

Proposed Program Indicators and Measurement – Measured annually (by training cohort if appropriate)

Stage of Logic Model	Indicator	Target	Measurement
Input	<p>1. Ministry of Health (MOH) has ownership over the program.</p> <p>2. Plan for program sustainability.</p>	<p>MOH provides financial, technical, human, and in-kind resources.</p> <p>Program has a distinct place in organizational chart of MOH.</p> <p>Action is being taken to assure role of program and sustainability.</p>	<p>1. Describe the role of the MOH in the program.</p> <p>Consider these factors:</p> <ul style="list-style-type: none"> A. For the investigation of outbreaks, what are the MOH and program roles B. Does and if so, how does the MOH facilitate routine access and use of national surveillance data C. The number and proportion of trainees/officers supported by MOH D. The number of MOH staff assigned as program staff; indicate whether work on program full time or part time. E. Other as appropriate <p>2. Describe the position of the program within the MOH and answer the following:</p> <ul style="list-style-type: none"> • Is it in the organizational chart? • Is the program located physically within the MOH? • Is there a written plan and budget for the future sustainability and integration of the program? Describe. • Does it include career path/progression for graduates? Describe.

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Input	<p>3. Accreditations</p> <p>4. Laboratory and Epidemiology are integral partners in surveillance and outbreak/emergency investigations.</p> <p>Laboratory resources available for surveillance and outbreak investigations.</p>	<p>Graduates receive accreditation for training recognized by public health system</p> <p>Epidemiology and laboratory work collaboratively on public health activities (surveillance, outbreak investigations).</p> <p>Laboratory resources are available for surveillance and outbreak investigations</p>	<p>3. Describe type of accreditation given to trainees for completing the training.</p> <p>4. Provide examples of how lab and epi work together. -Indicate number (or frequency) of regular meetings between national level lab and epi staff. -Describe program role or participation.</p> <p>-Describe what laboratory facilities are available and used for surveillance, outbreak investigations, and planned epidemiologic investigations.</p>
Process	<p>5. Sufficient number of qualified applicants for a full training class of qualified personnel.</p>	<p>The program has a full class made up of qualified candidates.</p> <p>(Program supplies target number for class-size and program-specific qualifications.)</p> <p>Selection criteria and process written and used.</p>	<p>5. Indicate number of qualified applicants for the last program entry year. If possible, provide their key qualifications (degrees).</p> <p>-Provide and track: number of total applicants, number of qualified applicants, number selected -Provide the document outlining selection criteria and process for candidate selections.</p>

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<p>Process</p>	<p>6. Competencies required by the program for trainees.</p> <p>Competency in this document refers to what the trainee will be expected to be able to do at the completion of training. Programs should translate as appropriate.</p>	<p>Expected competencies include:</p> <ul style="list-style-type: none"> • Epidemiology (including Outbreak Investigation) • Biostatistics • Surveillance • Communication • Computing • Management <p>Recommend: Epidemiology of Communicable and Non-communicable Diseases, Laboratory, Prevention Effectiveness, Ethics, Professionalism.</p> <p>Expected competencies have documented learning objectives. All expected competencies have training materials, exercises, readings, and field activities to support learning.</p> <p>Competency-based curriculum developed using appropriate instructional method.</p> <p>Method to assess knowledge acquisition.</p> <p>All competencies have documented expected core learning activities and system to track completion.</p>	<p>6. Provide list of competencies being trained for and expected of graduates.</p> <p>-For each competency, provide learning objectives, if available. Indicate the type of training materials available and being used.</p> <p>-Provide method of assessment conducted for trainee/officer knowledge acquisition, if available.</p> <p>-Provide list of core learning activities required to complete program (e.g. outbreaks, surveillance program analysis/evaluation, etc.)</p> <p>-Provide documentation of completion of core learning activities for each of most recent program trainees.</p> <p>-Provide the method used to measure quality for each required core learning activity.</p> <p>-Provide program graduation/completion requirements if not measured above.</p>

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Process	<p>7. Supervisory support is assessed.</p> <p>8. Training program is progressing towards sustainability</p>	<p>100% of trainees/officers complete core learning activities.</p> <p>100% of core learning activities are judged to be of adequate quality or higher.</p> <p>Method and plan for assessing supervisory support. Trainees participate in supervisor assessment.</p> <p>Major part of program taught by in-country staff.</p>	<p>7. Provide the method and plan for supervisor and mentor assessment. Indicate role (if any) that trainees have in that assessment.</p> <p>8. Provide proportion of class room work taught by in-country staff and field work mentoring/supervision done by in-country staff (as opposed to resident advisor or visiting CDC staff/consultants).</p>

