



NITI Aayog

(National Institution for Transforming India)
Government of India



Science for Policy and Policy for Science

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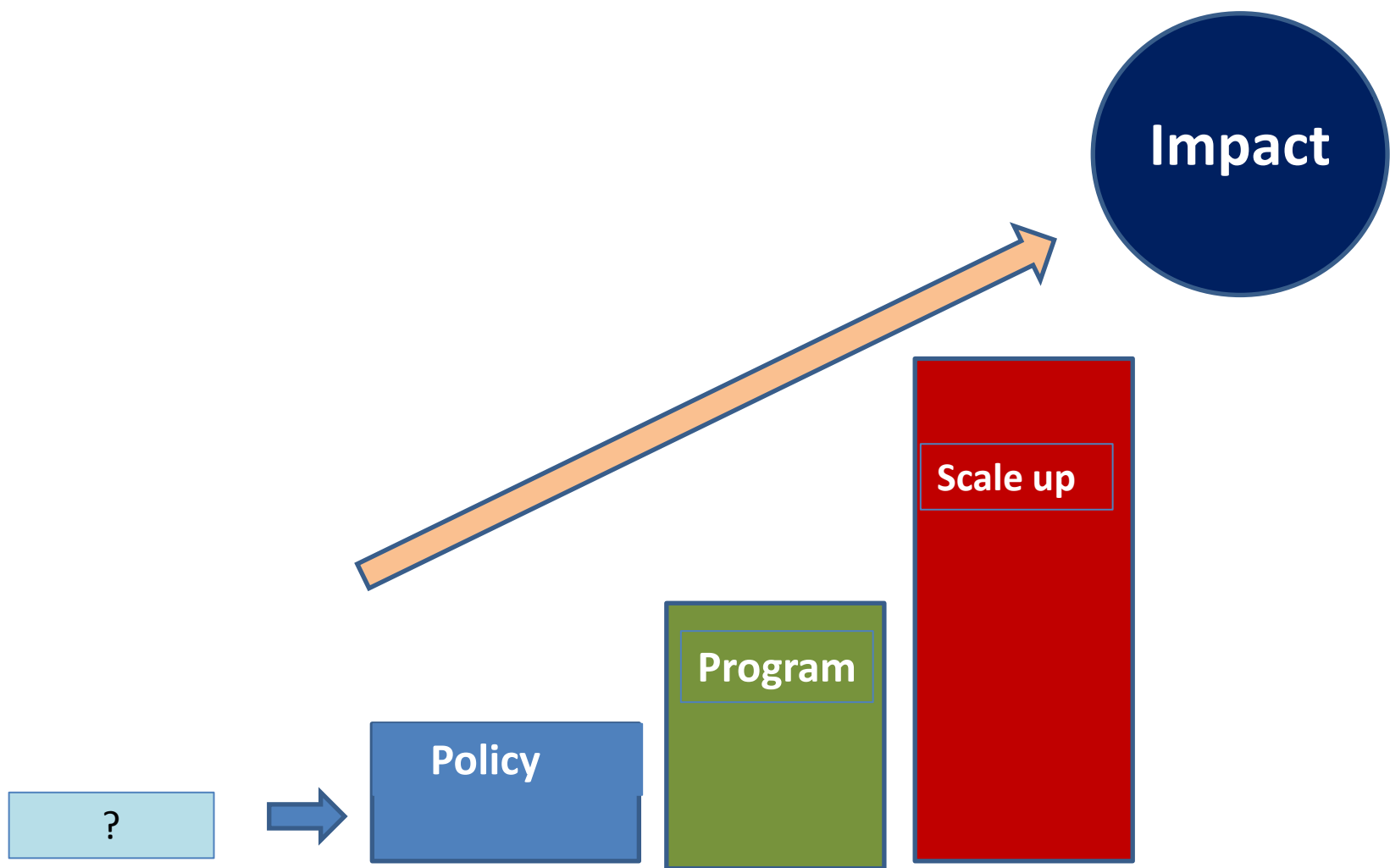
MEMBER

