Moving from Research to Control Programme Implementation

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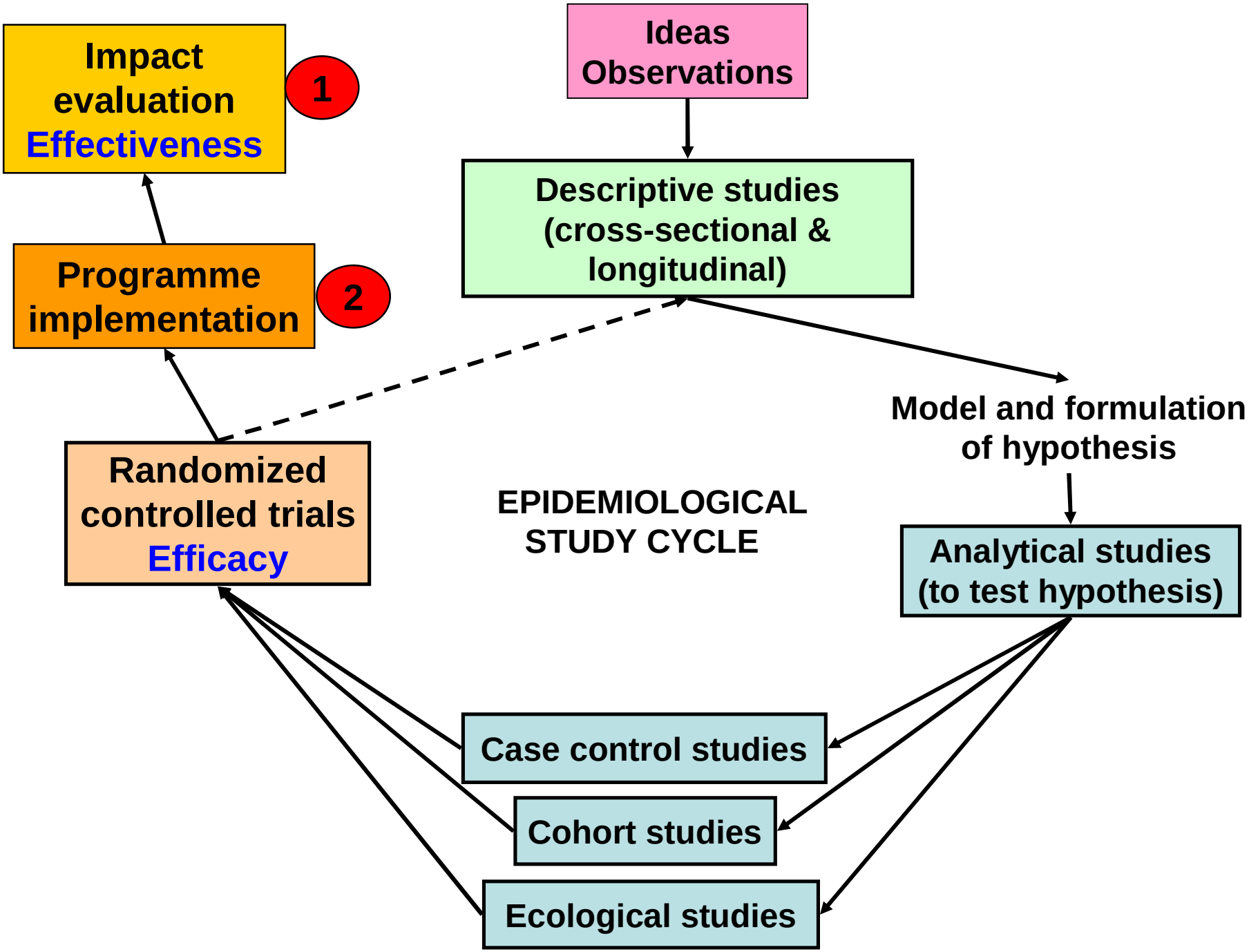

Impact evaluation Effectiveness
1
Ideas Observations
Descriptive studies (cross-sectional & longitudinal)
Programme implementation
2
Model and formulation of hypothesis
Randomized controlled trials Efficacy
EPIDEMIOLOGICAL STUDY CYCLE
Analytical studies (to test hypothesis)
Case control studies
Cohort studies
Ecological studies

Bridging the "*knowledge gap*" - the minimum!

