For this review, distinguishing between research, individual patient care and public health practice is critical. The major distinction should reside in the *a priori* purpose for which the activity was designed. The purpose of *research* is to generate or contribute to generalizable knowledge. The purpose of *individual patient care* is to benefit the patient by providing an accurate diagnosis and treatment options, without a population perspective. The purpose of *public health practice* is to prevent disease and to improve the health of communities through activities such as surveillance, program evaluation and outbreak investigation. Further, public health practice is intended to benefit those within the participating community. Although the *a priori* intent is not to produce generalizable knowledge, it is possible that public health activities can generate new knowledge and its publication in the peer-reviewed literature is considered an important contribution. For this review we aim to include studies with an *a priori* purpose in the context of public health practice, including proof-of-concept studies.

**Examples:**
- Studies focusing on technical aspects of sequence technology
- Studies focusing on bioinformatic tools
- Studies focusing on underlying biological mechanisms, cellular processes, evolutionary aspects, etc.

**Core public health function:**
- outbreak investigation
- control-oriented surveillance
- strategy-oriented surveillance

**Producing an output that can be directly translated into actionable results for public health**

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**Is the *a priori* purpose to produce generalizable knowledge?**

- Yes
  - Research

- No
  - Is the *a priori* purpose to improve individual patient management? (no population perspective)
    - Yes
      - Individual patient care
    - No to any
      - Possibly research

**Is the *a priori* purpose to improve individual patient management? (no population perspective)**

- Yes
  - Yes
  - No
    - No
      - No to any
      - Possibly research

**Does the activity support a core public health function?**

- Yes to all
  - Yes
    - Yes to any
    - Yes

**Is the *a priori* purpose to prevent or control disease and to improve health, or to enhance a public health program or service?**

- Yes
  - Yes
    - Yes
      - Yes
      - Yes

**Is the study conducted within a real-life setting?**

- Yes
  - Yes
    - Yes
      - Yes
      - Yes

**Experimental setting, small convenience sample of historic isolates, etc.**

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**Public Health Practice:**

- Proof-of-concept

**Example:**
- Retrospective outbreak investigations

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**Public Health Practice:**

- Outbreak investigation
- Control-oriented surveillance
- Strategy-oriented surveillance