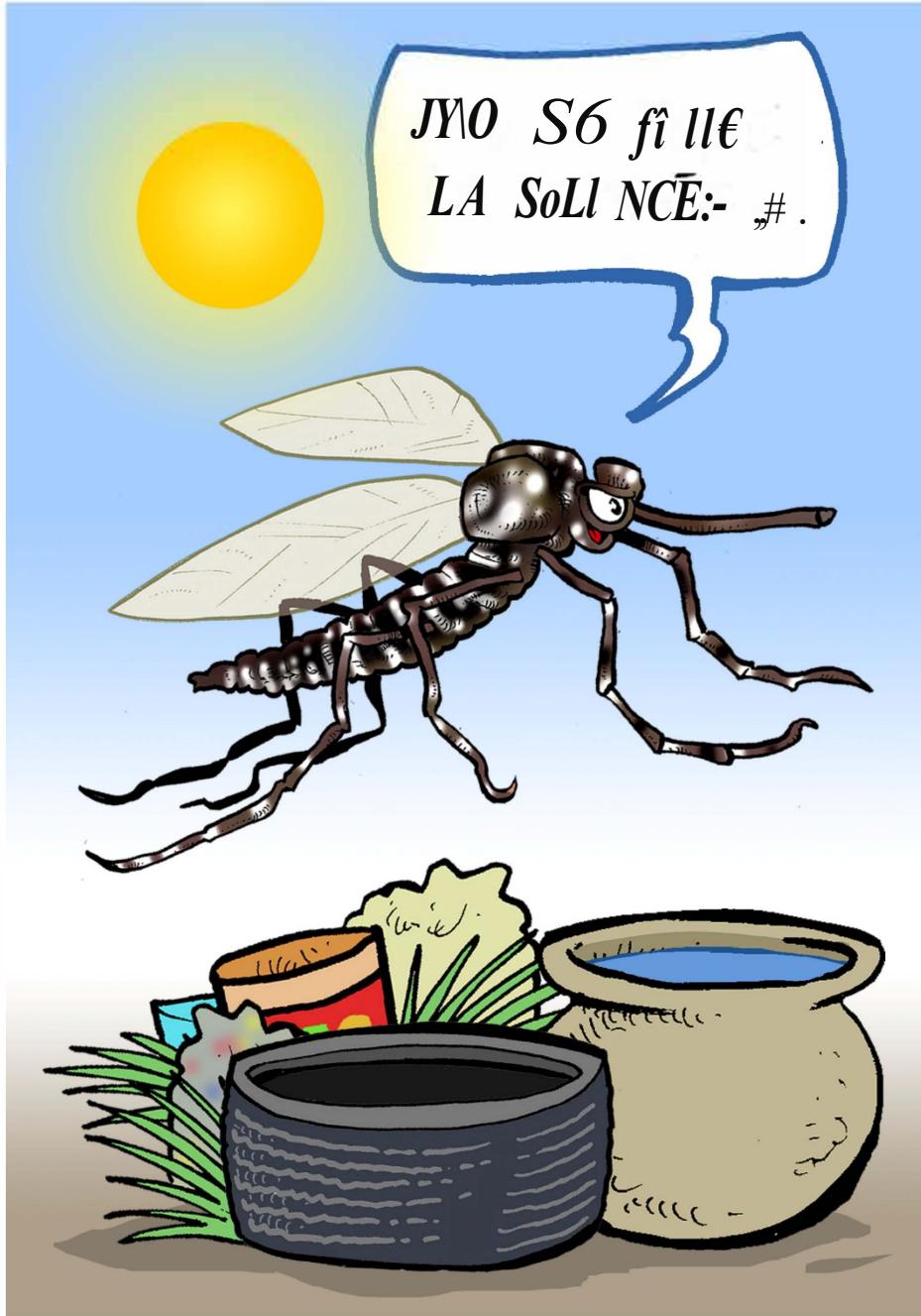
# L'identification, mobilisation, planification opérationnelle