The usual way to go from phase 3 to programme implementation:

Publishing all available results in scientific journals; important to present also negative findings!

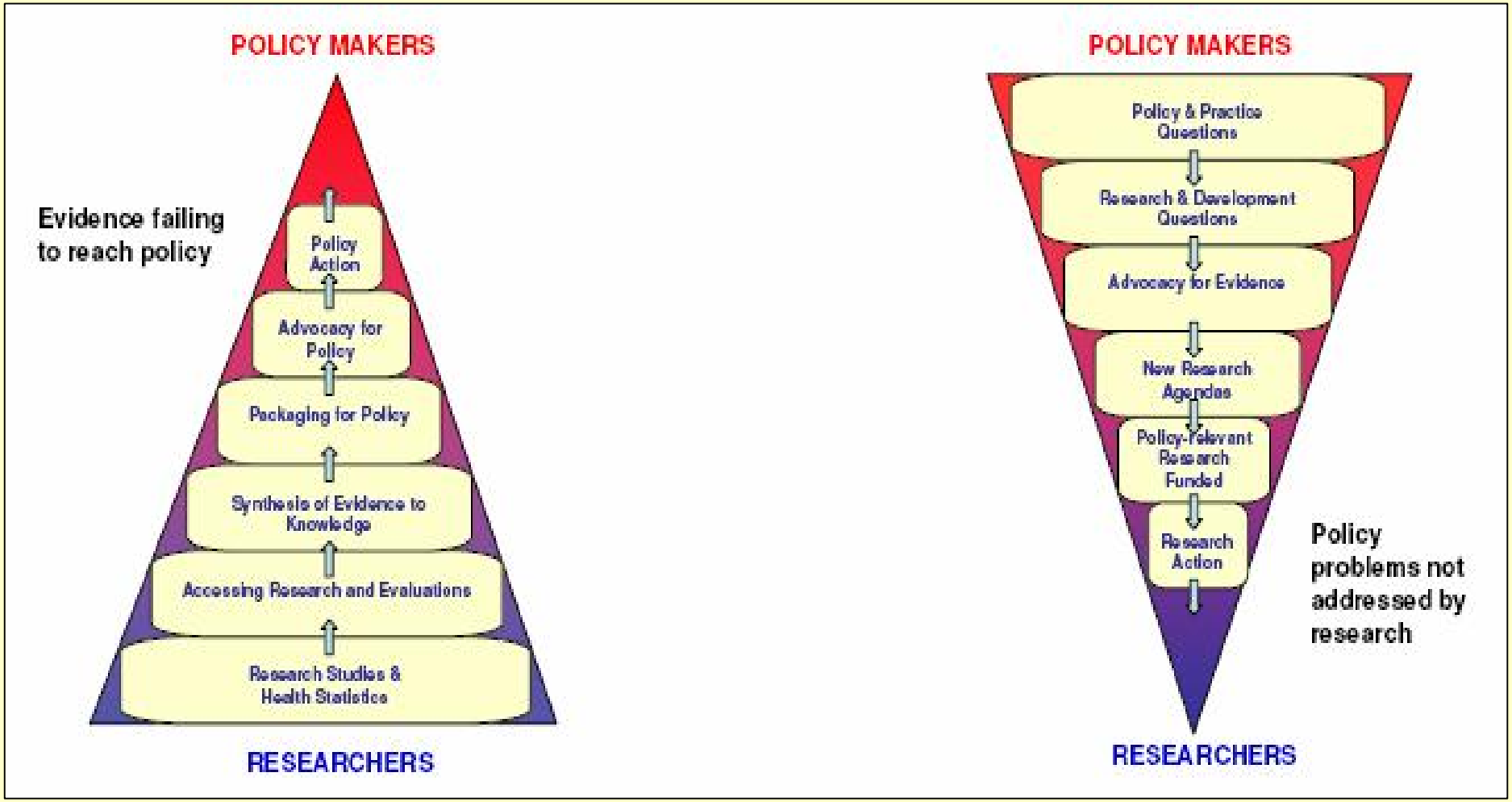
Present the findings at national and international scientific meetings.