(Health & Nutrition)

NITI Aayog

National Institution for Transforming India

1. Understanding policy-making paradigm in health



Traditional processes

- **Child Survival and Safe Motherhood Program**
 - UNICEF (1992-97)
- **Reproductive and Child Health Program I**
 - World Bank (1997-02)
- **Reproductive and Child Health Program II**
 - WB steered; 400 m loan (2003-04)
 - A lot of say of development partners

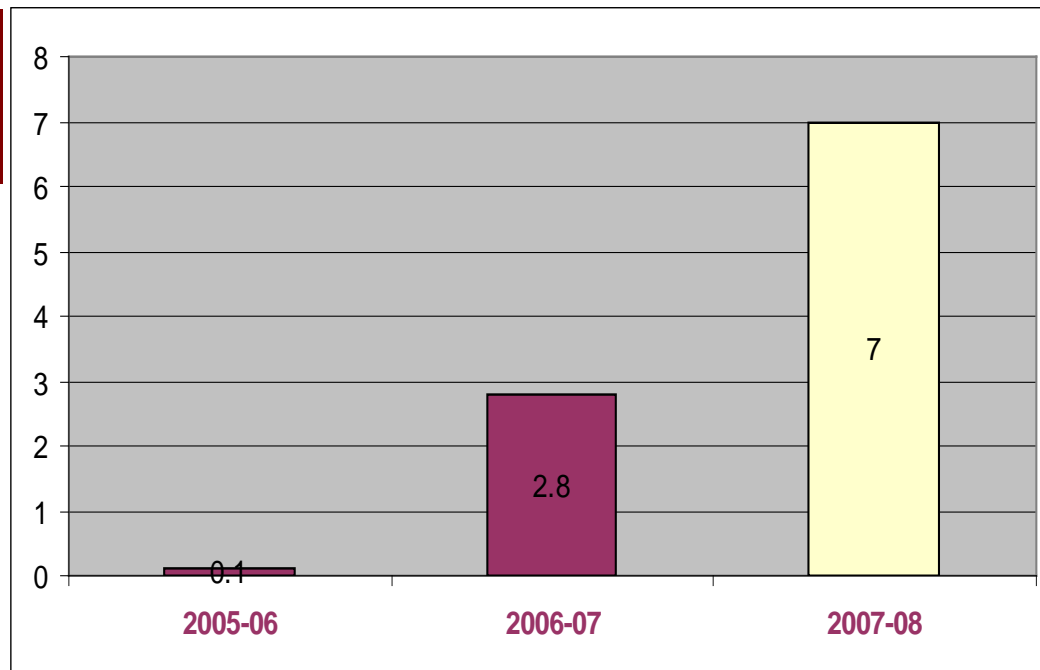
- **Integrated Management of Neonatal and Childhood Illness (IMNCI)**
 - WHO catalyzed (2002-03)
 - AIIMS / WHO in lead
 - Systematic
 - Linked with RCH processes (2004)

Janani Suraksha Yojana

Cash transfer for facility births

- Maternity benefit opportunity captured 2006
- Executive process; no consultation

JSY impact: 28 times increase in institutional deliveries (in govt sector)

