Evaluation of participatory disease surveillance for highly pathogenic avian influenza in Africa and rinderpest in Pakistan

CGIAR | Research Program on Nutrition and Health

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Objective

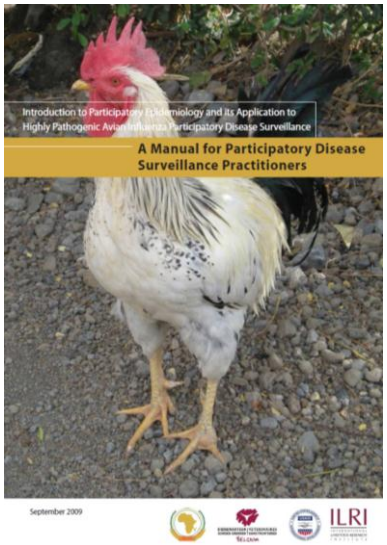
Participatory disease surveillance (PDS)

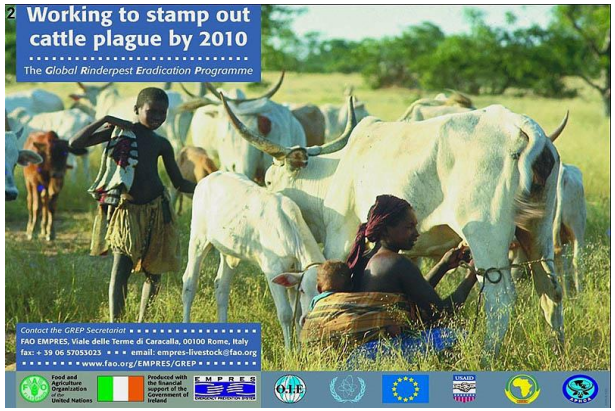
- Application of participatory approaches for disease surveillance

Objective

- Evaluate PDS as a surveillance tool within existing systems

- Build evidence base of appropriate applications





Methods

Framework : 5 Pillars, 34 Indicators

- Relevance to national surveillance
- Effectiveness for disease surveillance and outbreak detection
- Efficiency as a surveillance approach
- Sustainability of PDS
- Impact

Country selection

Nigeria	Tanzania	Benin, Togo
Pakistan	Uganda	

Approach

- PE practitioners (n=74) & key informants (n=48)
- Questionnaires & semi-structured interviews
- Workshops: most significant changes, actions, decisions

Results: Relevance

Relevance to meet national priorities

- Corroborated absence of disease
- Informed control programs

Tool appropriateness: Non-commercial farmers

Usefulness & purpose

- Identification of priority diseases and challenges (surveys)
- Improving farmer-vet relationships
- Outbreak investigation

Results: Effectiveness

Sensitivity & PPV: Not quantified

"Lots of data, little of it used"

- Field exposure led to actions

Data analysis & compatibility: Unit conflict

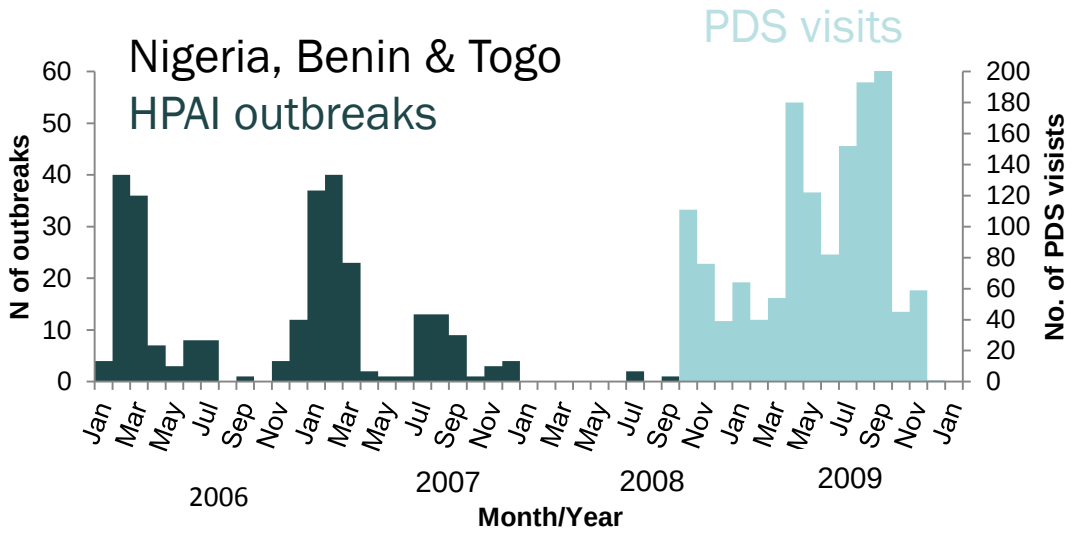
- Integration, Reconciliation, Validation (Togo, Pakistan, PPR)
- Qualitative challenges