Meetings at national level (ministry of health) to discuss policy implications and feasibility/desirability

Attend technical meetings (for example at the World Health Organization) to discuss the overall value of a new intervention

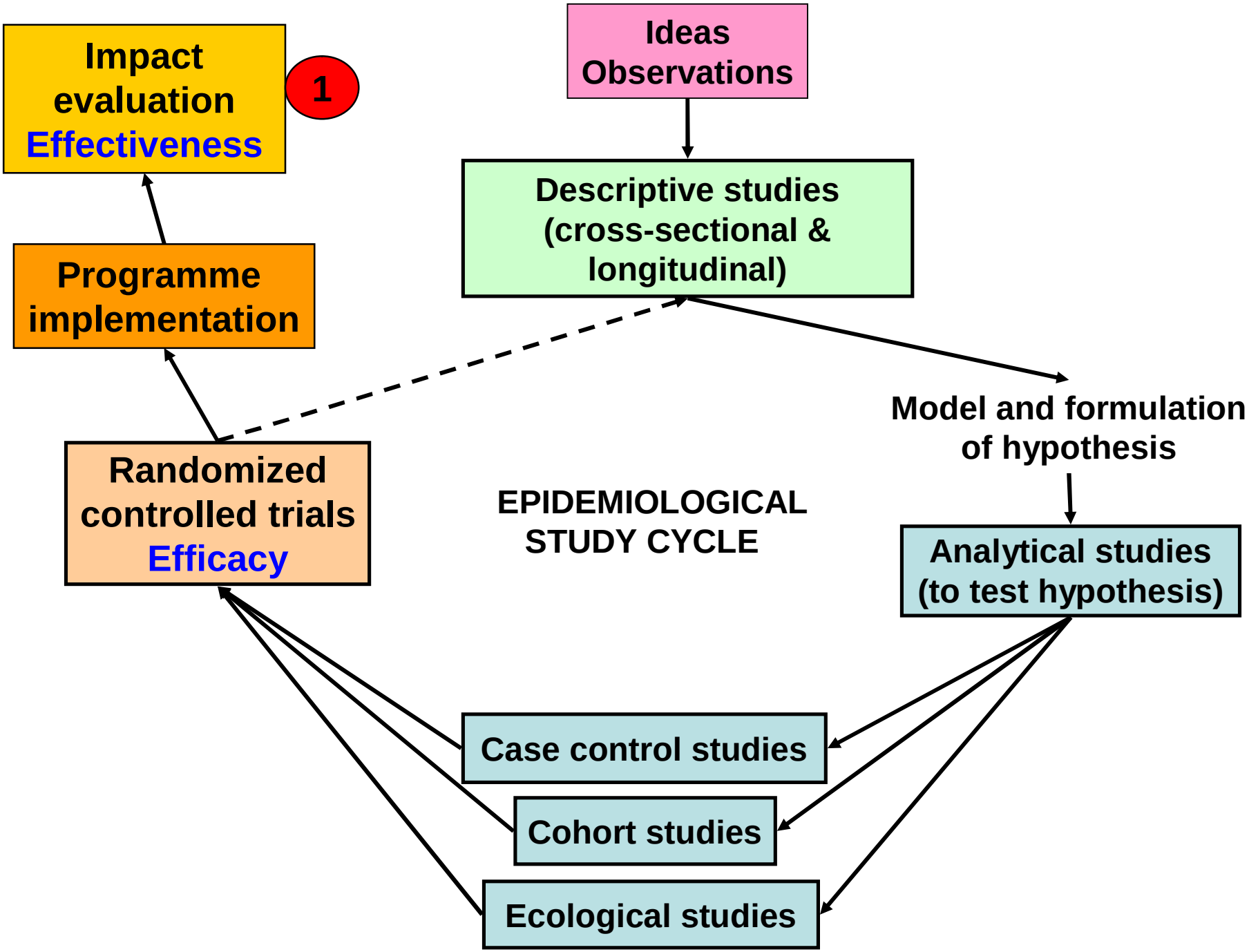
Complete a comprehensive review of all results from the different trials carried out in the world, if possible as a Cochrane Review (see below).

