Summer Training at
Public Health Foundation of India (PHFI), Gurgaon.
April 2020-June 2020

- **ASSESSMENT OF COVERAGE AND INFRASTRUCTURE OF EMPLOYEES' STATE INSURANCE SCHEME**

- **INTRODUCTION TO SYSTEMATIC REVIEW AND META-ANALYSIS**

Under the guidance of Dr. Alok Mathur

A Report by
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2019-2021

Contents-

- Part1-Remote internship

- Part 2-Online course

S.W.O.T Analysis of Remote Learning

STRENGTHS • **Competent mentors and teachers.** • **Practicing physical distancing.** • **Work and home balance.** • **Ease of accessibility to data.** • **Compliance with changing circumstances.** • **Shared decision making.**	WEAKNESS • Reiteration of tasks. • Interruption in networks. • Decreased interpersonal communication between colleagues. • Power cut issues.
OPPORTUNITY • **Inculcating paperless working.** • **Skill development in virtual learning.** • **Open environment for the prosper of ideas.** • **Participation in the multiple, relevant researches.**	THREATS • Risk of modified work environment. • Incoordination in timing of work among the colleagues. • Inability to learn from experience of mentors.

A statutory body under the Ministry of Labour and Employment

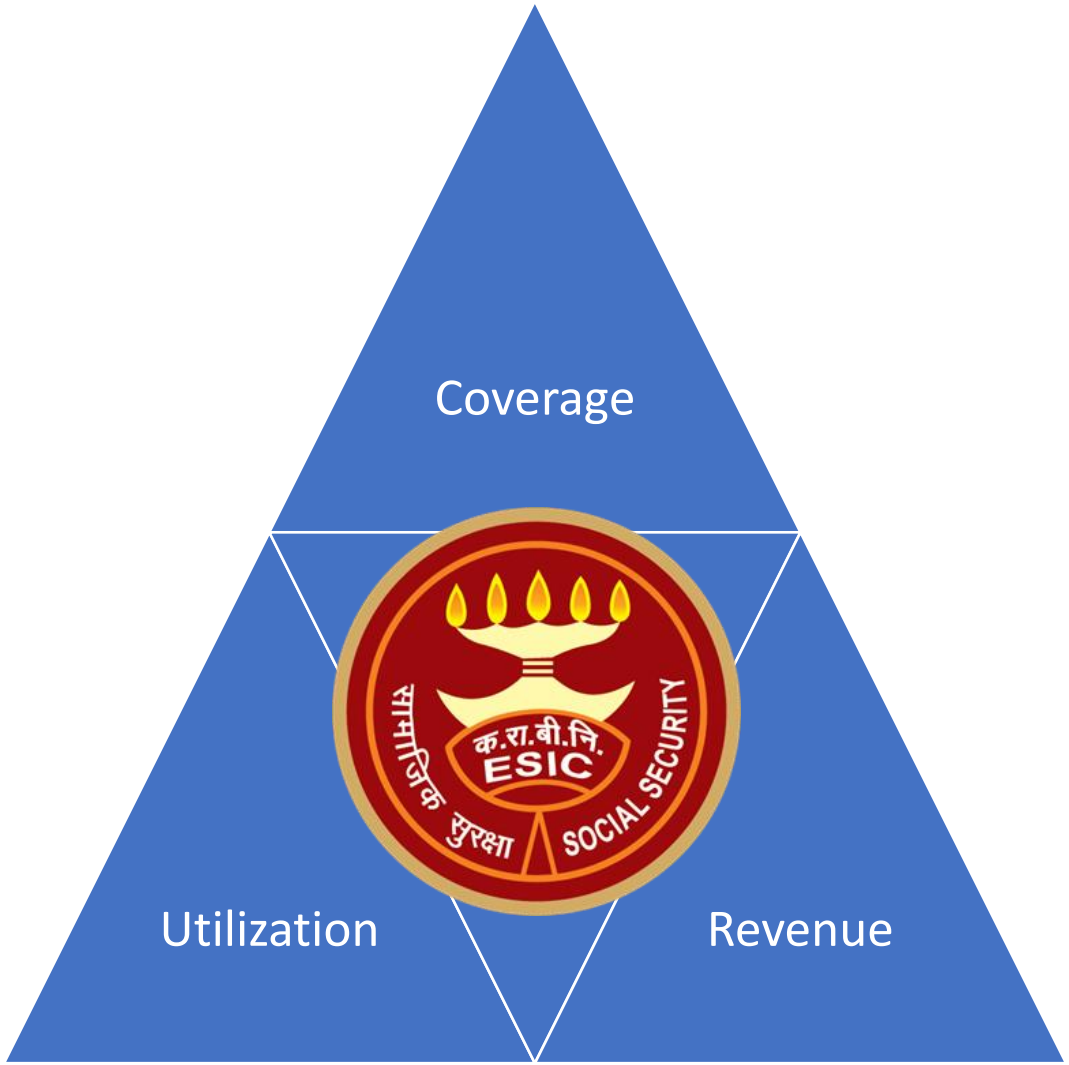
Part 1-Remote Internship

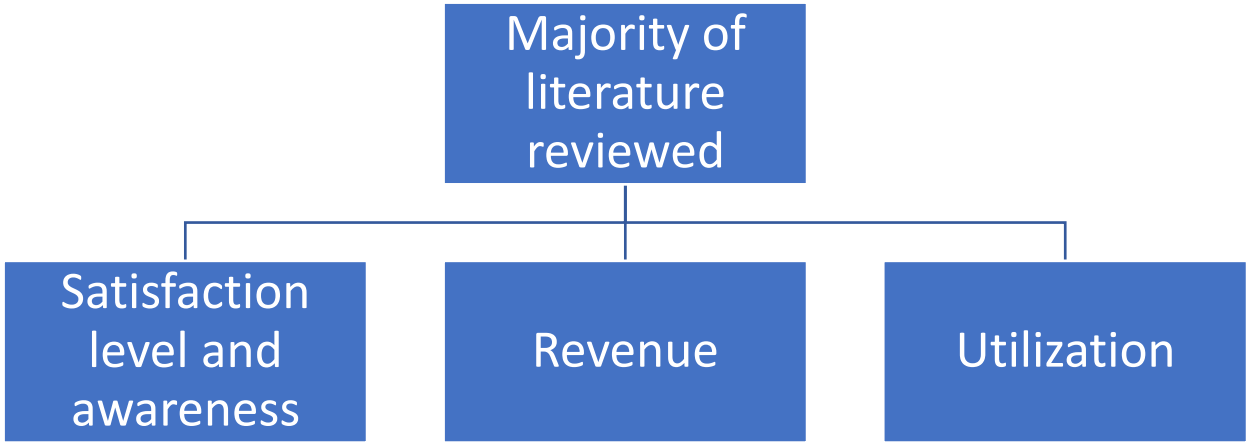
Assessment Of Coverage And Infrastructure Of Employees' State Insurance Scheme

Introduction

