Food and Agriculture Organization of the United Nations

Texas A&M AgriLife

Manual for mentors

FRONTLINE IN-SERVICE APPLIED VETERINARY EPIDEMIOLOGY TRAINING

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Published by:
Food and Agriculture Organization of the United Nations
and
Texas A&M AgriLife – Institute for Infectious Animal Diseases

Rome, 2022

Recommended citation
FAO & AGRILIFE. 2022. *Manual for mentors – Frontline in-service applied veterinary epidemiology training.* Rome.
https://doi.org/10.4060/cb8656en

ISBN 978-92-5-135776-7

Photo cover: ©FAO/Agatha Ayebazibwe

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Acknowledgements

These guidelines were written on behalf of the Food and Agriculture Organization of the United Nations (FAO) under the overall guidance and responsibility of J. Lubroth, former Chief Veterinary Officer, FAO and the former and current Head of the Emergency Centre for Transboundary Animal Diseases (ECTAD) / Global Coordinator, Yilma Makkonen and Baba Soumare.

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Abbreviations and acronyms

EID	emerging infectious diseases
FAO	Food and Agriculture Organization of the United Nations
FETP	Field Epidemiology Training Program
ISAVET	In-Service Applied Veterinary Epidemiology Training
SOP	standard operating procedure
TAD	transboundary animal diseases

About this manual

Mentorship is the cornerstone of field epidemiology in-service programmes and remains foundational to a sustainable workforce development model. Mentors strengthen trainees' outputs and improve the quality of their work. The objectives of this manual are to:

- familiarize mentors with the technical requirements needed to meet programme learning objectives and ensure successful trainee programme completion;
- familiarize mentors with core competencies and developmental needs of trainees;
- help mentors be successful in their roles by outlining mentor responsibilities and expectations;
- understand core dimensions of the mentor-trainee relationship; and
- identify potential challenges in field work and provide mentors with mitigating strategies for an effective mentor-mentee partnership.

TARGET AUDIENCE

This manual is intended for persons who are considering mentoring trainees enrolled in the Frontline In-Service Applied Veterinary Epidemiology Training (ISAVET) at the country or regional level.

Section I

Introduction to Frontline ISAVET programme

BACKGROUND

Given the ever-increasing interconnectedness among human, animal and environmental health, the need for early detection and response to zoonosis, transboundary animal diseases (TADs) and emerging infectious diseases (EIDs) is more important than ever. The social, medical, economic, environmental and political consequences of TADs and EIDs have been well documented. Outbreaks of highly pathogenic avian influenza (HPAI), severe acute respiratory syndrome (SARS), Nipah virus, Rift Valley fever and other EIDs have revealed a critical and urgent need to increase the number of competent veterinary field epidemiologists in every country including the African region. The veterinary field epidemiologist plays an essential and leading role alongside his/her medical counterparts, providing technical inputs for sustainable prevention and control.

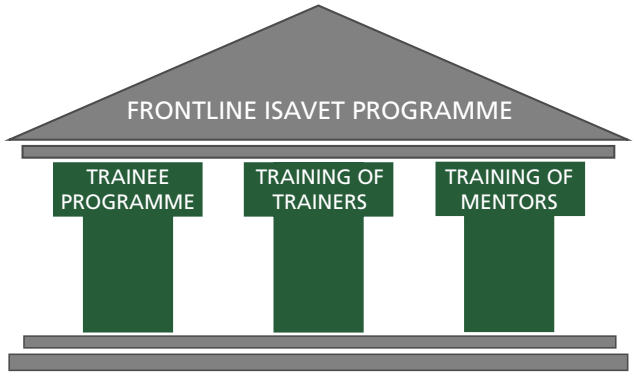
Globally, frontline level Field Epidemiology Training Programs (FETP) are mainly conducted for human health practitioners with funding and technical support from the United States Centers for Disease Control and Prevention (US CDC). In addition to these efforts, there is a great need to support veterinary field epidemiologists who provide animal health services at the local, subnational and national level. In light of this deficit, the United States Agency for International Development (USAID) developed the Workforce Development Action Package as part of the Global Health Security Agenda (GHSA) for the Food and Agriculture Organization of the United Nations (FAO) to implement in collaboration with universities, research agencies and other partners. FAO supported the development of the Frontline In-Service Applied Veterinary Epidemiology Training (ISAVET) Programme at the local level in 14 GHSA beneficiary countries in East, West and Central Africa.

Building and enhancing frontline field epidemiology capacity of the animal health sector is a key activity for developing a One Health workforce. The purpose of Frontline ISAVET Programme is to provide frontline veterinarians and paraprofessionals in government ministries with basic skills in descriptive epidemiology who can conduct effective and timely surveillance, field investigations, and outbreak response for existing, emerging and re-emerging infectious diseases and TADs using a One Health approach, where appropriate. Frontline ISAVET Programme supports joint training, joint investigations, and integration of multidisciplinary approaches for dealing with high impact zoonosis and TADs.

1.1 PROGRAMME DESIGN

The Frontline ISAVET Programme is built on three components to allow for a holistic training and mentoring approach (Figure 1.1). The first component is the 4-month, in-service training programme for trainees. The second component is a 1-week training of trainers (ToT) workshop.

FIGURE 1.1
Components of the Frontline ISAVET programme



The third component is a one-week training of mentors (ToM) workshop. It is important to note that trainers may often also act as mentors. For the purpose of this manual, we will focus on the first and third components.

1.2 TRAINEE COMPONENT: 4-MONTH FRONTLINE ISAVET PROGRAMME

The Frontline ISAVET Programme is comprised of four weeks of classroom training and three months of "in-service" training allowing for each trainee to collect and analyse their respective field data. Upon completion of the in-service training, trainees are asked to submit their written reports for: 1) weekly surveillance reports; 2) data quality audits; and 3) brief field study before presenting their findings in a post-training workshop. The classroom portion of the training covers 7 domains, 14 competencies and 45 skills that were developed by an FAO technical working group as requirements for Frontline ISAVET graduates.

Annex B provides the Competency-Skills Matrix which forms the basis for lesson learning objectives. Figures 1.2A and B present the Frontline ISAVET Programme timeline as well as the composition of the four-week classroom training.

1.3 MENTOR COMPONENT: TRAINING OF MENTORS

Training of mentors (ToM) is provided to selected Frontline ISAVET mentors or future mentors in advance of conducting the Frontline ISAVET course. The ToM workshop

FIGURE 1.2A
Frontline ISAVET timeline

75% applied: 25% classroom training

30 days	Month 1	Month 2	Month 3	Deliver reports
Frontline ISAVET training • *7 domains* • *14 competencies* • *51 skills* • *Finalize design of field study*	**In-service field training** • *Organize and initiate field study with ongoing support of academic and institutional mentors*	**In-service field training** • *Collect, analyse and display data*	**In-service field training** • *Prepare a field study report and MS PowerPoint presentation*	**Reporting** • *Deliver written report* • *Deliver MS PowerPoint presentation* • *Receive feedback* • *Certificate*

Frontline ISAVET

FIGURE 1.2B
Frontline ISAVET at a glance

Three weeks classroom training: one week field training

Week 1	Week 2	Week 3	Week 4	Deliver report
Epidemiological surveillance • *Classroom lectures and exercises*	**Field investigation and response** • *Classroom lectures and exercises*	**Preparedness** **Disease prevention and response** **Communication** **Ethics & professionalism** • *Classroom lectures and exercises*	**Field work training** • *Topic is based on priorities of the host district* • *Learning by doing*	**Report to district** • *Deliver written report* • *Deliver MS PowerPoint presentation* • *Receive feedback* • *Certificate*

Frontline ISAVET

consists of a week-long formal training workshop followed by home-based monitoring and evaluation of future trainers as well as continuing education courses through a four-week follow-up activity for ToM participants.

The goal of Frontline ISAVET mentorship training is to advise and guide mentors on how to best interact with trainees, trainers and workplace supervisors, thus ensuring all parties in the programme are in sync and actively working together for the development of the trainee. This manual is part of the materials used during mentorship training and will serve as a useful resource during the duration of the programme.

1.4 FRONTLINE ISAVET PROGRAMME MANUALS

Separate manuals are available for each target group of the Frontline ISAVET Programme (i.e. trainees, trainers and mentors). Seven manuals are available in English and French. These manuals, the end user, and associated components are located in Table 1.4.

TABLE 1.4
Frontline ISAVET programme manuals, end users and corresponding components

Manual	End User	Component
Frontline ISAVET **Frontline ISAVET Curriculum Trainee Manual**	Trainee	Trainee
Frontline ISAVET Trainer Manual **Frontline ISAVET Curriculum Instructor Manual** **Frontline ISAVET ToT/ToM Manual**	Frontline ISAVET trainers (i.e. course coordinators, unit trainers and invited trainers)	Trainer
Frontline ISAVET Mentor Frontline ISAVET ToT/ToM Manual	Frontline ISAVET mentors (i.e. academic and institutional mentors)	Mentor
Frontline ISAVET Programme Resources and Tools Supplemental Manual	All end users	All components

Section II

Frontline ISAVET field activities and products

Some mentors may have an opportunity to assist with the Frontline ISAVET field training component, and some mentors may play a dual role as trainer and mentor.

Following the successful completion of four weeks of classroom and field studies and partial fulfilment of the requirements of Frontline ISAVET certification, trainees are expected to undertake field activities during the ensuing three months. These activities are intended to have mutual benefit to all parties by strengthening trainee skills while contributing useful information and recommendations to the Ministry of Agriculture and Livestock, in support of local and national mandates. Standardized reports and evaluations are required for each activity.

Required field products for Frontline ISAVET in 12 weeks of field activities include:

1. Conduct two data exercises: COMPULSORY

1. Weekly Animal Health/Events Surveillance Summary Reports are submitted to their mentors and their workplace supervisor; and
2. Data quality audits at the animal health office level (summarize findings through a SWOT analysis or problem analysis using a fishbone diagram to produce a report e.g. case definition).

2. Conduct one brief field study (maximum of 10 pages in length): COMPULSORY

a) Field or outbreak investigation;
b) Survey or knowledge, attitudes and practices (KAP) study;
c) Secondary data analysis; and
d) Other, including value chain mapping and risk pathway analysis and a facility review.

NOTE: Selection of the field activities should be based on priorities of the geographical area where the trainee works, feasibility, and practicality and availability of funds. Field activities and methods should be discussed with the mentor. The trainee should seek approval from the workplace supervisor prior to commencement. The trainee should debrief the district leaders (like District Veterinary Officer, Chief Administrative Officer and District Medical Officer) about the field activity. After the field activity, the trainee should endeavour to present his or her findings to the district political and technical leaders.

Duration of field activity

It is important that the field activity selected can be completed during the three-month period. The expected start and end dates and key milestone activities for the implementation of the selected field activity is therefore important to include in the project proposal that is provided in the trainee manual.

location of field activity

Due to the nature of field work, it is expected that trainees will conduct activities within the local area where they normally work.

Funding of field activity

Funding of field activities should be the responsibility of the home Ministry of Agriculture and Livestock.

2.1 PRODUCT 1. WEEKLY ANIMAL HEALTH/ EVENTS SURVEILLANCE SUMMARY REPORT

Objective: Perform systematic surveillance and analysis of animal health data to improve timeliness of outbreak detection and response.

Activities:

PART 1: Complete Weekly Animal Health Surveillance Forms. Frontline ISAVET trainees should perform weekly systematic monitoring of disease(s) or event(s) under either individual or consolidated disease surveillance in the country during the 12 weeks after the training workshop. If the trainee works for a programme or project (e.g. The Global PPR Eradication Programme, FMD National Control Programmes, etc.), he or she may carry out the surveillance analysis of surveillance data focusing on the relevant animal health problem. The selected disease(s) and event(s) selected should be a priority for the Ministry of Agriculture, another ministry responsible for animal health, or other health institution for whom the trainee works. Mentors should work with the trainees to identify the disease(s) and event(s) for this field activity. Refer to Lesson 8: Elements of a Surveillance Report to review concepts learned during classroom sessions. The trainee will use **Form 4: Weekly Animal Health/Events Surveillance Report** to complete this activity.