A formal licensing procedure for drugs and vaccines, followed by intense marketing.



Researchers are often frustrated by the slow pace of uptake of evidence into health policies (the *push* approach). Policy makers are often frustrated by the lack of timely information on key policy questions (the *pull* approach).

***Example*: circumcision for HIV prevention. Evidence seems solid… but how to design policy and implementation? REACH policy initiative in East Africa.**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Assessing Impact: Efficacy vs Effectiveness

Efficacy: measure of the impact of an intervention under ideal (maximal) conditions. Usually measured in Phase 3 RCTs and therefore likely to be bias-free. It gives the best possible measure of impact (the "goal" for programmes to reach).

"How well can it work ?"

Effectiveness: measure of the impact of an intervention under "real world" conditions. Usually measured in large-scale programmes.

"How well does it work in practice"

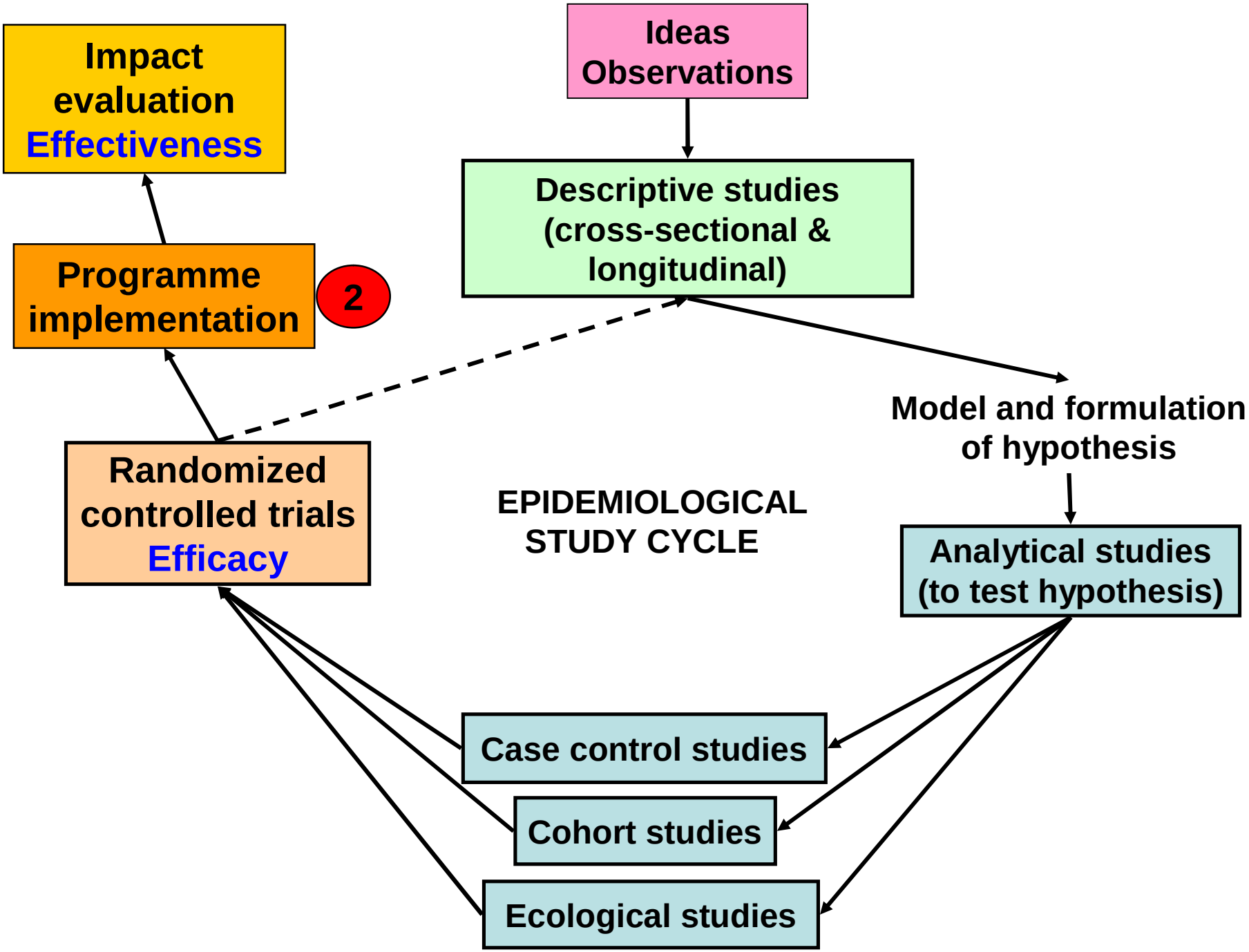
The two measures should ideally be very close but this is often not the case…