images AGIR

# Les activités de l'intervention





Gez



RECHERCHES ET INTERVENTIONS COMMUNAUTAIRES POUR  
L'ÉQUITÉ  
EN SANTÉ AU BURKINA FASO



RESEARCH ARTICLE

# Video as a public health knowledge transfer tool in Burkina Faso: A mixed evaluation comparing three narrative genres

Catherine Héberte<sup>1</sup> \*, Christian Dagenais<sup>1</sup>, Esther Mc Sween-Cadieux<sup>1</sup>, Valéry Ridde<sup>2</sup>

1 Department of Psychology, University of Montreal, Montreal, Quebec, Canada, 2 French Institute For Research on sustainable Development (IRD), CEPED (!IRD-Université Paris Descartes), Universités Paris Sorbonne Cités, ERL INSERM SAGESUD, Paris, France

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# LA RECHERCHE

RESEARCH

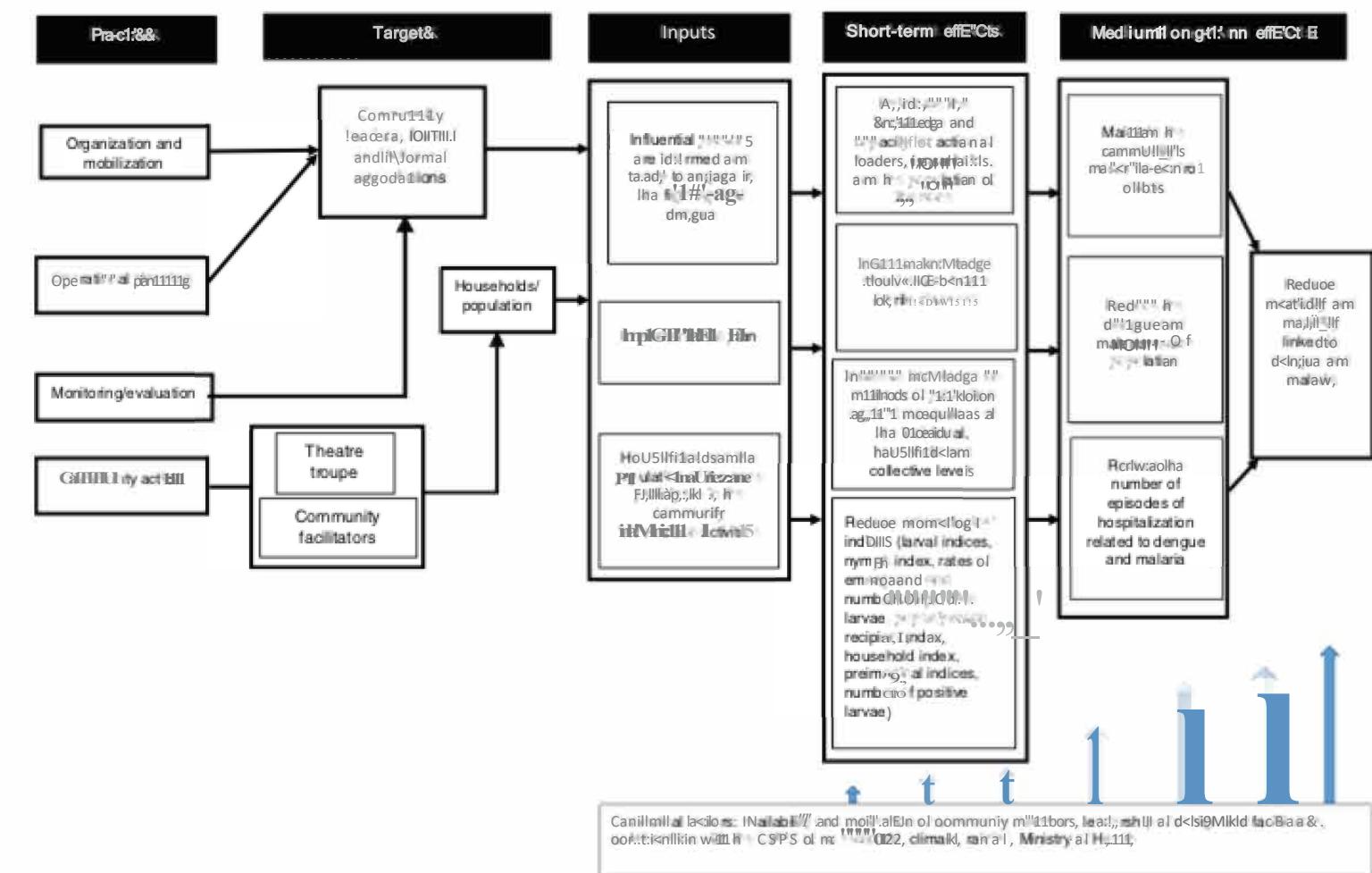
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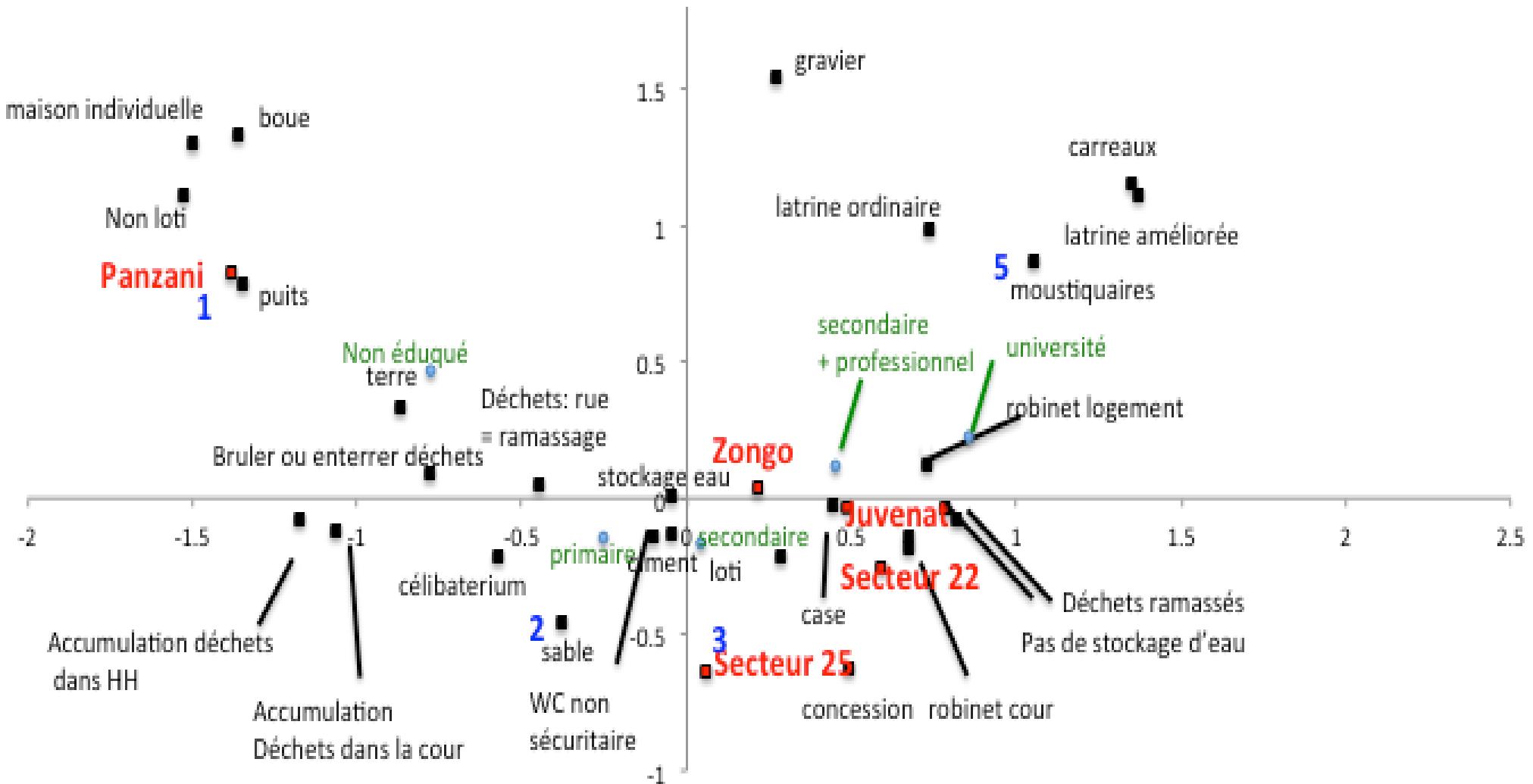
# Community-based dengue control intervention in Ouagadougou: intervention theory and implementation fidelity