PART 2: Select two diseases or events of animal health concern in your local or region to create a graph by week.

The trainee will use Form 4: Weekly Animal Health/Events Surveillance Report to complete this activity.

PART 3: Compile all information into a Weekly Animal Health/Events Surveillance Report. The report should not be longer than two pages. The summary report should include:

- Comments on the diseases and events he or she monitored, particularly if:
  - the disease or event shows up (even if it is just one case) after a long period of zero reporting;
  - a disease shows a high number of cases, an increasing number of cases, or a sudden decline in number of cases; or
  - a disease involves an outbreak investigation involving domestic animals, wildlife or public health.
- The period under surveillance review: what, where and when (e.g. animal, place, time).
- Description of the trend covering previous reporting periods (is it declining/improving, plateau/situation the same, or ascending/escalating/worsening situation).
- Explanation of the observed trend (Is there an established outbreak? Does it suggest an outbreak requiring investigation? Is the observed trend as a result of a public health action that has been taken? Is there non-reporting or other possible reasons you can think about?).
- Explain if a trend in the case fatality is observed.
- Describe briefly any necessary animal and public health action to be taken.
- Make recommendations for further action.
- Mention briefly any surveillance challenges he or she had with compiling that report and with conducting any response activities.

The Frontline ISAVET trainee should attach to the final surveillance animal health/events summary report the completed **Weekly Animal Health/Events Surveillance Report** (see sample in Section 6) and Graphs of the selected diseases/events.

Evaluation: The mentor should use the **"Weekly Animal Health and Events Surveillance Report Scorecard"** to evaluate whether all components of the report are present.

2.2 PRODUCT 2. UNDERTAKE DATA QUALITY AUDITS IN YOUR LOCALITY OR REGION

Objective: This activity aims to raise awareness of the importance of data quality by providing an opportunity for Frontline ISAVET trainees to assess the underlying data reporting and data management processes at animal health facilities at local level.

Activities:

PART 1: Trainees are expected to visit at least three facilities (e.g. sublocal office, abattoir, laboratory, quarantine station, cattle market, etc.) that are sources for animal disease reporting in their locality or region and conduct a data quality audit in each. Trainees will use the Data Quality Audit Worksheet. Questions on the worksheet need to be customized to fit the trainee's setting. Trainees need to work with their mentor to plan and conduct the data quality audits in their locality.

PART 2: Use the results of the data quality audit to perform a SWOT analysis. Refer to Lesson 4: Data Quality Principles and Lesson 9: Making recommendations for animal disease prevention and control to review concepts learned during classroom sessions. Mentors will assist trainees to analyse the key findings from the data quality audits and provide recommendations to improve existing local surveillance data collection and reporting (e.g. development of a new data-collection tool, regular meetings to review case definitions, data coding and nomenclature, establish weekly notifications to improve timeliness of reporting, etc.). Trainees are encouraged present the results of the SWOT analysis as well as the impact of the recommendations provided to each animal health facility.

Evaluation: Mentors should use the "Data Quality Audit Scorecard" to evaluate whether all components of the data quality audit reports are present.

2.3 PRODUCT 3. BRIEF FIELD STUDY

a) Short report of a field or outbreak investigation

Objective: Trainees should participate in field investigations or investigations of other health emergencies during after their training, giving them the opportunity to apply knowledge gained during their three weeks of classroom sessions and 1 week of field training. The outbreak should be a local or national threat or problem requiring an immediate response. The report should provide specific recommendations, based on the descriptive analysis of data gathered during the investigation in terms of animal, place and time, which have an impact on the animal and public health of the community. Refer to Lesson 12: Field Investigations for Animal Health and Lesson 16: Apply the Steps of an Animal Health Outbreak Investigation for Animal-Specific and Zoonotic Diseases to review concepts learned during classroom sessions. Mentors will assess the feasibility of the trainee participating in outbreak situations outside their immediate, local area.

Activities:

- Conduct field investigation and apply the steps of an outbreak investigation.
- Identify patterns and trends by time, place and animal.

- Indicate if there were changes in the distribution (increase or decrease) of the disease or event over the baseline by age groups, sex, local, region, or over the course of time.
- Create an epidemic curve (e.g. outbreak histogram).
- Use summary tables (which, as well as showing frequencies, show rates by breed, age group, production class, sex and location).
- Debrief with the outbreak and investigative team (lessons learned – what went well and what needs improvement).
- Provide recommendations related to the findings.

Evaluation: The mentor should use the **"Written Report Evaluation Form"** to evaluate whether all components of the report are present.

b) Secondary data analyses of existing local field data or laboratory data

Objectives: Conduct descriptive epidemiological analysis of existing surveillance or outbreak data. Refer to previous Frontline ISAVET Reports related to secondary data analysis for examples.

Activities:

- Collect, assess and manage existing secondary data.
- Identify trends and patterns by time, place and animal.
- Indicate if there were changes in the distribution (increase or decrease – spike, outliers etc.) of the disease/event over the baseline by age groups, sex, local, region, or over the course of time.
- Create epidemic curves (e.g. histogram).
- Use summary tables (which, as well as showing frequencies, show rates by breed, age group, production class, sex and location).
- Provide recommendations related to the findings.

Evaluation: The mentor should use the "Written Report Evaluation Form" to evaluate whether all components of the report are present.

c) A disease survey or KAP study

Objective: Conduct a local survey or KAP study that includes data and sample collection, data management, and report findings based on "Standard Operating Procedures for Epidemiological Surveys and KAP Studies" (Annex C).

Activities:

- Consult a national epidemiologist and mentors to lead the design of a survey or KAP study.
- Plan field work and sample and data collection.
- Undertake field work.
- Undertake analyses.
- Prepare a report which includes the background, objectives, methods, results, conclusions and recommendations.

Evaluation: The mentor will use the "Standard Operating Procedures for Epidemiological Surveys and KAP Studies" (Annex C) and **"Written Report Evaluation Form"** (Annex A) to evaluate whether or not all components of the report are present.

Section III

Recruitment and selection of mentors

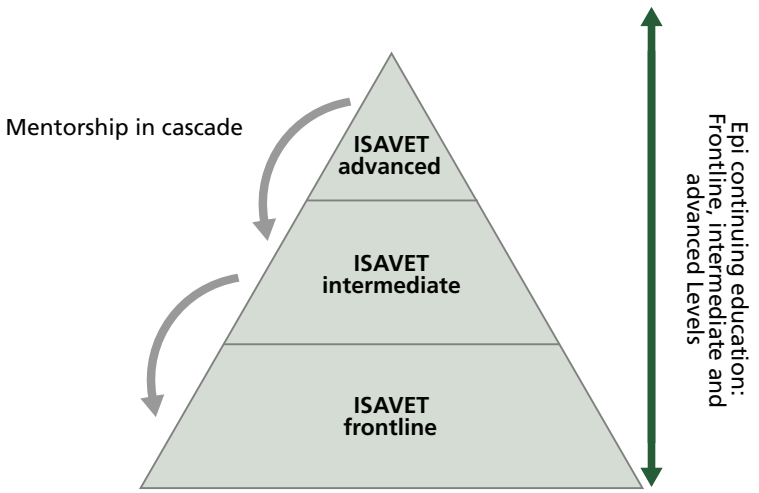
3.1 RECRUITMENT AND SELECTION OF MENTORS

For veterinary field epidemiology in-service programmes, a mentor must be an experienced veterinary field epidemiologist who guides and provides technical support to Frontline ISAVET trainees, most specifically during their field assignments.

Mentorship in the veterinary field epidemiology training model is a dynamic process (Fig. 3.1). Mentors are not only from existing in-country epidemiology staff from the Ministry of Agriculture and Ministry of Health but are also professionals who have advanced through the programme. "Mentorship in cascade" refers to the utilization of graduates who possess the knowledge and qualities to become mentors and provide mentorship to the next cohort of trainees. This process occurs **between** programmes and **within** programmes. For example, mentors can be selected from graduates of level programmes to provide mentorship to the intermediate and Frontline level programmes. In the Frontline ISAVET Programme, potential mentors are selected from one cohort of graduates to provide mentorship to the next cohort of trainees, and so on. This helps build mentorship capacity at an in-country level.

In countries with ISAVET Programmes where a pool of qualified mentors is insufficient, it will be important to have an external technical adviser(s) to provide an overview of what is required of the trainees in their field activities. These external advisers will also assist countries in building their mentorship capacity by identifying and training potential mentors. They will also help identify other experts who can provide technical feedback to Frontline ISAVET trainees.

FIGURE 3.1
Proposed ISAVET mentorship system



Adapted from the Field Epidemiology Training mentorship structure.

Section IV

Mentoring for the Frontline ISAVET programme

4.1 WHAT IS MENTORING?

"If you cannot see where you are going, ask someone who has been there before."

(J Loren Norris)

As a general concept, mentoring is a process in which an experienced individual helps another in developing specific skills, knowledge and confidence that will enhance the less-experienced person's professional and personal growth. This can take place through semi-structured guidance and other learning activities.

Frontline ISAVET mentors provide additional practical experience and perspective in field veterinary epidemiology. They reinforce lessons learned during coursework and prevent major errors due to trainees' inexperience while strengthening their outputs. Finally, mentors accelerate their training and development in animal health surveillance, field and outbreak investigation, and emergency preparedness and planning. Frontline ISAVET Mentors also draw benefits from the mentoring relationship. Mentors directly contribute to the development of a skilled veterinary workforce in their country. Solving animal health problems during the mentorship process provides an opportunity for growth and personal fulfilment for mentors and mentees. Mentors have the opportunity to share their wisdom and experiences, evolve their own critical thinking, extend their professional network and deepen their mentorship and leadership skills.

Ideally, a mentor-mentee relationship will continue after the completion of their programme. These relationships will result in a sustainable workforce development model and an active network.

4.2 GENERAL MENTORS ROLES AND RESPONSIBILITIES

Mentor responsibilities are directly connected to the expected field activities of the Frontline ISAVET programme. Although mentors' primary responsibility is to provide technical guidance and oversight to trainees' activities, they are also involved in coaching, advocacy and other cross-cutting tasks (Table 4.2).

TABLE 4.2
Frontline ISAVET mentors' role and responsibilities

Technical Assistance/Coaching
• Provide guidance to trainees during field project selection, balancing animal health priorities, resources, and time constraints.
• Provide technical support on the design and conduct of field activities including data collection, analysis, and interpretation.
• Provide positive, constructive and timely feedback to improve field performance and quality of field products and activities.
• Review technical field reports based on established criteria.
• Review trainees' progress toward the acquisition of core competencies.
• Look for and provide opportunities for trainees' professional development including attending conferences, identifying field projects, publishing findings, attending seminars, and workshops.
• Introduce trainees to public health professionals throughout the public health system to help the trainee broaden his/her network of professional colleagues.
Advocacy
• Mentors are advocates for field epidemiology in-service programmes. As part of their mentorship duties, mentors perform a number of site visits in different regions of the country. This allows them to raise the profile and underscore the value of in-service training as viewed by a variety of veterinary professionals and the community at large.
• Mentors are a link and liaise with the ministry responsible for animal health or veterinary training institutes through identifying field related challenges/gaps (workforce capacity) and suggesting ways of mitigating those challenges.
Cross-Cutting Tasks
• Interact with key stakeholders and subject matter experts to facilitate completion of field projects.
• Communicate regularly with ISAVET Coordinator and Programme Staff.
• Coordinate collaboration at the field site and liaising with all work supervisors to identify suitable projects.

Frontline ISAVET mentors are expected to:

- be available for the mentee;
- visit the field site of their mentor at least once during their training;
- attend seminars and workshops when their mentee is presenting;
- monitor progress of the mentee;
- ensure the quality of reports; and
- advocate for time to complete Frontline ISAVET Projects at the mentee's worksite.

Mentors are not expected to:

- have an instant rapport with their mentee;
- tell their mentee what to do;
- be an expert in every area;
- have a friendship with their mentee;
- do the work for the mentee; or
- manage the mentee as a supervisor would.