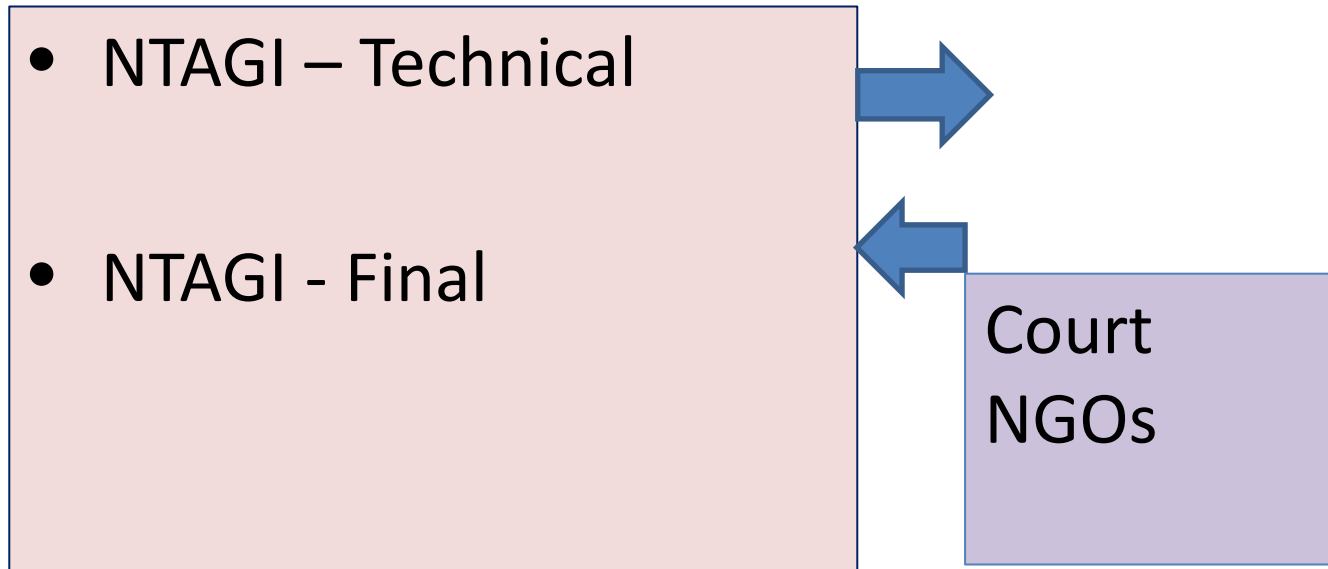


Political – great timing (2005)

- **NRHM**
– **Political**

- Accredited
Social Health
Activists
(0.9m)
– Political

Evidence / Science driven Immunization



NTAGI=National Technical Advisory Group on Immunization

Evidence and 'evidence'

- Home Based Newborn Care

- Early evidence (1999)
- ...
- ...
- Politics by DPs
- HBNC as program 2011
- Poor uptake

- Facility-based newborn care

- Demonstration model (2008)
- Investment by UNICEF
- States owned up
- Carried forward by Gol
- Good uptake: 600+ by the year 2015

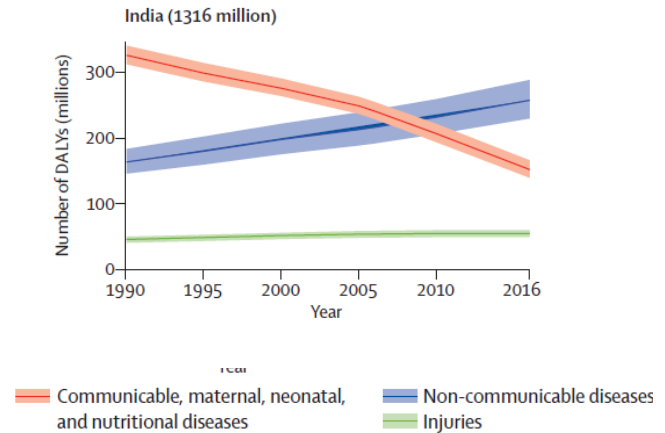
Evidence ⇌ Evidence

- Allowing gentamicin by ANMs for sepsis
 - Evidence since 1999
 - Failed 1 (2005)
 - Failed 2 (2007)
 - Guideline (2012)
 - Scale up ~nil

- Antenatal steroids, Kangaroo Mother Care
 - Global push
 - Scale up slow
- Chlorhexidine cord care
 - Global push
 - Our analyses not in the same direction
 - Local retraction

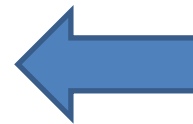
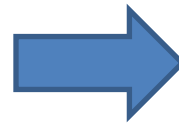
Sometimes, we miss the evidence

- Non Communicable disease burden exceeded others in 2003
- We still have not transformed the program



Health policy

- Aspiration
- National / global goals
- WHO / other agencies
- Science / evidence
- Advocacy
- Resources
- Political will



- Low resources
- Some civil society voices
- System lethargy, status quo
- Equivocal science / evidence

It is an unpredictable world!