Diarie Saré<sup>1</sup> , Dennis Pérez<sup>1</sup> , Paul-André Somé<sup>2</sup>, Yamba Kafando<sup>2</sup>, Ahmed Barro<sup>1</sup> and Valéry Ridde<sup>1,3</sup>



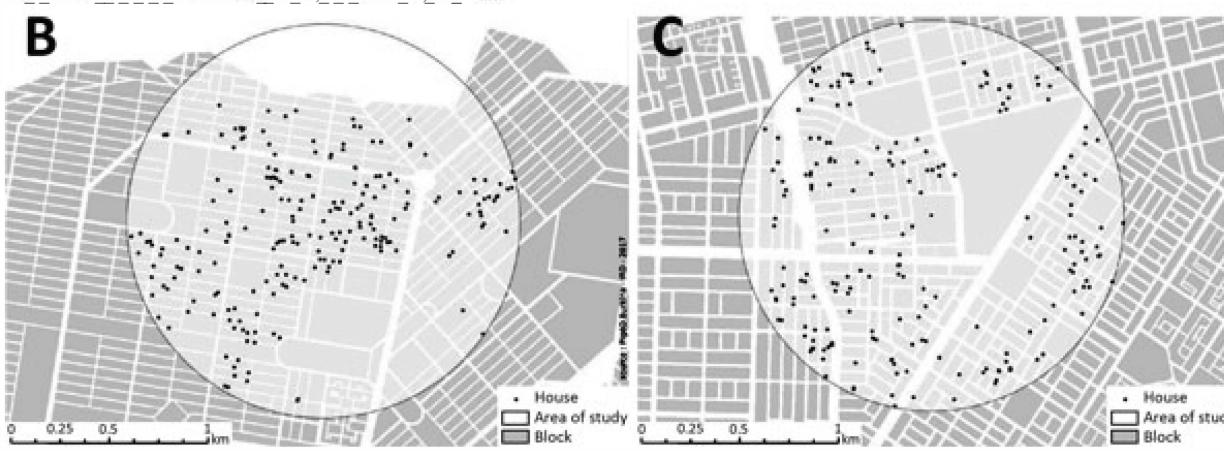
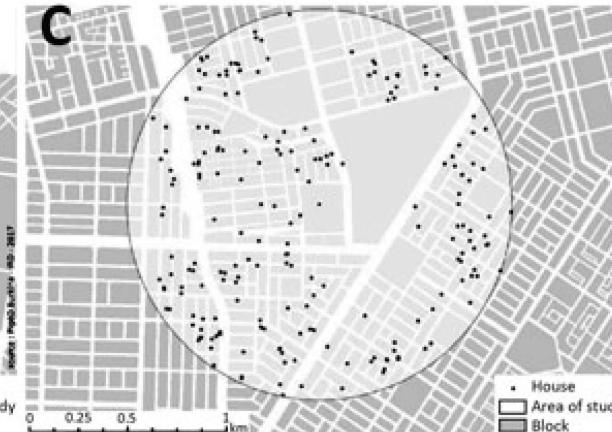
**Fig. 1** Thematical model for the community intervention against dengue in Ouagadougou