4.3 SPECIFIC MENTOR TASKS BY FIELD ACTIVITY *(ADAPTED FROM THE FETP FRONTLINE MENTOR CHECKLIST)*

4.3.1 Weekly Animal Health/Event Surveillance Report

- Provide guidance to mentees in creating the surveillance summary report using the **Form Weekly Animal Health/Events Surveillance Report.**
- Review weekly reports and advise on issues regarding "silent" offices, timeliness and disease occurrence.
- Provide technical assistance before, during and after data collection, analysis and interpretation using the **Mentoring Checklist**.
- Use the **Weekly Animal Health/Events Surveillance Report Scorecard** to help the trainees monitor the quality of their work.

4.3.2 Data quality audit in your locality or region

- Work with your mentee to "customize" the standard Data Quality Audit Form. Consider the local setting and help them select the questions that will be most useful for their audit. Mentees should not try to ask all questions included in the form if they do not fit the actual context.
- Assist trainees with establishing a schedule to conduct the data quality audits.
- Ensure that each trainee visits at least three animal health sites/facilities. You are encouraged to support the trainees by going with them on their first site visit to introduce the ISAVET Programme, explain the field activity to senior staff and assist the trainee on the correct use of the Data Quality Audit Form. Mentors should also advocate to allow time for the trainee to do the Frontline ISAVET at the workplace.
- Advise trainees on protocols and procedures for behaviour while visiting a site. Encourage them to review Lesson 28: Professionalism in the Practice of Veterinary Field Epidemiology to review concepts learned during classroom sessions.
- Conduct an after-action review after the first site visit and advise on improvements for subsequent visits.
- Provide technical assistance before, during and after the audit. Use the Data Quality Audit Scorecard to help the trainees monitor the quality of their work.
- Have a conversation with your trainees about their experience.
- Assist trainees to analyse key findings using the SWOT tool.
- Assist trainees to prepare a Data Quality Audit Report.

4.3.3 Short report of a field or outbreak investigation

- Provide suggestions for building or nurturing a productive relationship with other members of the Investigation Team.
- Provide suggestions for building or nurturing a productive relationship with the epidemiology and laboratory staff.
- Provide advice, as appropriate, to your mentee regarding his/her role on the Investigation Team.
- Use the Written Report Evaluation Form to help your mentee(s) monitor the quality of their work and to score the final product, if necessary.
- Accompany the trainee at least until the descriptive and analytic phases of the investigation are complete. Throughout the Frontline ISAVET Programme, the trainee should be encouraged to participate in as many field and outbreak investigations as possible as part of the Investigation Team.

4.3.4 Secondary data analyses of existing local field data or laboratory data

- Assist trainees in selecting a planned field study that involves analysis of secondary data appropriate for the study objectives.
- Assist trainees in coordinating with field and laboratory personnel from animal health, public health and wildlife health.
- Guide trainees to document how the original data was collected and in the transcription from hard copy to electronic format by creating a line list.
- Assist trainees in evaluating the quality of the secondary data and its potential for further analysis using the Data Quality Scorecard and data management principles found in "Standard Operating Procedures for Epidemiological Surveys and KAP Studies".

- Assist trainees in applying appropriate analysis to the data and in preparing a report of the secondary data analysis with recommendations aimed at improving surveillance data – including data quality and key findings of existing data.

4.3.5 A disease survey or KAP study

Objective: Conduct a local survey or KAP study that includes data and sample collection, data management, and report findings based on "Standard Operating Procedures for Epidemiological Surveys and KAP Studies".

Activities:

- Facilitate consultation with a national epidemiologist to lead the design of the survey and KAP survey tool. Assist with the planning of fieldwork as well as sample and data collection.
- Advise trainees on what to include in the report (including the background, objectives, methods, results, conclusions and recommendations).

Evaluation: The mentor will use the "Standard Operating Procedures for Epidemiological Surveys and KAP Studies" and "Written Report Evaluation Form," to evaluate whether all components of the report are present.

4.4 SKILLS FOR SUCCESSFUL MENTORING

Effective mentorship not only requires subject matter expertise and knowledge of the programme but a set of soft skills and abilities that allow for a successful mentoring relationship and positive mentee experience in completing the field activities.

Ideally, mentors should:

- keep an "open door" policy whenever possible and encourage discussion with your trainee;
- inspire others with positive, constructive feedback;
- celebrate accomplishments of mentees;
- practice the art of active listening and questioning;
- balance management and autonomy;
- be open to new ideas; and
- monitor the progress of the trainee and encourage them to complete projects on time.

4.5 CORE MENTORING SKILLS

4.5.1 Active listening

Active listening is defined as "the process of receiving, constructing meaning from, and responding to spoken and nonverbal messages". Active listening is the most basic mentoring skill. Listen carefully first; problem solve much later. This programme seeks to build critical thinking among Frontline ISAVET trainees. If your mentees have a habit of immediate problem solving, see if you can help them be better listeners and problem explorers and to develop options instead, considering the advantages and disadvantages of each. Mentors should resist the impulse to turn the conversation to their own experiences and opinions and to find immediate solutions to problems they may be hearing.

Below are some ways you indicate to your mentee(s) you are actively listening:

- Use appropriate nonverbal language such as looking directly into your mentee's eyes, nodding your head, leaning slightly toward them and frowning or smiling when appropriate.
- Rephrase what your mentee said to show that you heard what they said and to ensure that your interpretation of what they said is accurate.
- Remember that every comment, no matter how strange, is an opportunity for professional and personal growth for the mentee.
- Avoid interrupting your mentees while they're talking;
- Remember to show interest whenever they present the results of their fieldwork.
- Summarize the key elements of what each of you said.

4.5.2 Building trust

Trust develops over time. The more that your mentees trust you, the more committed they will be to your partnerships with them, and the more effective your mentorship experience will be. To become trustable, you must:

- spend appropriate time together;
- follow through on your appointments with them whether in one-on-one sessions or site visits;
- respect your mentees' boundaries;
- follow through on items you promised to provide;
- admit your errors and take responsibility for correcting them; and
- tactfully tell your mentees if and why you disagree or are dissatisfied with something.

Particularly with cross-difference (e.g. gender, culture, style, age) mentoring, trust building is crucial and has to be developed over time.

4.5.3 Encouraging

The most valued mentoring skill is giving encouragement. This includes giving your mentees recognition and sincere positive verbal feedback on a regular basis. By doing so, you help increase your mentees' confidence. This has a huge impact on the quality of their field products and overall performance. Below are a few ways to provide genuine, positive feedback to your mentees:

- Compliment your mentees on accomplishments and actions.
- Point out their positive traits (such as perseverance, commitment and honesty) in addition to their performance and accomplishments.
- Praise them privately (one-on-one).

- Commend them in front of other mentees and their supervisors (being sensitive to any cultural and style preferences regarding public praise).
- Express thanks and appreciation.

In mentoring, err in the direction of too much praise, rather than too little. Some human development experts recommend a ratio of four or five praises for every corrective remark.

4.5.4 Identifying goals and current reality

As a mentor you should have a personal vision, specific goals for your mentoring and a good grasp of current reality. Be clear on and talk to your mentees about their strengths and limitations – you should be aware of your own strengths and limitations as well – so you can develop the best mentoring workplan for them. The more aware you are of these, the more likely you will be to assist them effectively. Effective mentors and mentees are constantly fine-tuning this self-knowledge, incorporating new feedback and observations on a regular basis.

If you possess these skills in an adequate quality and quantity – and if you use them as frequently as called for – your chances of having mutually satisfying and productive mentoring relationships will be greatly enhanced.

4.6 CRITICAL MENTORING SKILLS

4.6.1 Instructing and developing capabilities

All Frontline ISAVET mentors do some teaching or instructing as part of their mentoring responsibilities. You will assist your mentees in these areas by:

- helping find resources whenever needed (e.g., surveillance manuals, books, articles, software, websites and other information sources);
- teaching your mentees new knowledge, skills and attitudes by explaining, giving effective examples and asking thought-provoking questions; and
- helping them monitor performance and refocusing steps as needed using the tools provided in this manual.

4.6.2 Inspiring

The ability to inspire mentees is one skill that separates superb mentors from very good ones. Strive to set an example yourself and find opportunities to expose your mentees to other people (e.g., field epidemiologists or public health professionals from different sectors) and situations that can inspire and excite them to improve their knowledge and skills.

4.6.3 Providing corrective feedback

Effective mentors should also be willing and able to give mentees corrective feedback. Be direct but tactful when you observe your mentee(s) performing in less than desirable ways. Ideally, you should have discussed with your mentee in your first one-on-one session how they would like to receive this feedback. mentees are more willing to hear corrective feedback if they have given permission and know in advance it's coming. Corrective feedback should be given in private and paired with useful suggestions on how to address the behaviour you would like for your mentee to correct. Remember to use the encouragement more often than you provide corrective feedback.

4.6.4 Managing risks

Mentors should protect their mentees from making unnecessary mistakes. For example, you may have to help your mentees recognize the risks (e.g. ethical issues, data privacy concerns, etc.) involved in conducting investigations or gathering data for surveillance analysis. Make suggestions to help them prepare and use this as a learning opportunity to reflect on what they have learned during their training.

4.6.5 Open door

One of the most common criticisms of mentors from mentees is that they are too busy for the mentee. Set a time for the mentee, especially in the beginning of the training, to ensure that the mentee is on the right track. Be available for the mentee and encourage regular scheduled meetings with your mentee.

Mentoring for Frontline ISAVET Programmes often requires an "open-door" policy. This gives mentees the feeling that they are important and can count on you. If you are worried that your mentees will be visiting every other day, make sure to offer the open-door policy with a few restrictions.

Use Form 1 "My Mentee Needs Analysis" to help recognize specific weaknesses or growth areas in your mentees so you can develop the best mentoring workplan for them. Results of this assessment can be complemented with the pre- and post-test scores. The pre-test scores help mentors assess trainees' baseline knowledge. Post-test scores will help mentors identify areas where mentees still need reinforcement.

Use Form 2 "My Mentoring Skills" to assess your potential to be a successful mentor by rating yourself on the core and critical mentoring skills.

Section V

Evaluating and improving your mentorship experience

5.1 STRATEGIES FOR AN EFFECTIVE MENTOR-MENTEE PARTNERSHIP

TABLE 5.1:
Strategies for an effective mentor-mentee partnership

Communication and Dependability: *Mentors should plan to be proactive early on, modelling to their mentees that they are accessible and eager to be a partner and a resource.*
• At the start of the programme, meet your assigned mentees and set a communication plan. – Determine how often to communicate. – Determine the method of communication (text, telephone, email, etc.). • Visit your mentees at least once in the field – preferably at the beginning, again toward the middle and at the end of the field period – and visit a facility with them if you can.[1] – Organize an agenda of visits. Having a plan beforehand helps the mentor do their job more efficiently, particularly if she/he has to travel long distances for each visit. – Be available for agreed-upon meetings. • Speak regularly with your mentees and provide timely guidance on the completion of their field projects. • Avoid distractions such as checking email or phone messages while talking with your mentees. • Have an open-door policy so trainees can feel free to reach out to you any time they need help. If they do so, it is a signal of a good rapport. • Comply with programme staff requests for communications. projects, publishing findings, attending seminars, and workshops.
Providing Feedback and Support:
• Be supportive and attend your trainee's presentation of their field products/activities. • Help your mentee prepare for the presentation. • Help your mentee do the work using the suggestions in the mentoring checklists as a guide. • Acknowledge your mentee's successes and progress and "catch them doing something right." • Before correcting a mistake, ask your mentees for their own ideas for improvement. • Provide suggestions, then allow the participants to make corrections themselves. • Before calls, meetings and visits with mentees, be well-prepared by reviewing relevant materials and expectations for the engagement. • The results of post-test 1 can be used to develop a list of topics which may need to be addressed or reinforced during your visits. That is part of preparing an agenda for each trainee so that you can do your job more efficiently.
Setting Goals & Expectations:
• Help your mentee set realistic expectations and goals. • Encourage, but do not demand. • Remember sometimes changes take time. Do not get discouraged if a mentee is not making significant improvements. • Mentors have a great deal of impact that may not be immediately evident. Look for small signs such as improved self-confidence, showing up for meetings and expressing appreciation.