For drugs: treatment compliance might be lower, the indications might be less rigorous, co-morbidity might affect treatment effect, ages might be different in routine utilization compared to trials, etc.

For vaccines: There might be a problem with the storage (or the cold chain) that reduces the vaccine's performance. For multi-dose vaccines compliance might be low.

For public health programmes: diagnostic accuracy, coverage and compliance might be sub-optimal (see below); delivery might not be optimal or irregular, lower coverage rates might impact if "herd effect" is required, etc.

Scientists should not only focus on efficacy assessment, but also undertake effectiveness assessments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Phase 1 (1980s)
- Mechanisms of action
- Net-insecticide combinations
- Safety

"Pre-clinical"
- Initial concepts
- Early applications (World War II)

Phase 2 (1987-1990s)
- Small-scale trials
- Efficacy
- Side-effects

Phase 3 (1990s)
- Large scale, randomized controlled trials (morb./ mort.)
- Efficacy
- Side-effects
- Some operational findings

Phase 4 (2000+)
- Effectiveness measures
- Long-term impact
- Safety and rare events
- Product development

Policy making
- Conferences (Wash, DSM)
- WHO meetings (GVA, Braz.)
- Publications (incl. Cochrane review) and documents

National ITN Upscaling
NOW

Evidence from RCTs (efficacy) and from implementation programmes (effectiveness) is available end 1999 (International ITN conference in DSM)

How can scientists be involved in the implementation?

1. Make results known at national level through formal and informal meetings with relevant individuals and institutions:

- **Minister of Health, PS, etc.**
- **National Malaria Control Programme**
- **Other researchers**
- **Bilateral donor agencies**
- **Non-governmental organizations**
- **Private sector**

2-hour meeting in early 2000 to present findings to senior MoH officials

2. Publications in accessible language

KINET project Brochure in addition to Lancet paper

3. Contribute to the writing of a national policy and see that it gets approved officially

July-August 2000, preparation of policy document with 2 consultants, financing from UNICEF

December 2000: policy approved by senior MoH officials

4. Contribute to creating an appropriate national forum for discussing the results, elaborating the policy and finally implementing a programme

Creation of national ITN Steering Committee by MoH…
Two scientists sitting on it

5. Contribute to setting up a national programme coordination unit for ITNs

ITN cell created with Swiss support in 2002; Team leader and staff recruited in 2003

6. Contribute to funding applications

Successful GFATM application in 2003 (Round 1) and later rounds; PMI, WB, etc.

7. Continuous technical support through involvement in ITN cell and national ITN Steering committee

Ongoing

In some instances, it is appropriate for Scientists to also get involved in programme implementation