# DEVIS QUASI EXPÉIMENTAL



**A**

Burkina Faso

**B****C**



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II Gîte positif - pneu

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**ACCUEIL** RAPPORTS SOUMETTRE UN ÉVÉNEMENT RECEVOIR DES MISES A JOUR CONTACTEZ-NOUS

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a II

COMMENT TEMOIGNER

Map of Ouagadougou, Burkina Faso, showing several red numbered markers (1, 2, 3, 14, 6, 15) indicating locations of interest. The map includes labels for major roads (N2, N3, N4), neighborhoods, and landmarks like the Camp Général Aboubacar Sangoulé Lamizana. A scale bar indicates 1-2km/1mi, and the coordinates 12.44210, -1.44427.

C OpenStreetMap onu, butors

## Articles & Highlights

### PubMed CFIR citations

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A health knowledge brokering intervention in a district of Burkina Faso: A qualitative retrospective implementation analysis

Léonie M. Cadieux, Christian Diopane, Dominique Timpafo Koué, Valéry Rida

Published: July 25, 2019 | https://doi.org/10.1371/journal.pone.0221005

Abstract

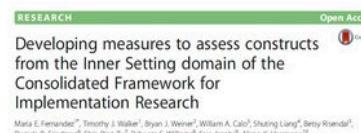
A knowledge brokering (KB) intervention was implemented in Burkina Faso. By creating partnerships with health system actors in the district of Ouagadougou, knowledge brokers helped health system actors to better understand their context, increase their evidence, produce relevant knowledge translation tools, and support them in using research to improve their actions. The study aims to analyze the key factors that influenced the KB project and to make recommendations for future initiatives.

Methodology

The qualitative design involved a single case study in which the KB intervention implementation was evaluated retrospectively. Data came from interviews with the intervention team ( $n = 4$ ) and with various actors involved in the intervention ( $n = 16$ ). Data from these interviews were analyzed using thematic analysis. The KB intervention was evaluated using the Consolidated Framework for Implementation Research (CFIR).

Results

The qualitative design involved the single case study in which the KB intervention implementation was evaluated retrospectively. Data came from interviews with the intervention team ( $n = 4$ ) and with various actors involved in the intervention ( $n = 16$ ). Data from these interviews were analyzed using thematic analysis. The KB intervention was evaluated using the Consolidated Framework for Implementation Research (CFIR).



Abstract

Background: Scientists and practitioners often need reliable, valid measures of contextual factors that influence implementation. Yet, few existing measures demonstrate reliability or validity. To meet this need, we developed and assessed the psychometric properties of measures of several constructs within the Inner Setting domain of the Consolidated Framework for Implementation Research (CFIR).

Methods: We used a mixed-methods approach to develop measures for the Inner Setting domain constructs: Culture Overall, Culture Stress, Culture Effect, Implementation Climate, Learning Climate, Leadership Engagement, and Available Resources.

Measure development: We developed measures for the Inner Setting domain constructs: Culture Overall, Culture Stress, Culture Effect, Implementation Climate, Learning Climate, Leadership Engagement, and Available Resources.