[1] Based on previous experience, each participant needs an average of at least three visits and two phone calls between visits during the course of their field intervals.

5.2 EVALUATING THE EXPERIENCE

Through continuous mentorship monitoring and evaluation field epidemiology in-service programmes can effectively implement an experiential learning experience that is informed by feedback from mentors and mentees alike. This includes identifying the critical partnerships needed to foster field mentorship and recognizing opportunities for additional mentorship training and technical support. Collecting and utilizing mentee and mentor feedback can be a powerful tool in enhancing the relationship between mentor and mentee and can inform funders on which changes to implement in the curriculum to improve future training of technical staff (including mentors).

Mentors should continuously seek and provide feedback from and to mentees as outlined in the strategies above in both formal (scheduled communications) and informal (providing periodic encouragement) methods. In addition, mentors are expected to complete the **Mentee Evaluation Form** on a monthly basis and send it to the Frontline ISAVET Coordinators. This instrument provides a mechanism for the mentor to describe and document their relationship with the mentee and their progress on the field project and activities. Likewise, the mentee is expected to complete a monthly **Mentor Evaluation.** These two streams of information provide invaluable information to the ISAVET Programme Team. They help to identify ways to facilitate a particular mentor/mentee relationship, especially if it may be experiencing difficulties. The evaluations also identify opportunities to improve the mentorship component of Frontline ISAVET in current and future programme offerings.

5.3 MOST COMMON MENTORING CHALLENGES

In this section, we describe the most common challenges encountered by mentors during their field mentorship and strategies implemented to measure and improve mentor-mentee experiences and increase the quality of their outputs.

Mentors may encounter a number of challenges while in the field. A few examples are included below, along with mitigation strategies for each.

TABLE 5.3

Challenge	Mentor Mitigation Strategies
Assigned mentee does not have prior surveillance experience and/or presents knowledge gaps (e.g. basic math calculations, Excel, Power Point, etc.).	• Identify areas of weakness using the pre-test results. • Work with the instructor to address knowledge gaps. • Use the post-test results to build your workplan (e.g. schedule more frequent one-on-one sessions to provide learning reinforcement). • Work with your mentee to select a field project that best fits his/her needs and capability.
Mentee has poor literacy and computer skills.	• Work with your mentee to select a field project that best fits his/her needs and experience level. • Consider paper reports rather than Power Point presentations.
Other work demands that the mentor limit their flexibility to accommodate to mentee's work schedule.	• Determine a number of mentees you will accept based on your current workload. It may be necessary to have only one mentee at a time. • If your schedule is not as flexible, you may be able to request "higher" performing mentees based on their post-test training results. They usually need fewer one-one sessions. You still have to provide supervision and fulfil all your mentoring responsibilities.
Difficulties arise engaging supervisors and other animal health authorities to support the mentee's field projects.	• Work with your Frontline ISAVET Technical Lead and National Programme Office to gain support.
Logistic difficulties arise.	• Consider meeting with a former mentor in advance to understand all logistics related to supervision of field activities. • Work with your technical lead and programme office to obtain all logistic support need to perform your role.
Mentor does not have expertise in the field project topic (biostatistics, sampling, laboratory, specific disease, etc.).	• Mentor can refer mentee to others who have the necessary expertise.
Access to data and other support is limited.	• Articulate the concept and importance of the Frontline ISAVET Programme internally and externally.

5.4 MONITORING AND EVALUATION

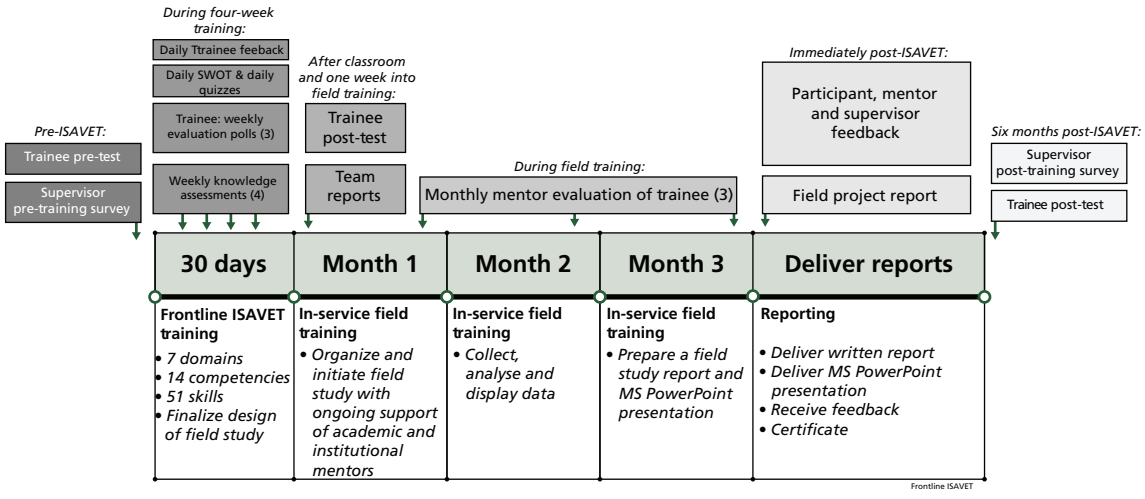
While the overall Frontline ISAVET monitoring and evaluation (M&E) approach includes a large number of indicators and corresponding data-collection tools and activities, only a subset of these data-collection activities is relevant to the Frontline ISAVET mentoring component. The M&E tools relevant to mentors, along with the indicators measured by each, re summarized in Table 5.4. Note that mentors are not responsible for these data-collection activities, but they are included in the table to provide a comprehensive overview of the M&E strategy. The specific tools which are relevant to mentors are covered in the sections that follow.

Figure 5.4 illustrates the Frontline ISAVET M&E activities timeline.

TABLE 5.4
Frontline ISAVET M&E data-collection tools and corresponding indicators

Data Collection Tool/Activity	Indicators Measured
Mentor Evaluation Form	Mentor evaluation (by trainee)
Mentee Evaluation Form	Trainee attitude Trainee confidence and commitment
Trainee 6-month Post-test	Trainee knowledge and skills application Knowledge dissemination Mentor evaluation (by trainee)
Programme monitoring	Core model curriculum and materials faculty and mentor resources # Qualified trainers and mentors # Graduates from workshops # Scientific publications # Conference presentations

FIGURE 5.4
Frontline ISAVET monitoring and evaluation timeline



Annexes

Annex A

Frontline ISAVET resources

Form 1: My Mentee Needs Analysis

Form 2: My Mentoring Skills

Form 3: Mentoring Checklist

Form 4: Weekly Surveillance Summary Report

Form 5: Weekly Surveillance Summary Report Scorecard

Form 6: Data Quality Audit Form

Form 7: Data Quality Audit Scorecard

Form 8: Written Report Evaluation Form

Form 9: Oral Presentation Review Form

Form 1

Frontline ISAVET My Mentee Needs Analysis

Directions: Use this tool to help recognize specific weaknesses or growth areas in your mentees so you can develop the best mentoring workplan for them. Results of this assessment can be complemented with the pre-test and post-test scores.

1. What is the level of education of the mentee that is assigned to you?
2. Has your mentee had previous formal training in veterinary medicine or epidemiology?
3. What is the typical level of reading and math comprehension among mentees assigned to you?
4. Has your mentee ever responded or being part of a team responding to an outbreak of zoonotic disease? If so, briefly explain his or her experience.
5. If "no" to Question 3, what competencies does he or she have to develop? What skills does he or she need to improve in the Frontline ISAVET Programme around the investigation of zoonotic diseases?
6. Rate your mentee's skill (1 to 5, where 1 is very low and 5 is very high) in the following areas: One Health practices, animal and livestock surveillance and investigation, animal and livestock production and health promotion, specimen collection and submission, and response to outbreaks of transboundary animal diseases (TAD).
7. Which Internet-connected electronic devices do mentees under your mentorship supervision typically have access to, either at work or at home (computer, laptop, or mobile phone with web browser)?

Form 2

Frontline ISAVET My Mentoring Skills

Directions: Assess your potential to be a successful mentor by rating yourself on the core and critical mentoring skills. For each skill, circle the appropriate number. Total the numbers for each set of skills and read the interpretations.

Core Mentoring Skills	Quality of Skill			
	Excellent	Very Good	Adequate	Poor
Active listening	5	3	1	0
Building trust	5	3	1	0
Encouraging	5	3	1	0
Identifying goals and current reality	5	3	1	0

16–20: Excellent core skills. You could coach others. Concentrate improvement efforts on fine-tuning your style.
11–15: Very good skills. Continue to polish those skills that will make you even more effective and desirable as a mentor or mentee.
6–10: Adequate core skills. Work on your less-developed skills in order to have better relationships
5 or under: You'll benefit from coaching and practicing core skills. Acquire training or coaching and observe others who have strong skills.

Core Mentoring Skills	Quality of Skill			
	Excellent	Very Good	Adequate	Poor
Instructing/Developing Capabilities	5	3	1	0
Inspiring	5	3	1	0
Providing Corrective Feedback	5	3	1	0
Managing Risks	5	3	1	0
Opening Doors	5	3	1	0

20–25: Excellent core skills. You could coach others. Concentrate improvement efforts on fine-tuning your style
15–19: Very good skills. Continue to polish those skills that will make you even more effective and desirable as a mentor or mentee.
10–14: Adequate core skills. Work on your less-developed skills in order to have better relationships.
9 or under: You'll benefit from coaching and practicing core skills. Acquire training or coaching and observe others who have strong skills.

Form 3

Frontline ISAVET Mentoring Checklist

Field Activity Description	Completed		Observations
	Yes	No	
Field Product I: Weekly Animal Health/Events Surveillance Report			
Help mentee identify diseases or events to be monitored weekly.			
Review part 1, 2 and 3 of this activity (see pages 8 and 9 of this manual) with mentee and ensure he or she understands how to appropriately complete the form and what to include in the two-page report.			
Review weekly tables and graphs and summary report.			
Provide recommendations for improvement.			
Field Product II: Perform a data quality audit in your local or region			
Help mentee identify animal health facilities for audit and person(s) to be interviewed.			
Review questionnaire with mentee and make necessary adaptations prior to use.			
Accompany mentee in at least ONE interview and provide feedback on performance.			
Review with mentee information obtained from interviews and results of SWOT analysis.			
Provide recommendations for improvement.			
Field Product III: Short report of a brief field study **a) Short report of a field or outbreak investigation;** **b) Secondary data analyses of existing field data or laboratory data; and** **c) A disease survey or KAP study.**			
Help mentee identify appropriate field and or outbreak investigation to participate in.			
Review with mentee the Field and Outbreak Investigation Report Scorecard to help him or her monitor the quality of their work.			
Review steps for field or outbreak investigation.			
Provide advice to your mentee, as appropriate, regarding his/her role on the Investigation Team.			
Engage mentee during descriptive and analytic phases of the investigation.			
Review case definitions, tables and graphs, and summary report.			
Provide recommendations for improvement.			
Monitor mentee surveillance data collection, analysis and reporting.			
Assist mentee to select and design field survey or KAP study.			