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Outputs	<p>9. Graduates</p> <p>10. Investigations of acute health events</p> <p>11. Planned study conducted</p>	<p>100% of trainees/officers graduate from program(s).</p> <p>100% of trainees/officers investigate 1 or more acute health event/emergency investigation as lead or as per program target.</p> <p>100% of trainees/officers conduct a planned study or program target.</p>	<p>9. Number and proportion of total trainees who started and completed the last cohorts.</p> <p>-Indicate if graduates receive any academic degree or other certification.</p> <p>10. Provide list/description of all outbreak investigations done by each trainee for which a final report was written for last graduating cohort. By cohort year and trainee indicate # of emergency investigations done, # with reports.</p> <p>-Indicate if recommendations were made. -Indicate if presented to peers & supervisors. -Indicate if presented to appropriate public health decision makers.</p> <p>11. Provide list/description of all planned studies done by each trainee with approved protocol (do not include if counted in outbreak investigation list or other project list) for last graduating cohort.</p> <p>-By cohort year & trainee indicate # of planned investigations done, # with reviewed/approved protocol, # of reports. -Indicate if recommendations were made. -Indicate if presented to peers and supervisors. -Indicate if presented to appropriate public health decision makers.</p>

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Outputs	12. Surveillance system data analyzed and used.	100% of trainees/officers have analyzed and used surveillance data or conducted other surveillance project, e.g. Evaluation Database analysis Interpretation	12. Provide list/description of all surveillance system evaluation or surveillance data analysis projects done by each trainee for last graduating cohort. -Indications if recommendations were made. -Indicate if presented to peers and supervisors. -Indicate if presented to appropriate public health decision makers.
	13. Local/regional dissemination of trainee/officer and program work.	Method(s) exists for local/regional dissemination. E.g. Presence of Epi. Bulletin with trainee/officer or program input. National or regional meetings where trainee/officers present	13. Identify local publications and role of program. Provide list/description of all local (in country) publications (epi. bulletins, etc.) by each trainee for last graduated cohort. -Identify appropriate national/regional meetings and role of program -Provide list/description of all presentations at local (in-country) and regional conferences by each trainee for last graduated cohort.
	14. Presentations to International Scientific Conferences.	100% of trainees/officers present at scientific conference	14. Provide list/description of all abstracts submitted and accepted for international scientific conferences by each trainee for last graduated cohort.
	15. Peer Review Publications.	100% of trainees/officers prepare manuscript for submission to peer reviewed journal	-Indicate whether oral or poster 15. Provide list/description of all manuscripts submitted (indicate if accepted) to peer reviewed journal for last graduated cohort.

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Outcomes	16. Strengthened public health workforce	80% of graduates in national public health system at supervisory level (country-specific) two years after graduation (or program target) and using their training in their job.	<p>16. Provide current job title and position description for each graduate by cohort year.</p> <p>-Indicate whether supervisory level and if position would require use of program training.</p>
	17. Surveillance system improved/expanded by program/trainees.	Evidence of surveillance program improvement by program/trainees.	<p>17. Provide examples of evidence for improvement in surveillance program secondary to action/recommendations by program and/or trainees.</p> <p>-Considering all surveillance projects for a given cohort – identify public health system improvements or other health outcome that occurred as a result.</p> <p>-Provide number of new surveillance systems designed, implemented, or strengthened by trainees – may be qualitative.</p> <p>-Provide number of public health problems detected through surveillance.</p>
	18. Evidence-based public health action for acute health events improved/expanded by program/trainees.	Evidence of improvement in management and response to acute health events by program/trainees	<p>18. Provide examples of evidence for improved management of acute health events/emergency investigations.</p> <p>-Considering all emergency investigations for a given cohort – identify public health system improvements or other health outcome that occurred as a result.</p>

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Outcomes	<p>19. Evidence-based public health programs/projects started and/or due to graduates/program/trainees.</p> <p>20. Evidence-based policies/regulations created or improved due to program/trainees.</p> <p>21. National and/or regional public health professional network of graduates.</p>	<p>Evidence of public health programs/projects due to trainees.</p> <p>Evidence of policies/regulations created or improved by program/trainees.</p> <p>Functioning network of graduates</p>	<p>19. Provide evidence of improvement or development of public health programs based on work of program and/or trainees. Number of programs started and/or strengthened by program/graduates/trainees.</p> <p>-Considering all investigations for a given cohort– identify public health system improvements or other health outcome that occurred as a result.</p> <p>20. Provide evidence of creation or improvement in a public health policy or regulation based on work of program and/or trainees.</p> <p>21. Describe the current network of program graduates.</p>