A framework to inform the selection of vaccine(s) to be assessed in Phase 2b/3 trials
Transparent and evidence based

Ideas for discussion
How can such a framework contribute to the process

- Numerous candidate vaccines under development
- Challenges of identifying and establishing trial sites
- Challenges accumulating sufficient endpoints during outbreaks
Example 1
Candidate Ebola vaccines for ring vaccination trial, Guinea

- There were 2 candidate vaccines
- The rVSV vaccine was selected for the planned trial according to a framework developed by the WHO Scientific and Technical Advisory Committee on Ebola Experimental interventions (STAC-EE).
Example 1
The experts considered a number of criteria to be used in the selection of the vaccine that would be tested first

- Acceptable safety profile,
- Induction of appropriate immune responses, including neutralizing antibodies, and
- The timely availability of sufficient supplies of vaccine doses.
Example 2
Candidate Zika vaccines

There was a proposal to consider two categories of criteria:

- Required
- Desirable
Example 2
Proposed **required** criteria:

Pre-clinical efficacy:
(i) demonstrate close to 100% protection against viraemia in primate (human or NHP) model?; (with the caveat that CHIM has not yet been fully developed). Such protection a mouse model alone would probably not be considered sufficient)

Phase 1/Phase 2 clinical studies: data including:
(i) Flavi-naïve and nonflavi-naïve subjects;
(ii) immunogenicity with greater of equal protective levels than observed in NHP challenge studies?;
(iii) acceptable safety/reactogenicity regardless of prior flavivirus exposure
Example 2

Proposed desired criteria:

General concurrence with the elements noted in the WHO TPP: number of doses, length of schedule, suitability for pregnant women, stability, duration of immunity, etc.

Evidence that product production can be scaled up to produce sufficient GMP grade doses for clinical evaluation and beyond.

Capabilities of manufacturer or future arrangements in place: Clinical trial infrastructure (efficacy trial experience, pharmacovigilance, manufacturing capacity)
Example 2

Draft Grid for prioritization

(this is an early version with hypothetical information included for illustration purposes only)

<table>
<thead>
<tr>
<th>Vaccine candidate attributes</th>
<th>Protection against viremia (CHIM&gt;NHP&gt; mice&gt;none)</th>
<th>Safety in Phase 1/2a</th>
<th>Safety in target population</th>
<th>Dose regimen (single vs multiple doses)</th>
<th>Clinical trial expertise</th>
<th>Scalability (manufacturing capability, Pharmacovigilance)</th>
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What criteria could be considered for candidate Plague vaccines?

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Candidate Plague vaccines

Proposed desired criteria:

General concurrence with the elements noted in the WHO TPP

Evidence that product production can be scaled up to produce sufficient GMP grade doses for clinical evaluation and beyond.

Capabilities of manufacturer or future arrangements in place: Clinical trial infrastructure (efficacy trial experience, pharmacovigilance, manufacturing capacity)