Form 4

Frontline ISAVET Weekly Animal Health Surveillance Summary Report

Local_____
Region_____
Country_____

Report number: XX
Week ending DD/MM/YYYY
Trainee name_____

PART 1: WEEKLY SUMMARY INCLUDING THE FOLLOWING:

- total number of cases of diseases you selected to monitor this week (current and cumulative)
- number of sublocals or facilities (e.g. abattoirs, markets) that did not report (current and cumulative)
- number of sublocals or facilities (e.g. abattoirs, markets) that did report
- zero reporting (required)

TABLE A.1
Weekly sublocal reporting summary of completeness and timeliness

Sublocal Name	No. Reports Received This Week (N/%)	Cumulative YTD* No. (%) Weekly Reports Received in [Year]	Mode No. Days from Laboratory Submission to Local Reporting	Mode No. Days from Local Notification to Farmer Reporting (Days)	No. of Surveillance Events Reported this Year
Sublocal/Facility A					
Sublocal/Facility B					
Sublocal/Facility C					
Sublocal/Facility D					
Sublocal/Facility E					
Sublocal/Facility F					
Sublocal/Facility G					
Sublocal/Facility H					
	Total:	% Cumulative YTD:	Local Mode:	Local Mode:	Local Total =

*YTD: Year to date

Legend

This Week			% Cumulative YTD		
On time T	Late L	No report received NR	≥80% on time	≥50–79.9% on time	<50% on time

Example

Sublocal/ Facility	This Week	Cumulative YTD
Example AA	L	80.8
Example BB	T	90.0
Example CC	NR	60.4

TABLE A.2
Frontline ISAVET Weekly Disease Reporting Form

Animal						Method	Time					Place	
Species or Type	Class	Total No. at Risk	No. Sick	No. Dead	Disease(s) Suspected (S) or Confirmed (C)	Details: (Age, breed, sex, etc.)	Active (A) or Passive (P)	Date of Visit	Date Symptoms First Observed	Date of first death	Date of Laboratory Submission	Sublocal Name	GPS Coordinates Lat./Long.
Cattle	Dairy												
	Beef												
	Dual purpose												
	Breeder												
Sheep	Meat												
	Milk												
	Dual purpose												
	Breeder												
Goats	Meat												
	Milk												
	Dual purpose												
	Breeder												
Poultry	Meat												
	Eggs												
	Dual Purpose												
	Breeder												
Equine	Horse												
	Donkey												
	Mule												
	Other												
Pets	Dog												
	Cat												
	Other												
Wildlife	Specify												

TABLE A.3
Frontline ISAVET Summary of Key Notifiable Diseases this Week

Disease	Current Month: XX			Cumulative: Month XX		
	Cases	Deaths	Case Fatality Rate	Cases	Deaths	Case Fatality Rate

PART 2: USING DATA FROM TABLE 3, SELECT AT LEAST TWO DISEASES OR EVENTS OF ANIMAL OR PUBLIC HEALTH CONCERN IN YOUR LOCAL OR REGION TO CREATE A GRAPH WEEK BY WEEK.

PART 3: COMPILE ALL INFORMATION INTO A SURVEILLANCE ANIMAL HEALTH EVENTS TWO-PAGE SUMMARY REPORT. THE SUMMARY REPORT SHOULD INCLUDE:

- Comments on the diseases/events you monitored, particularly if:
  - the disease or event shows up (even if it is just one case) after a long period of zero reporting;
  - a disease shows a high number of cases, an increasing number of cases, or a sudden decline in number of cases; or
  - a disease involves an outbreak investigation involving domestic animals, wildlife or public health.
- The period under surveillance review: what, where and when.
- Animal species affected and population at risk.
- Description of the trend covering previous reporting periods (is it declining/improving/plateauing; is the situation the same, or ascending/escalating/worsening?).
- Explanation of the observed trends and patterns (Is there an established outbreak? Does it suggest an outbreak requiring investigation? Is the observed trend as a result of a public health action that has been taken, non-reporting, or other possible reasons you can think about?).
- If a trend in the case fatality is observed, please explain.
- Describe briefly any necessary animal and public health actions to be taken, describe previous animal and public health actions which have been taken and any noticed effect, and make recommendations for further action.
- Mention briefly any surveillance challenges you had with compiling that report and with conducting any response activities.

Form 5

Frontline ISAVET Weekly Animal Health Surveillance Summary Report Scorecard

Trainee's name_____
Local/country_____
Date_____

Please use this scorecard to ensure the quality of this field product and provide constructive feedback. You may choose to share the scorecard in advance with your trainees to use it as a guide for completing their field activity.

Please check the appropriate response:	Yes	Partial	No
1. Facility Weekly Reporting table includes:			
• facility name and type (dispensary or health centre)			
• reporting status for each week			
• percent of timely reporting statistics based on established threshold			
2. Late, Timely and Non-Reporting are colour coded to improve readability.			
3. Weekly Disease Summary chart includes:			
• reportable diseases for local			
• current and cumulative data for number of suspected and confirmed cases, deaths and case fatality rate			
4. Zero-reporting requirements are met.			
5. Comments section includes important details not included in chart (e.g.,confirmed and suspected cases recorded for specific diseases).			
6. Line graph includes descriptive Title, Legend and X and Y Axis labels.			
7. Graph plotting accurately reflects data from weekly reports.			

ADDITIONAL FEEDBACK ON:

1. Evaluate how the Frontline ISAVET trainee has completed the seven elements of the report scorecard.
2. Provide guidance on an action plan to address deficiencies in the surveillance system based on the completeness, timeliness, accuracy and action taken in response to reported disease events and trends in the Weekly Animal Health Surveillance Report.

Form 6

Frontline ISAVET Data Quality Audit Form

Field_____ Country_____

Region_____ Facility_____

PERSON INTERVIEWED

Name_____ Title_____

The purpose of this Data Quality Audit Tool is to assess:
1) Data collection; 2) Data analysis; 3) Data use; and 4) Laboratory data
Chen *et al.,* Int. J. Environ. Res. Public Health 2014, 11, 5170–5207; doi:10.3390/ijerph110505170

Date: Audit		Source/Facility Attribute	Contact Person: Measure	Output
Data Collection	1	Collector	Name of surveillance focal points: Indicate whether training has been provided on data collection.	
	2	Collection Method	Specify the method of data collection from the farm, village or facility (e.g. abattoir) to the local level including: 1) Field observation; 2) Interview; 3) Survey (structured, unstructured); and 4) Audit of existing field data. **Attach forms if possible.**	
	3	Priority Diseases	List the priority diseases under surveillance and include case definitions.	
	4	Completeness	Completeness: the percentage of blank or unknown data, not zero or missing; or the proportion of filling in all data elements in the facility report form. ALL DATA SHOULD BE IN A DISAGGREGATED FORM TO PERMIT FURTHER ANALYSIS.	
	5	Timeliness	Timeliness: the percentage of reports from the sublocals, abattoirs and facilities that were received on time.	
	6	Accuracy	Accuracy: the percentage of data variables on the collection form without an error: EXAMPLES - missing data, incorrect coding, transposed error, incorrect units, or incorrect or inconsistent format.	
	7	Action	What actions are taken to correct late, absent or incomplete reporting from the reporting sites?	
	8	Data Storage and Security	How is the data stored and maintained and backed up?	
Data Analysis	9	Data Tools	Describe the tools used for analysing data from the farm or village to the local level.	
	10	Software	Describe the computer software used.	
	11	Quantitative Data	Calculate percentage (%).	
	12	Qualitative Data	Calculate percentage (%) and create groupings/categories.	
	13	Animal-Place-Time	Analyse disaggregated data according to animal, place and time.	
	14	Graphic Display	Tables, graphs, maps, flow diagrams, SWOT table, Fishbone Diagram, etc.	

Date: **Audit**		**Source/Facility** **Attribute**	**Contact Person:** **Measure**	**Output**
Data Use	15	Data Sharing	Describe the frequency and kind of reports used to share data from one level to the next: 1) the farm or village to the local level; 2) the local to the subnational level; 3) from the subnational to the national level. Describe, or **attach if possible.**	
	16	Data for Action	Calculate how many surveillance data reports led to conducting field investigations, initiated further training at the sublocal level, were shared with other agencies such as public health and wildlife health.	
	17	Data for Planning	Describe the frequency and how analysed data contributed to any planning reports or intervention developed by the local, subnational, or national offices related to animal health, public health, or wildlife health. Describe, or **attach if possible.**	
	18	Data for Research	Describe the frequency and how analysed data contributed to any research reports developed by the local, subnational, or national offices related to animal health, public health, or wildlife health. Describe, or **attach if possible.**	
	19	Feedback Mechanism	Describe the data feedback mechanism among sublocal/local, local, subnational and national levels for field and laboratory.	
	20	Awareness of Data Use by Stakeholders	Describe stakeholder awareness of how the data is used and what incentives are required to improve reporting.	
Laboratory Data	21	Laboratory Information	Name and location of veterinary laboratory providing diagnostic support.	
	22	Laboratory Submissions	Number of samples submitted, type and source to the laboratory during the past week.	
	23	Submission Time	Provide the minimum and maximum time (days and hours) required to collect and deliver samples to the laboratory during the past week.	
	24	Reporting Time	Provide the minimum and maximum time (days and hours) required to receive feedback about laboratory about test results.	
	25	Two-Way Linking of Field and Laboratory Data	Describe if and how laboratory and field data are combined for analysis.	

Form 7

Frontline ISAVET Data Quality Audit Scorecard

Trainee's name_____
Local/country_____
Date_____

Please use this scorecard to ensure the quality of this field product and provide constructive feedback. You may choose to share the scorecard in advance with your trainees to use it as a guide for completing their field activity.

Please check the appropriate response:	Yes	Partial	No
Facility information includes:			
• trainee name, facility name			
• name and title of persons met and interviewed for the audits			
At least some questions are answered for each of the five activities below:			
1. Data collection (8 questions):			
• Priority diseases are identified with case definitions.			
• Includes list of suspected and confirmed cases of immediately reportable diseases.			
• Trainee provides his or her own perspective demonstrating expansive thought and awareness of the situation.			
2. Data analysis (6 questions)			
• Trainee provides his or her own perspective demonstrating expansive thought and awareness of the situation.			
3. Data use (6 questions)			
• Trainee provides his or her own perspective demonstrating expansive thought and awareness of the situation.			
4. Laboratory data (5 questions)			
• Trainee provides his or her own perspective demonstrating expansive thought and awareness of the situation.			
5. Action is taken based on findings of surveillance.			

ADDITIONAL FEEDBACK:

Form 8

Frontline ISAVET Written Report Evaluation Form

Name of Frontline ISAVET trainee_____
Country_____
Name of technical reviewer_____
Date_____

Recommendation (pass/amendment required/fail):

Written Report (MS Word©)	Yes/Partial/ No/Not Applicable	Comments
A. TITLE PAGE		
1. The title clearly and concisely describes the subject and scope of the field study.		
2. The title page includes the name of the trainee, country and date of submission.		
B. ABSTRACT		
3. Maximum of 300 words.		
4. Brief summary background, key issue of importance, objective, methods, results, conclusions and recommendations.		
C. BACKGROUND		
5. Describes the biological nature and significance of the disease agent.		
6. Describes the context with respect to the location, time period, animal population and burden of disease and cites relevant references.		
7. Includes any related surveillance conducted and outbreaks that have occurred.		
D. KEY ISSUE OF IMPORTANCE		
8. Describes important knowledge gaps and clearly justifies the need for the study.		
E. OBJECTIVE		
9. Is an original piece of work.		
10. Provides ideally one objective or a maximum of two clearly stated study objectives related to the background and issue of importance.		
F. METHODS		
11. All methods used are directly related to the objective(s) of the study.		
12. Describes the study design, data source(s), study time frame and study location.		
13. Defines the study population and the unit of interest (measure).		
14. Describes the case definition(s) used.		
15. Describes any required sample size calculations and sampling methods.		
16. Describes the type of data source (primary and secondary) material and method of collection.		
17. Describes laboratory test methods used.		
18. Describes in detail the main variables, the method of data entry and how data quality is assessed.		
19. Provides descriptive statistics calculated including measures of central tendency, measures of disease occurrence, and disease impact.		
20. Describes the method of data analysis in terms of animal-place-time components.		