We adapted items for the healthcare context, pilot-tested the adapted measures in 4 Federally Qualified Health Center (FQHC) sites, and evaluated the reliability and validity of the FQHC items in the FQHCs. We also developed and evaluated a cultural cancer IED screening practice. To psychometrically assess our measures, we conducted confirmatory factor

### Mapping ERIC Implementation Strategies to Context

Implementation scientists have long recognized the need to assess context and then tailor implementation strategies to fit. The CFIR is often used to identify contextual determinants (barriers and facilitators) that can then be used to guide selection of appropriate strategies. Our team, led by Dr. Tom Waltz, published results from 169 self-identified implementation experts who selected strategies most likely to address each CFIR barriers. Each expert identified up to 7 strategies for an average of 6.1 barriers based on CFIR constructs. Mappings were highly heterogeneous; each CFIR barrier had an average 47 different strategies endorsed by at least one expert. With 72 ERIC strategies and

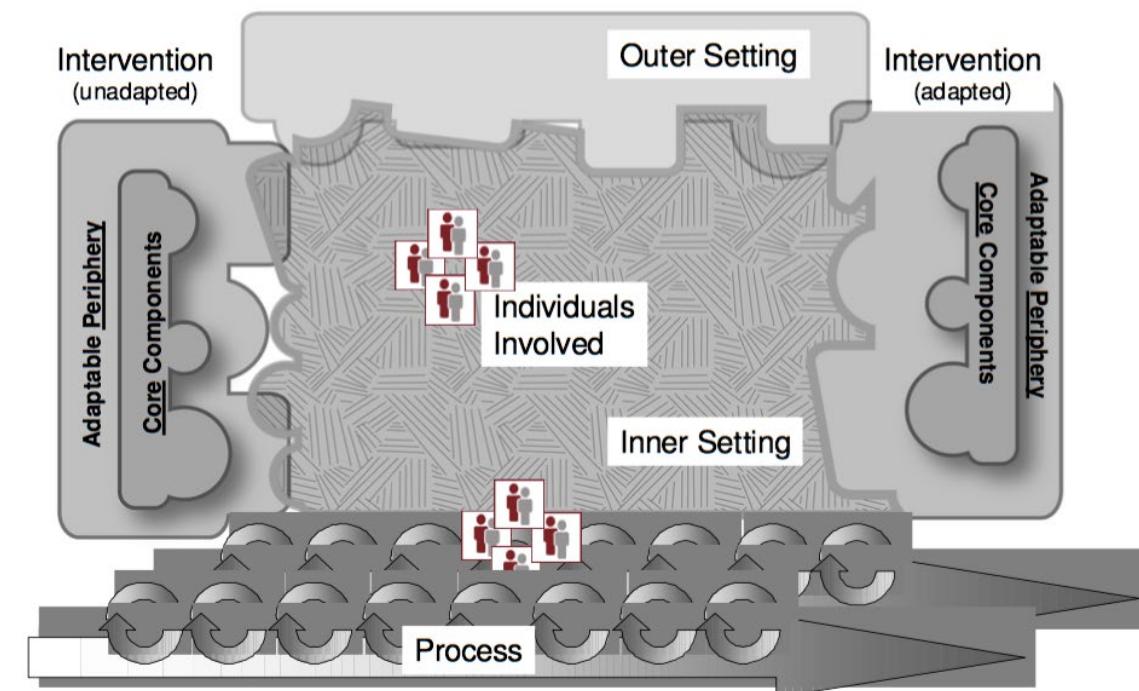
### French Translation of CFIR used for evaluation in Burkina

Dr. Valéry Ridde has provided a French translation of the CFIR, which is now available online along with a brief illustration; scroll to the bottom of the [Constructs page](#). This translation was developed to support her work with Mc Sween-Cadieux and colleagues, who [published a paper](#) in PLoS ONE describing their experience implementing a knowledge-brokering intervention in Burkina Faso. Knowledge brokers (KBs) seek to establish links between researchers, practitioners, and decision-makers by helping these key individuals better understand each other's goals, culture, to initiate and build partnerships, to influence each other's work and ultimately, increase their use of research-