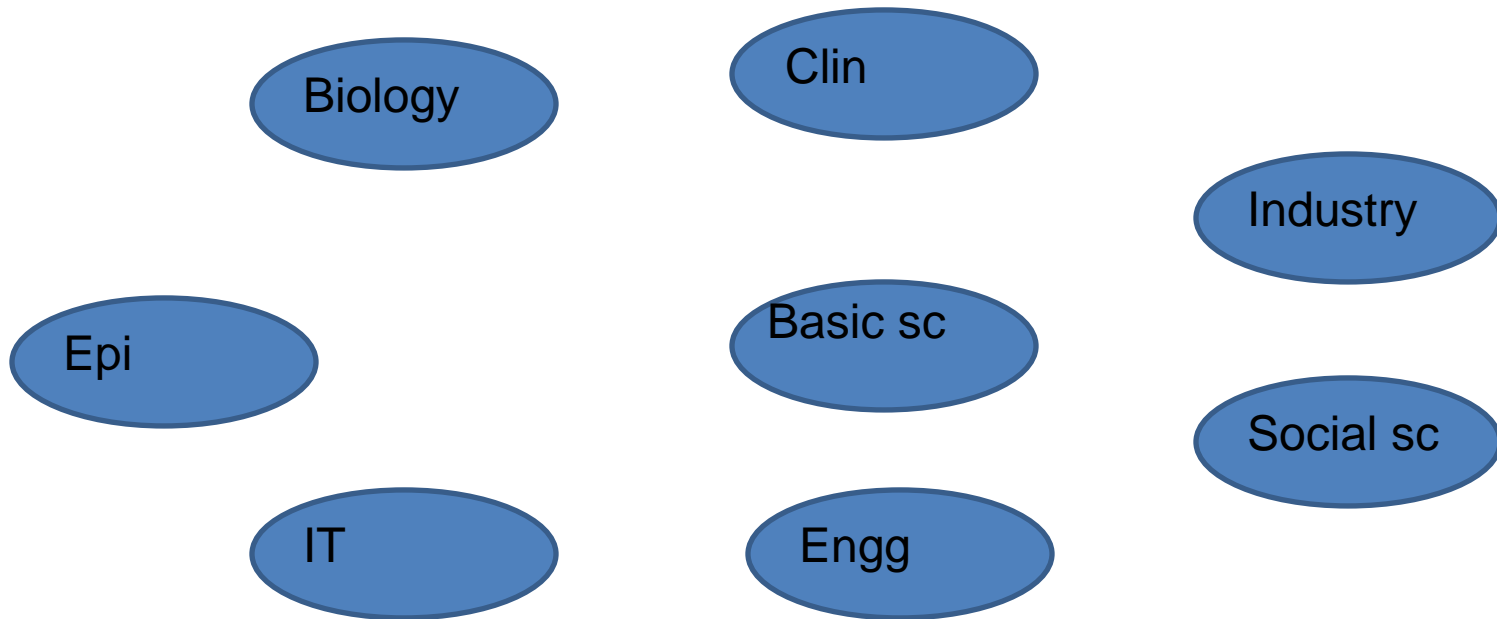
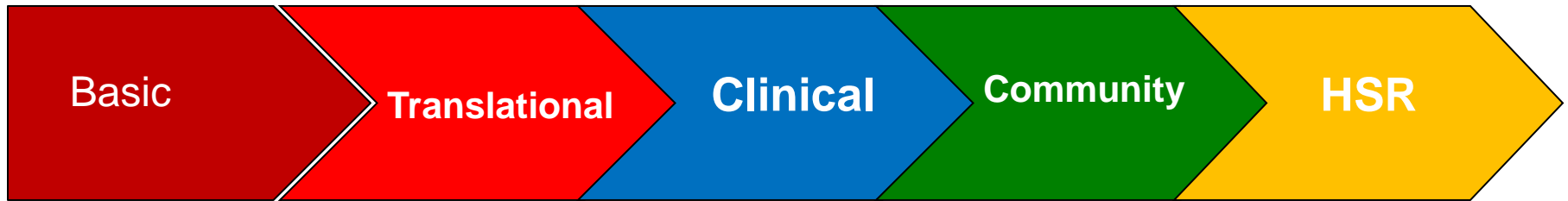
- Different decision making paths decide policy
- Evidence often a basis – not always
 - Evidence a mix of local /global
- Big ticket decisions are political
 - NRHM / ASHAs (MNREGA/ Jan Dhan) {UHC}
- DPs playing a diminishing role
- Professional bodies – some role.
- Critical decision get delayed at times