Written Report (MS Word©)	Yes/Partial/ No/Not Applicable	Comments
G. RESULTS		
21. The main results of the study are directly related to the objective(s) of the study.		
22. Specifies whether primary or secondary data and field or laboratory data is used.		
23. Uses appropriate data display method for each descriptive analysis of results.		
24. General findings are concisely summarized using text, when appropriate.		
25. Results presented in text are not repeated in tables, graphic displays and maps.		
26. Tables present important results, are properly labelled and well organized.		
27. Appropriate clearly labelled graphs are used that to display results.		
H. CONCLUSIONS		
28. Each conclusion is directly related to the study results.		
29. Challenges and limitations of the study are stated.		
30. Interpretation and significance of the main findings of the study are provided.		
31. The main findings are directly related to the results of the study which may also be compared to findings from other studies.		
I. RECOMMENDATIONS		
32. Are all directly related to the objectives, methods, and results of the study.		
33. Are based on SMART principles: specific, measurable, achievable, realistic and time-bound.		
34. Address deficiencies in data quality and data management, including the following: data collection, data entry, data storage, data analysis, data sharing (feedback) and reporting.		
35. Improve the delivery of government services under a One Health approach including: animal (including wildlife) and zoonotic disease surveillance, surveys, field investigation, disease prevention, and control and emergency preparedness (value chain mapping) and response.		
J. ACKNOWLEDGEMENTS		
36. Includes contributors to the study design, implementation and reporting.		
K. REFERENCES		
37. Preferably Vancouver style:[1] https://www.nih.gov/bsd/uniform_requirements.html or equivalent.		

[1] Guidelines for OSIR Publications, 2016

Form 9

Frontline ISAVET Oral Report Evaluation Form

Name of Frontline ISAVET trainee_____
Country_____
Name of technical reviewer_____
Date_____

Recommendation (pass/amendment required/fail):

Oral Report (MS PowerPoint©)	Comments
A. TITLE SLIDE (1 SLIDE)	
1. Does the title clearly and concisely describe the subject and scope of the Field Study?	
B. BACKGROUND (2 SLIDES)	
2. How does the biological nature and significance of the disease agent affect the epidemiology of the disease?	
3. What is the epidemiological importance of the disease agent with respect to the location, time period, animal population and burden of disease in your country?	
C. KEY ISSUE OF IMPORTANCE (1 SLIDE)	
4. Why is this study important?	
D. OBJECTIVE(S) (1 SLIDE)	
5. Is this an original piece of work which has not been conducted before and is relevant in your country?	
6. How are the study objective(s) related to the main issue of importance?	
E. METHODS (4 SLIDES)	
7. Is the study design, including the data source(s), study time frame and study location linked to your objective?	
8. What is the study population and the unit of interest?	
9. What case definition(s) did you use in the study?	
10. What sampling method did you use?	
11. What is the source of data (primary and secondary) and how was it collected?	
12. What laboratory test methods were used?	
13. How did you assess data quality for your study?	
14. What are the most important measures of disease occurrence and disease impact used in your study? Briefly explain.	
15. How did you conduct data analysis in terms of animal-place-time components?	
F. RESULTS (5 SLIDES)	
16. How are the results of the study directly related to the objective(s) of the study?	
17. Which results best address the objective of your study?	
18. Explain why you chose a certain data display method to describe your result?	
19. How could you improve the way you displayed your results?	

Oral Report (MS PowerPoint©)	Comments
G. CONCLUSIONS (3 SLIDES)	
20. Are all directly related to the study results?	
21. What were the main challenges of conducting your study?	
22. What were the main limitations of conducting your study?	
23. What new findings did the study find that were not previously understood?	
24. Will it be possible to publish the conclusions and recommendations of your study?	
H. RECOMMENDATIONS (2 SLIDES)	
25. Which recommendations come directly from the results of the study?	
26. Are your recommendations specific, measurable, achievable, realistic and time-bound? Briefly explain.	
27. Do your recommendations point out deficiencies in data quality and data management?	
28. How can your recommendations be used to improve the delivery of government services under a One Health approach?	
I. ACKNOWLEDGEMENTS (1 SLIDE)	
29. Are all contributors acknowledged?	
J. POWERPOINT AND ORAL PRESENTATION SKILLS	
30. Was the oral presentation clear and audible?	
31. Was text used sparingly with font size clearly visible in all slides?	
32. Were graphs, tables and charts easy to read?	
33. Was the presentation delivered within the 20 minutes allotted?	
34. Did the presenter demonstrate good command of the subject during the presentation and in answering questions afterwards?	
K. ORAL PRESENTATION OVERALL QUALITY	
35. The format of the oral presentation is of acceptable quality to graduate from the Frontline ISAVET Programme.	
36. The content of the oral presentation is of acceptable quality to graduate from the Frontline ISAVET Programme.	

Annex B

Frontline ISAVET core domains, competencies and skills

Domain	Competency	Skills
Epidemiological Surveillance	Communicate the purpose and characteristics of animal health and public health surveillance systems.	1. Describe the role of animal health and public health surveillance systems under a One Health* approach. 2. Identify the key elements of the animal health and public health surveillance cycle. 3. Describe the key characteristics of an animal health and public health surveillance system – purpose, target population and unit of interest, case definitions, list of diseases included, active and passive data-collection methods, data quality and flow, timeliness requirements, laboratory and epidemiological components, etc.
Epidemiological Surveillance	Identify and report cases and clusters of diseases or clinical syndromes of animal health and public health importance to the community.	1. List the diseases and conditions reportable in your jurisdiction. 2. Record data systematically and create a line list. 3. Report cases and clustering of disease and clinical syndromes of animal health and public health interest to the appropriate governmental authorities. 4. Describe reasons for underreporting.
Epidemiological Surveillance	Monitor, assess, report and provide feedback about the quality of local animal health and public health surveillance data.	1. Monitor the timeliness and completeness of reporting from different reporting sources. 2. Conduct a data quality audits to assess the quality of surveillance data. 3. Provide feedback to improve to data contributors concerning timeliness, completeness and quality of surveillance data.
Epidemiological Surveillance	Summarize, analyse and interpret surveillance data and notify stakeholders regularly.	1. Describe the importance of timely, complete and accurate data for decision-making. 2. Summarize surveillance data using descriptive epidemiology (animal or person host, time and place characteristics including clinical signs). 3. Calculate rates and descriptive statistics including measures of central tendency, dispersion, and measures of disease occurrence. 4. Summarize surveillance results using appropriate display methods such as tables, graphs and maps. 5. Describe thresholds for action and describe trends including a sudden increase in cases or health events. 6. Notify authorities immediately of suspected priority diseases including incidence that exceed expected threshold levels.
Epidemiological Surveillance	Produce surveillance summary reports that describe patterns of disease occurrence and provide information that is useful for decision-making.	1. Design a surveillance summary report that improves situational awareness and includes descriptive epidemiology, descriptive statistics and disease impact interpretations for reportable events, with recommendations for action. 2. Apply critical thinking on sharing and dissemination of health information. 3. Use surveillance data and evidence to propose solutions for improving prevention and control.
Field Investigation and Response	Contribute to the detection and diagnosis of cases of diseases of animal health and public health importance.	1. Establish communication with the laboratory to ensure appropriate samples are collected and managed, and test results are interpreted using best practices (supporting two-way and four-way linking). 2. Manage specimens – collect, label, package and transport samples for diagnosis using accepted methods. 3. Use appropriate diagnostic methods for case detection and diagnosis.
Field Investigation and Response	Apply proper biosafety and biosecurity methods.	1. Use appropriate personal protective equipment applying situational awareness skills when conducting field investigations and handling infectious material. 2. Apply accepted standards of biosafety and biosecurity to dispose of infectious materials.
Field Investigation and Response	Conduct outbreak and health event investigations.	1. Identify and follow the objectives of the field investigation. 2. Apply the steps of a systematic field investigation in response to a report or an event. 3. Participate as a team member of a multidisciplinary investigation of a reported or suspected outbreak. 4. Collect individual case or premises data, create a line list and draw an epidemic curve. 5. Conduct follow-up investigations of reported or suspected cases and events of animal health and public health interest. 6. Recommend and implement basic outbreak prevention and control measures continuously during all phases of field investigation.

*Refer to competencies and skills noted for surveillance, field outbreak investigation, emergency preparedness and response, and risk communication.

Domain	Competency	Skills
Epidemiological Methods	Cross-cutting methods for surveillance and field investigation domains.	1. Refer to skills listed under surveillance and field investigation domains.
Communication	Communicate effectively with technical and non-technical audiences.	1. Promote good rapport and open lines of two-way communication with stakeholders in your jurisdiction. 2. Convey disease transmission risks to diverse audiences. 3. Prepare and deliver a written report and oral presentation to technical and non-technical audiences.
Preparedness	Apply regulations and standard operating procedures in the context of preparedness.	1. Describe the emergency management cycle. 2. Demonstrate knowledge about regulations and standard operating procedures relevant to one's office and position. 3. Map local value chains with community stakeholders for each animal production system during peace time. 4. Contribute to post-incident assessments.
Ethics and Professionalism	Act in accordance with accepted standards of ethics and professionalism.	1. Interact with colleagues, stakeholders, the general public and government officials with respect and professionalism. 2. Be an effective team member, adopting the role needed to contribute constructively to the accomplishments of tasks by the group. 3. Follow ethical and welfare principles in both human and animal interactions. 4. Adhere to regulations, guidelines, and procedures for ethical principles regarding data collection, conflicts of interest and confidentiality.
Disease Prevention and Control	Contribute to disease prevention and control activities – (e.g.) vaccination campaigns.	1. Explain and apply the principles that are utilized in animal disease prevention and control programmes including zoonoses. 2. Explain existing disease prevention and control programmes in the country.
Disease Prevention and Control	Communicate the purpose of routine disease control and prevention and characteristics of a functional control programme.	1. Explain the roles and responsibilities of frontline personnel in health promotion as well as disease prevention and control activities.
One Health*		

*Refer to competencies and skills noted for surveillance, field outbreak investigation, emergency preparedness and response, and risk communication.

Annex C

Frontline ISAVET standard operating procedures (SOP) for epidemiological surveys and KAP studies

Document #	Title: **Standard Operating Procedures for Epidemiological Surveys and KAP Studies**	Print date: **2 November 2018**
Revision # **1**	Prepared by: **David Castellan**	Date prepared: **2 November 2018**
Effective date: **6 November 2018**	Reviewed by: **Caryl Lockhart**	Date prepared: **6 November 2018**
Standard:	Approved by:	Date approved:

Policy: All Frontline ISAVET field teams shall plan, prepare and implement field data management activities in accordance with the concept of surveys and surveillance covered in the Frontline ISAVET. This SOP is intended to guide surveys and knowledge, attitudes and practices (KAP) studies and should be adapted for the use of each specific country.

Purpose: To collect data and produce meaningful results, interpretation and recommendations for field veterinarians and farmers. All field personnel must take data management seriously in carrying out their field duties in order to fully document animal health and disease events.

Scope: Epidemiological Field Surveys and KAP Studies

Responsibilities: All Frontline ISAVET personnel that will access farms to collect data.

TABLE C.1
Data collection and management duties

Data Collection Duties	Data Management Duties
• Pre-test the questionnaire before you use it in the field. • Make sure you establish a respectful relationship with the farmer before using the questionnaire. • Complete the questionnaire in a maximum of 15 to 20 minutes. • Collect and properly label the required laboratory samples to match them with the questionnaire data and sample collection forms. • Confirm any information which is incomplete or missing. • Express your sincere thanks to the farmer for his or her time and contributions.	• Collect data by providing all information with clear, legible writing. • Copy the original data to a newly created spreadsheet file that includes a spreadsheet with 1) data dictionary and 2) variable column headings. • Transfer your data into MS Excel very carefully to avoid errors and omissions before it is merged with information from other data collectors. • Merge and combine all data into a master spreadsheet that should be protected as the original data source. • Manage the data for taking action: 1) Assess data quality; 2) Descriptive statistics; 3) Measures of disease impact; 4) Display data – tables, graphs, maps; 5) Create a statement of the meaning of each data display; 6) Interpret your findings; 7) State the limitations of the data; 8) State your conclusions; 9) State your recommendations for action; and 10) Report your findings (PowerPoint and Executive Summary and Abstract).

DEFINITIONS:

1. Survey – Collection of data from a defined population in a limited time period.
2. Knowledge, Attitudes and Practices (KAP) Study – Is a type of survey study that measures the knowledge, attitudes and practices of key stakeholders in relation to a particular animal-specific or zoonotic disease issue.