Acceptability: In complement

Results: Efficiency

Timeliness: not quantified

- No effect on disease prevention & control
- PDS driven changes, actions & decision not time sensitive



Communication flows: Upwards

Results: Sustainability good news

Ongoing uses

- Economic surveys (FMD Pakistan)
- AFENET annual surveys & outbreaks
- 32% of PE practitioners informally integrate into surveillance

Training & veterinary curriculum

- Graduate: formal (Nigeria, Tanzania)
- Undergraduate: informal (Nigeria, Tanzania, Uganda, Pakistan)
- In-service: sporadic (Uganda)
- Post EDRSAIA: Nigeria, Uganda, Benin

Results: Sustainability bad news

Not considered ‘institutionalized’

- Evidence of use limited (new surveillance protocols & strategies)
- Sustainability road map not clear

Missing pieces

- Standard operating procedures for PDS visits
- Standardized guidelines for data analysis
- Mechanism to integrate data into existing systems
- Legal framework
- Scientific evidence and validation (Pakistan)

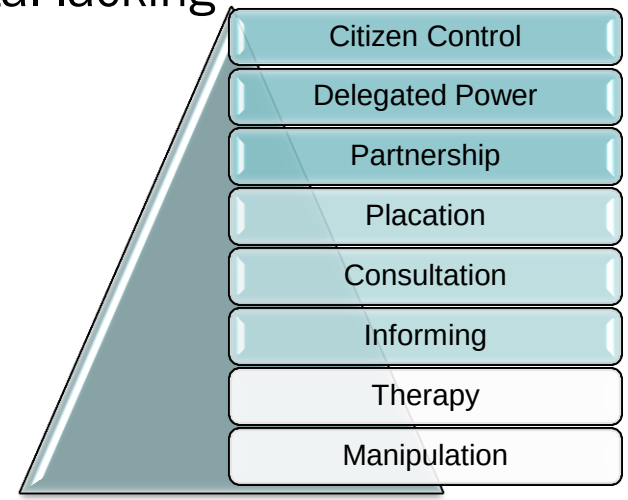
Results: Impact

Changes & contributions outside surveillance

- Universally positive
- 85% reported career or personal benefit
- Veterinary service ‘mentality shift’ & ‘coordination’
- Field epidemiologists ‘investigate outbreaks better’
- Professional skills improved – ‘change agents’

Participatory or extractive?

- Participatory process poorly understood
- Participation, empowerment, social capital lacking
- Emphasized surveillance objectives



What did we learn?

Participatory approaches: appropriate as complements

Consistent with other data: not evidence of performance

Captures community perspectives & improves relationships

Positive attitude to PE

Surveillance data limited

Large amounts of unused qualitative data

Informal use : significant elements lacking

Extraction of data: inconsistent with participatory values

Recommendations

Invest in the evidence: Harness positive effects

- Survey tool as *raison d'être*
- Judicious & selected applications

Recommendations

- Validate data for common applications
- Evaluate sensitivity, PPV & timeliness
- Evaluate cost effectiveness
- Build evidence base: evaluate & document applications
- Develop Standard Procedures for data collection & analysis
- Compare to passive surveillance, farmer field days, media
- Align objectives : local priorities vs. surveillance outcomes

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Thank you