If nothing happens after policy

- Strategy not developed
- States unclear / uninterested / unsure
- Capacity not developed
- Resources with State weak / absent
- Lack of political will (BSc CH)
- Focus on other issues / policies
- Simply too busy

2. How to bring science into policy decision-making

Biomedical and Health Sciences



Toward an informed health policy paradigm

- Generate evidence
 - Invest in research.
- Synthesise evidence
 - Systematically
 - Without Col
- Create objective policy briefs

Four institutions that India needs – outside government but connected to it, at centre and states

1. Health policy centre / network

- Knowledge integration
- Learn from WHO

2. Medical Technology Assessment Board

- For treatments / diagnostics

3. Technical Support Unit

- Policy to strategy
- Strategy to facilitation

4. Demonstration sites

- Model sites / districts [FBNC]
- Early implementation sites

3. Policy for science

EXPANDING SCIENTIFIC ENTERPRISE

Science is beautiful

- Like art and music, science has a civilizing effect on humanity
- Basic science is the mother of all sciences
- Scientific solutions (especially, low cost, high volume ones) enhance access, promote equity

Innovation

Invention

Discovery

India must aspire for highest
excellence in science

- Transform places of education
 - Universities
 - Medical colleges
 - New AIIMS
 - ICMR/DBT institutions
- Places for discovery, invention and innovation
- But nothing much is changing
 - Smart is not profound
 - We do not find place in top notch publications
 - We produce small IPR

What impresses policy makers

- **Fame, pride, prestige**
 - *'Mangalyaan'*
 - Nobel prize
- **Solutions**
 - Green revolution
 - Defense
 - Cures: Vaccine, diagnostic, drug
 - Jobs

Are we oblivious of the big

- ‘The merger of infotech and biotech is giving rise to algorithms ... that may soon outperform doctors, drivers, soldiers and bankers in such tasks. These algorithms could eventually push hundreds of millions out of the job market.’

—Nature October 19, 2017

Are we oblivious of the big

- Outdoor air pollution
- Water scarcity/quality
- Soil health
- Stunting, obesity
- Clean energy
- Antimicrobial resistance
- Precision public health
- School education quality

Role of academies

✓ Advocacy

- But it works only when we are credible and speak in one voice

Policy *toward* science

- Low budget for R&D
- Science matters less than economics

- Do we write OpEds?
- Do we have *our* think tanks?
- Do we have a voice on *their* think tanks?
- Have we articulated our views on big problems?
- Do we have a journal called 'Science for development'?
- Are we one voice - SIT Policy 2013 does not have the words 'biomedical', 'health' or 'medicine'

Way forward

1. Plunge into new areas where IP space is empty
2. Push India's competitive edge for future basic sciences
3. Grand challenges work better with us
4. Adopt scientific advances fast
5. Invest in ecosystems for innovations
6. Build capacity for measurement, interpretation, problem analysis, knowledge synthesis sciences

Way forward

- **Join hands** to address the solutions that bring pride and those that offer solutions to real big problems
 - Have vision and strategies for
 - 2025
 - 2030

India @ 75



New India @ 2022



India @ 75



New India @ 2022

Let us together accomplish 10
big, interdisciplinary scientific
missions by 2022