### Quantitative measures of CFIR Inner Setting Constructs

Maria Fernandez and colleagues developed quantitative measures for 7 constructs within the Inner Setting. Five exist within CFIR: Culture Overall (9 items), Implementation Climate (4 items), Learning Climate (4 items), Leadership Engagement (4 items), and Available Resources (7 items). Items were drawn from the Practice Adaptive Reserve instrument ([Jaen et al, 2010](#)), The Organizational Readiness for Change Assessment ([Helfrich et al, 2009](#)), Clinical Oncology Program Survey ([Weiner et al, 2011](#)), and a single item from the Implementation Climate Assessment ([Konn et al, 2021](#)). Two constructs were not included in

# ÉVALUATION DES PROCESSUS



# ÉVALUATION DDES PROCESSUS



RESEARCH

Open Access

# Analysis of the implementation of a community-based intervention to control dengue fever in Burkina Faso



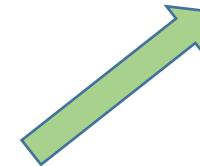
Issa Sombié<sup>1,2\*</sup>, Stéphanie Degroote<sup>3</sup>, Paul André Sombié<sup>2</sup> and Valéry Ridde<sup>3,4</sup>

# EFFICACITE

**1. Salive de moustiques dans le sang**

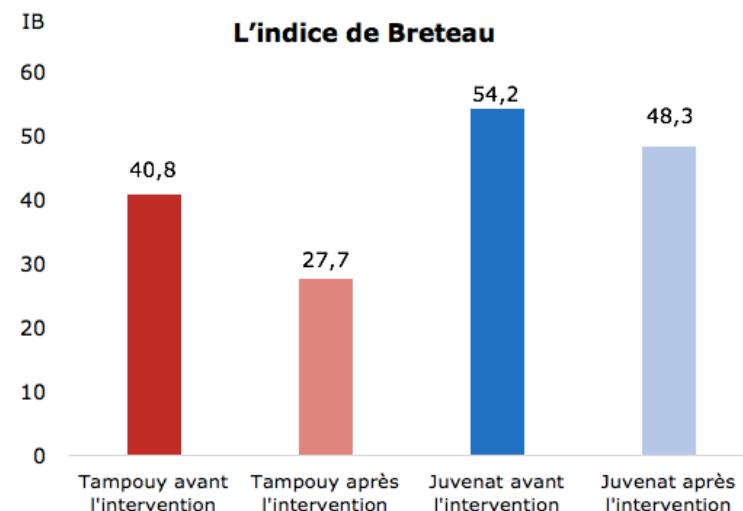
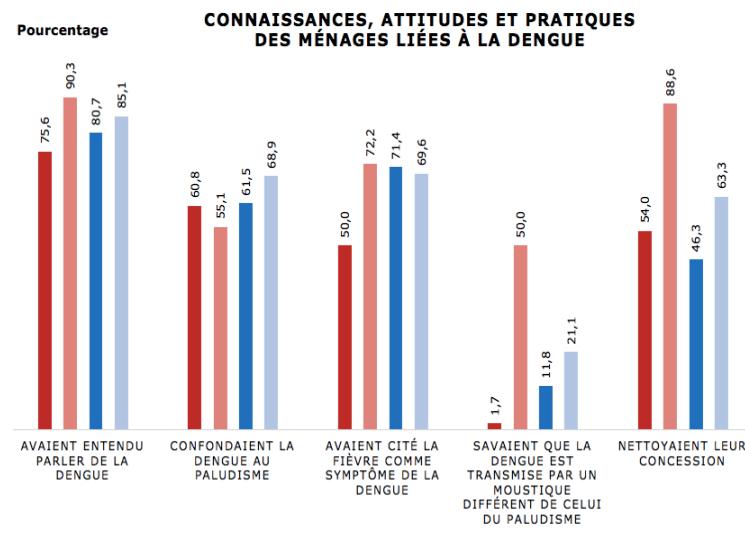
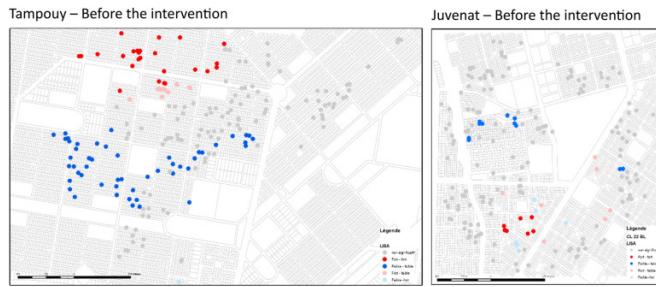
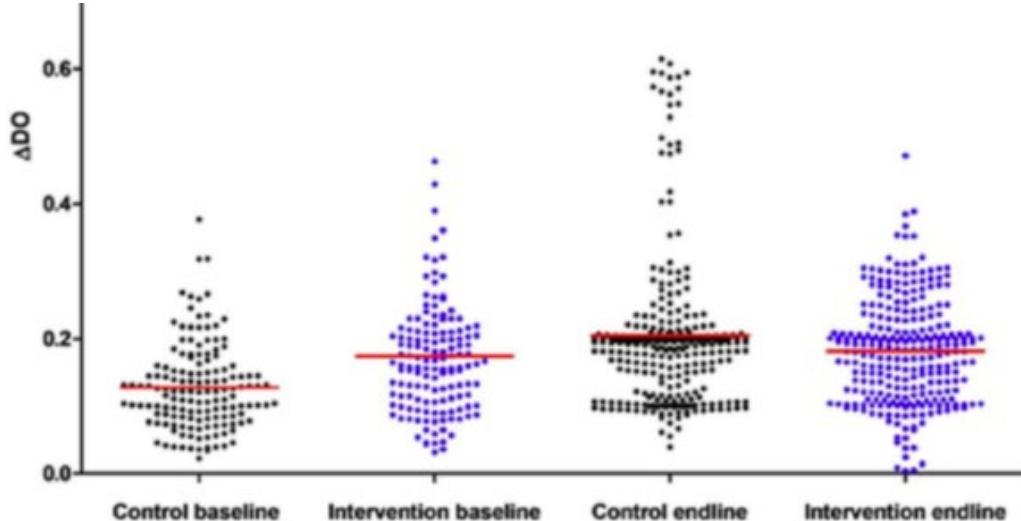