RESOURCES:

- laptop computers
- MS Word, Excel and PowerPoint
- internet access
- field mentors
- transportation
- accommodation and food
- meeting room for laboratory analysis and data management group work

PROCEDURES:

General provision

The SOP for epidemiology surveys and KAP studies are intended to improve our understanding of animal-specific disease, often done using a cross-sectional design such as seroprevalence studies.

PROCESS:

Frontline ISAVET trainees will follow the following process to manage data related to field surveys and KAP studies:

1. Data Collection
   a. Pre-test the questionnaire with at least five to ten people before you use it in the field, making any adjustments or corrections when inconsistent results are obtained due to differing country conditions and interpretations of the questions. All questionnaires are coded with a number for entry to the computer.
   b. Take time to establish a respectful relationship with the farmer before using the questionnaire. Ask questions and express an interest in their animals, production levels and challenges faced. Then state the purpose of the questionnaire and stress that all responses are coded and confidential.
   c. Complete the questionnaire in a maximum of 15 to 20 minutes before "survey fatigue" sets in. Confirm any information which is incomplete or missing before leaving the farm.
   d. Collect and properly label any required laboratory samples to match them with the questionnaire data and the sample data-collection form. Laboratory results, clinical signs, and pathological results are outcome variable that must be collated and included with predictor variables collected using the questionnaire.
   e. Express your sincere thanks to the farmer for his or her time and contributions and give reassurance that all information will be confidential and that combined results of all farms will only be shared with all participating farmers.
2. Data Management
   a. **Collect data** by providing all information with clear, legible writing and match the questionnaire numbers with the laboratory, clinical and pathological results.
   b. **Create a line listing** by copying the original data to a newly created spreadsheet file that includes a spreadsheet with 1) data dictionary and 2) variable column headings.
   c. **Take your time to transfer your line list data into MS Excel very carefully** to avoid errors and omissions before it is merged with information from other data collectors.
   d. **Merge and combine all data** into a master spreadsheet that should be protected as the original data source ONLY AFTER you can do a data quality check on your individual data. Once the data is combined, **perform a second data quality** check to confirm all data is entered properly BEFORE analysis is done.
   e. **Manage the data for taking action:**
      1) **Assess data quality** for completeness, copy errors, omissions, duplications and transpositions.
      2) **Calculate descriptive statistics** including mean, median, mode, minimum, maximum and range.
      3) **Calculate measures of disease impact** including morbidity, mortality, proportions, ratios, incidence, prevalence, crude as well as specific rates for strata (disaggregated data).
      4) **Display data** using the appropriate tables, graphs, maps for quantitative and qualitative data.

5) **Create a statement of the meaning** of each data display.
6) **Review the statements and interpret** your findings.
7) **State the limitations** of the data because there are always limitations.
8) **State your conclusions** based on the data and its limitations.
9) **State your recommendations** for action. Use SMART principles from the data you collected.
10) **Report your findings** (MS PowerPoint and Executive Summary (nontechnical) and Abstract (technical)).

Effectiveness Criteria: Thoroughness and Completeness

REFERENCES:
A. Frontline ISAVET curriculum

Records/Forms

Form #	Record/Form/Activity Name	Satisfies
Required by Standard		
FAO Technical Working Group Curriculum Development	Frontline ISAVET curriculum	Epidemiological Surveys and KAP Studies
Other Forms/Records		
XXXXX	Record	
XXXXX	Record	
XXXXX	Record	

Revision History

Revision	Date	Description of Changes	Requested By
1.0	3 November 2018	Adapted for Frontline ISAVET Uganda Field Training	Frontline ISAVET

Annex D

Frontline ISAVET monitoring and evaluation toolkit for mentors

ABOUT THIS TOOLKIT

This toolkit is provided as a source of guidance and information for conducting monitoring and evaluation (M&E) activities as part of their responsibilities as Frontline ISAVET trainers. The objectives of this toolkit are:

- to provide an overview of the Frontline ISAVET M&E approach;
- to identify the specific M&E indicators which are relevant to the mentoring component of the ISAVET programme;
- to familiarize mentors with the M&E tools which measure these indicators; and
- to explain how and when each M&E tool is administered.

TARGET AUDIENCE

This toolkit is intended for Frontline ISAVET mentors who will be mentoring trainees during the three-month in-service field training.

Section 1: The Frontline ISAVET M&E approach

MONITORING AND EVALUATION OVERVIEW

Continuous monitoring and evaluation (M&E) are a cornerstone of the Frontline ISAVET programme. The systematic collection of data pertaining to programme delivery, outputs and outcomes enables stakeholders to measure and assess whether Frontline ISAVET is meeting its goals, to measure trainee progress over time and to identify areas for improvement. This section provides an overview of the M&E approach so that Frontline ISAVET mentors understand how they make a critical contribution to assessing training outcomes, mentor performance, and the fitness of the training to meet their individual and country needs defined through a country-level Needs and Readiness Assessment.

The Frontline ISAVET Logic Model, found in Annex D, illustrates how programme inputs, such as funding, data from needs and readiness assessments, and contributions from personnel (trainers, mentors, regional staff, etc.) are used to conduct the activities of the programme, such as developing the curriculum, training mentors and delivering the Frontline ISAVET programme to trainees. These activities are then expected to produce specific outputs, including curriculum materials and training tools, qualified trainers and mentors, and cohorts of trainees. Finally, these outputs should eventually translate into short-, mid- and long-term outcomes which have a positive effect on the practice of veterinary field epidemiology in participating countries. It is the role of M&E to determine whether or not the Programme is successful in achieving these outputs and outcomes, and to what extent.

To measure programme success, roughly 30 indicators which pertain to the quality and performance of trainees, trainers, mentors, instructors, course delivery and general programme outcomes were developed. Then, M&E tools such as surveys, assessments, evaluations and observations were created to measure each of these indicators, using a variety of quantitative and qualitative methods. To reduce the number of tools required, several indicators are measured using a single tool whenever possible. For instance, the trainee pre-test measures trainees' veterinary epidemiology skills, their awareness of One Health concepts and their attitudes toward implementing what they have learned from the programme. In addition, some indicators are measured multiple times to capture any change which may occur as a result of programme participation, or to triangulate data which rely on subjective, self-reported measures.

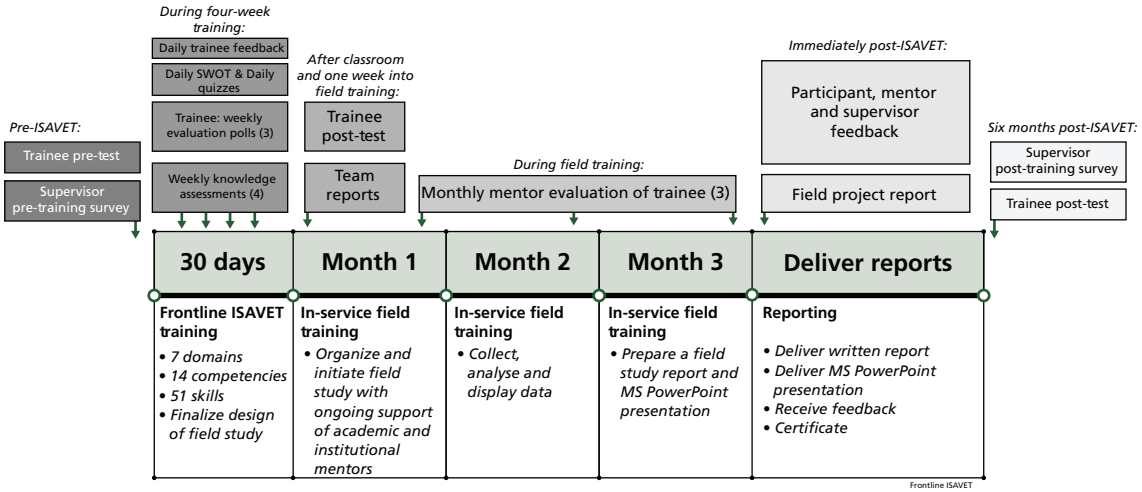
While the overall Frontline ISAVET M&E approach includes a large number of indicators and corresponding data-collection tools and activities, only a subset of these data-collection activities is relevant to the Frontline ISAVET mentoring component. The M&E tools relevant to mentors, along with the indicators measured by each, are located in Table D.1. Note that mentors are not responsible for these data-collection activities, but they are included in the table to provide a comprehensive overview of the M&E strategy. The specific tools which are relevant to mentors are covered in the sections that follow.

A diagram which illustrates the timeline for Frontline ISAVET M&E activities timeline is presented in Figure D.1.

TABLE D.1
Frontline ISAVET data-collection tools and corresponding indicators

Data Collection Tool/Activity	**Indicators Measured**
Mentor Evaluation Form	**CF2: Mentor evaluation (by trainee)**
Mentee Evaluation Form	**T5: Trainee attitude**
	T6: Trainee confidence and commitment
Trainee six-month post-test	T1: Trainee knowledge and skills application
	P10: Knowledge dissemination
	CF2: Mentor evaluation (by trainee)
Programme monitoring	O1: Core model curriculum and materials
	O2: Faculty and mentor resources
	O3: # Qualified trainers and mentors
	O4: # Graduates from workshops
	O5: # Scientific publications
	O6: # Conference presentations

FIGURE D.1
Frontline ISAVET monitoring and evaluation timeline



Section 2: Frontline ISAVET M&E tools for mentors

Data collection activities which pertain to the Frontline ISAVET mentoring component are described in the following sections. Each tool is described, along with its purpose, what it is intended to measure, when the tool is used, and how the tool is administered. Finally, a copy of the tool is provided.

MENTEE EVALUATION FORM

What is it?

The Mentee Evaluation Form measures the trainee's attitudes, confidence and commitment to Frontline ISAVET Principles, and is also used to allow mentors the opportunity to provide feedback on their relationship with the mentee and the mentee's performance.

Who completes it?

Mentors complete a separate form for each mentee they are mentoring.

When is it administered?

The Mentee Evaluation Form is administered three times, on a monthly basis, beginning one month after the three-month field training has begun, and ending after the field training is complete.

How is it administered?

This tool is administered by ISAVET staff. Mentors will receive email communication on a monthly basis prompting them to complete the form for their mentee(s).

How long does it take?

The Mentee Evaluation Form should take about 10 minutes to complete for each mentee.

Your name _____ Mentee name _____ Date _____

FRONTLINE IN-SERVICE APPLIED VETERINARY EPIDEMIOLOGY TRAINING PROGRAMME (ISAVET)

MONTHLY MENTEE EVALUATION FORM

Dear mentor:

We are inviting you to take part in this short evaluation form so that we can gain understanding of the performance of the mentee under your mentorship.

If you are mentoring more than one individual, please complete a separate questionnaire for each mentee.

Your responses to this questionnaire will be kept strictly confidential and will not be shared with the trainee, other mentors, or any other individuals not directly involved in delivering this training programme. If you have any questions, please speak with the Instructor or other programme staff.

Your feedback is greatly appreciated.

Sincerely,
Frontline ISAVET staff

Section 1: Mentee evaluation

Instructions: For each of the following statements, please indicate your level of agreement pertaining to your mentee.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
The mentee is accessible and communicates in a timely manner.	☐	☐	☐	☐	☐
The mentee demonstrates a professional and courteous attitude.	☐	☐	☐	☐	☐
The mentee has been accepting of my advice and encouragement.	☐	☐	☐	☐	☐
To date, the mentee has made adequate progress in completing their field project(s).	☐	☐	☐	☐	☐
To date, the mentee submits work on time and has made adequate progress in completing their field work presentation(s).	☐	☐	☐	☐	☐
Overall, my mentee has met my expectations this month.	☐	☐	☐	☐	☐

Please provide any additional comments or feedback you have pertaining to your mentee's performance over the past month.

MENTOR EVALUATION FORM

What is it?

The Mentor Evaluation Form is used to allow mentees the opportunity to provide feedback on their relationship with the mentor and the quality of technical assistance they are receiving.

Who completes it?

Every trainee in a Frontline ISAVET course who is working with a mentor during the three-month field training.

When is it administered?

The Mentor Evaluation Form is administered three times, on a monthly basis, beginning one month after the three-month field training has begun, and ending after the field training is complete.

How is it administered?

This tool is administered by ISAVET staff. Mentees will receive email communication on a monthly basis prompting them to complete the form for their mentor(s).

How long does it take?

The Mentor Evaluation Form should take about 10 minutes to complete.

Your name _____ Mentor name _____

FRONTLINE IN-SERVICE APPLIED VETERINARY EPIDEMIOLOGY TRAINING PROGRAMME (ISAVET)

MONTHLY MENTOR EVALUATION FORM

Dear trainee:

We are inviting you to take part in this short evaluation form so that we can gain understanding of the technical assistance you are receiving from your mentor.

Your responses to this questionnaire will be kept strictly confidential and will not be shared with your mentor, your supervisor, other trainees, or any other individuals not directly involved in delivering this training programme.

If you have any questions, please speak with the instructor or other programme staff.

Your feedback is greatly appreciated.

Sincerely,
Frontline ISAVET staff

Section 1: Mentor evaluation

Instructions: For each of the following statements, please indicate your level of agreement pertaining to your mentee.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I started work this month with a clear understanding my mentor's role.	☐	☐	☐	☐	☐
This month, my mentor was adequately available to me.	☐	☐	☐	☐	☐
This month, my mentor provided valuable technical assistance.	☐	☐	☐	☐	☐
This month, my mentor provided timely technical assistance.	☐	☐	☐	☐	☐
This month, the frequency of mentor check-ins was adequate for my needs.	☐	☐	☐	☐	☐

Please provide any additional comments or feedback you have pertaining to the assistance you have received from your mentor over the past month:

TRAINEE SIX-MONTH POST-TEST

What is it?

The trainee six-month post-test is used to assess the mid-term outcomes and impact of the Frontline ISAVET course on trainees, their workplace, and the practice of field epidemiology in their districts. It also allows trainees a final opportunity to evaluate their mentor, as well as to reflect on their participation in the Frontline ISAVET programme overall.

Who completes it?

Every trainee in a Frontline ISAVET course.

When is it administered?

The trainee six-month post-test is administered six months after the completion of the 30-day in-person workshop.

How is it administered?

This tool is administered by ISAVET staff. Trainees will receive email communication prompting them to complete the survey.

How long does it take?

This survey should take 30 to 45 minutes to complete.

Your name _____ Country _____

IN-SERVICE APPLIED VETERINARY EPIDEMIOLOGY TRAINING PROGRAMME (ISAVET)

TRAINEE SIX-MONTH POST-TEST

Dear trainee:

We are inviting you to take part in this questionnaire so that we can gain understanding of the ISAVET programme's effect on the application of your knowledge and skills six months after participating in the Frontline ISAVET programme.

Your responses to this questionnaire will be kept **strictly confidential** and will **not** be shared with your employer, other trainees, or any other individuals not directly involved in delivering this training programme.

If you have any questions, please speak with an ISAVET instructor or other programme staff.

Your feedback is greatly appreciated.

Sincerely,
Frontline ISAVET staff

Section 1: Veterinary epidemiology skills application

Instructions: The following section contains a list of skills which pertain to veterinary field epidemiology. Please indicate the frequency which you have used each of these skills in your job over the last six months.

		Every Day	Very Often	Sometimes	Rarely	Never
1	Review the quality of a data set systematcially.	☐	☐	☐	☐	☐
2	Provide feedback to improve data quality.	☐	☐	☐	☐	☐
3	Prepare and follow a plan to capture and describe data by animal-place-time.	☐	☐	☐	☐	☐
4	Calculate measures of central tendency (mean, median and mode).	☐	☐	☐	☐	☐
5	Calculate measures of disease occurrence and impact (rates, ratios and proportion).	☐	☐	☐	☐	☐
6	Organize and display data by animal-place-time.	☐	☐	☐	☐	☐
7	Display the findings of an investigation using tables, graphs and maps.	☐	☐	☐	☐	☐
8	Apply methods used for interpreting data to improve situational awareness.	☐	☐	☐	☐	☐
9	Produce a summary report with recommendations for action.	☐	☐	☐	☐	☐
10	Complete a reporting form used for animal disease surveillance.	☐	☐	☐	☐	☐
11	Coordinate with the laboratory to collect, manage and interpret test results.	☐	☐	☐	☐	☐
12	Use appropriate diagnostic methods for case detection and verify the diagnosis.	☐	☐	☐	☐	☐
13	Collect, label, package and transport samples for laboratory diagnosis.	☐	☐	☐	☐	☐
14	Apply the steps of an outbreak investigation.	☐	☐	☐	☐	☐
15	Find cases and complete a questionnaire systematically.	☐	☐	☐	☐	☐
16	Create a line list of all potential cases.	☐	☐	☐	☐	☐
17	Create a standard outbreak histogram and interpret the results.	☐	☐	☐	☐	☐
18	Apply MS PowerPoint formatting principles for clear presentations.	☐	☐	☐	☐	☐
19	Identify important stakeholders in your district.	☐	☐	☐	☐	☐
20	Prepare a written report and oral presentation to technical and nontechnical audiences.	☐	☐	☐	☐	☐
21	Apply the seven-step approach to ethical decision-making.	☐	☐	☐	☐	☐
22	Adopt the role assigned to you as a team member.	☐	☐	☐	☐	☐
23	Map value chains with stakeholders during peace time.	☐	☐	☐	☐	☐
24	Contribute to post-incident assessments by validating and providing field level data.	☐	☐	☐	☐	☐

Of the skills listed previously, which do you find most useful in your daily work? Please insert the skill number located to the left of the skill description (e.g. 1 to 24) in the slot provided in the table below. Then, for each skill, describe how you have applied the skill in the last six months. Please be as specific and detailed as possible.

Skill Ranking	How have you applied this skill in the last six months?
First most important skill (provide number): # _____	
Second most important skill (provide number): # _____	
Third most important skill (provide number): # _____	
Fourth most important skill (provide number): # _____	
Fifth most important skill (provide number): # _____	

What would enable you to better apply the knowledge and skills you learned during the training?

Since returning to your regular occupation, approximately how many people have you trained on veterinary field epidemiology knowledge and skills? "Training" can be formal (like a presentation or meeting) or informal (in the course of your daily work, in conversations with colleagues, etc.).

☐	☐	☐	☐	☐	☐
0	1–5	6–10	11–15	16–20	21 or more

If you have trained others, who did you train? Check all that apply:

- ☐ Colleagues
- ☐ Supervisor(s)/other superiors
- ☐ Subordinates
- ☐ Other (please indicate): _____

If you have trained others, which topics or skills were included? Be specific.

If you have trained others, please describe how you conducted the training (e.g. workshops, meetings, informal methods, etc.). Be specific:

Section 2: Frontline ISAVET mentor evaluation

For each of the following statements, please indicate your level of agreement pertaining to your mentor.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
My mentor has helped me identify persons who can collaborate or assist me in my field project.	☐	☐	☐	☐	☐
Overall, the frequency of mentor check-ins, discussions and meetings was adequate for my needs.	☐	☐	☐	☐	☐
If I reached out to my mentor, the mentor responded to me in a timely matter.	☐	☐	☐	☐	☐
Overall, my mentor provided me with constructive feedback and useful technical assistance that I can apply to my field project.	☐	☐	☐	☐	☐
Overall, my mentor has met my expectations.	☐	☐	☐	☐	☐

Please provide any additional comments or feedback you have pertaining to the assistance you have received from your mentor over the past six months.

Section 3: Frontline ISAVET evaluation

For each of the following statements, please indicate your level of agreement pertaining to the Frontline ISAVET programme.

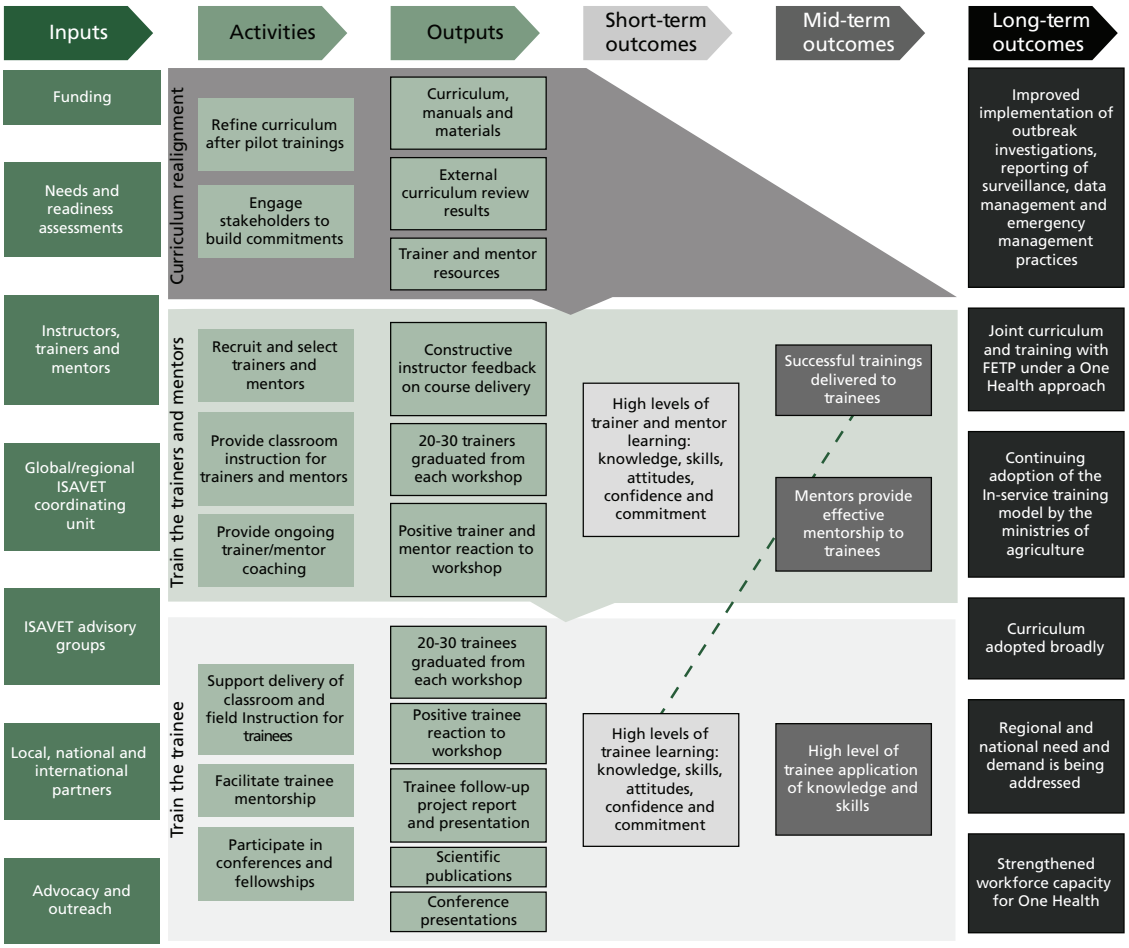
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Participating in Frontline ISAVET has contributed to improving my work performance.	☐	☐	☐	☐	☐
Frontline ISAVET has contributed to improving the overall surveillance in my district.	☐	☐	☐	☐	☐

Given your participation in the Frontline ISAVET course and experience since the training:

What should have been done differently during the training?

What aspects of the programme should be maintained for future training?

Frontline ISAVET logic model



This manual contains key elements of the Frontline In-Service Applied Veterinary Epidemiology Training (ISAVET) Programme necessary for successful mentorship. The target of this manual is individuals who are mentoring trainees enrolled in the Frontline ISAVET at the national level. This manual, a first of its kind, is intended to serve as an FAO global resource for national capacity development of Veterinary Services to detect and respond to emerging infectious animal diseases including transboundary animal diseases and zoonotic diseases.

ISBN 978-92-5-135776-7

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CB8656EN/1/10.22