**2. Stades précoces de moustiques**



**3. Connaissances et le changement de comportements**

# Individual IgG response to Nterm-34 kDa





Volume 24, Number 10-October 2018

Research

## Evaluation of Effectiveness of a Community-Based Intervention for Control of Dengue Virus Vector, Ouagadougou, Burkina Faso

Samiratou Ouédraogo<sup>1</sup>, Tarik Benmarhnia, Emmanuel Bonnet, Paul-André Somé, Ahmed S. Barro, Yamba Kafando, Diloma Dieudonné Soma, Roch K Dabiré, Diane Saré, Florence Fournet, and Valéry Ridde

On This Page

Bonnet *et al.* *Infectious Diseases of Poverty*  
<https://doi.org/10.1186/s40249-020-00675-6>

(2020) 9:61

Infectious Diseases of Poverty

CASE STUDY

Open Access

## Impact of a community-based intervention on *Aedes aegypti* and its spatial distribution in Ouagadougou, Burkina Faso

Emmanuel Bonnet<sup>1</sup>\*, Florence Fournet<sup>2</sup>, Tarik Benmarhnia<sup>3</sup>, Samiratou Ouedraogo<sup>4</sup>, Roch Dabiré<sup>5</sup> and Valéry Ridde<sup>6</sup>



# CONCLUSION... plus de...

- Formations et pratiques d'interdisciplinarité et de méthodes de mixtes
- Modestie, collaborations, ouvertures, échanges, etc.
- Recours (intelligent et agile) aux théories et cadres sans s'enfermer
- Réflexivité
- Temps.... et de l'argent !