- Employment State Insurance Scheme (ESIS) is a self-financed, unified and multifaceted Indian social security system for the employees and their dependents of the organized sector of employment, covering and encompassing the whole nation.
- With the launch in 1952, the Employment State Insurance Corporation (ESIC) panels the functioning of ESIS.
- In factories commissioning 10 or more persons and establishment commissioning 10 or 20 or more persons relying on the norms of different States, in the notified zones.
- This is accomplished with the minimal contribution paid in form of premium.
- Attaining societal safety by providing monetary benefits and cash payments in hours of need for the workers of the organized sector is foremost goal of the scheme.

Rationale of the study

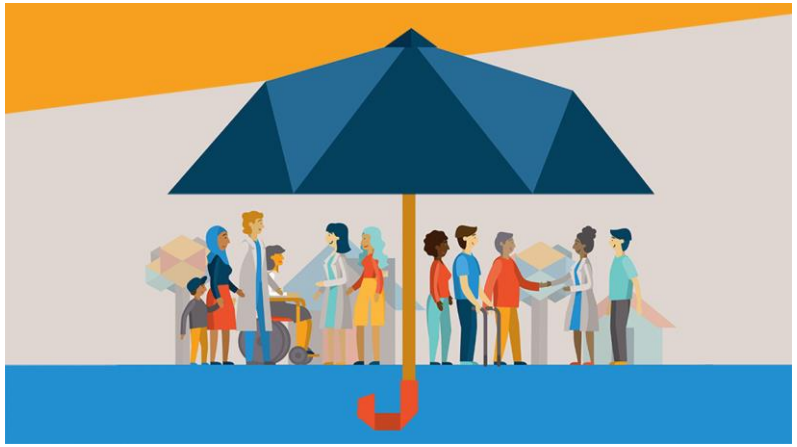




- ESIS holds importance in the Indian context. However, less data is documented about coverage and infrastructure of ESIS country wide. Therefore, to fill this existing gap in literature we conducted a descriptive study to assess the coverage and infrastructure of ESIS.
- The data for these indicators has been taken from the annual reports of ESIC from year 2000 to 2018. This will further help to explore and bridge the gap in the literature regarding coverage and infrastructure of ESIS.

Objectives of the study

- The objective of the study is to assess the coverage and infrastructure under the ESI corporation over the year 2000 till 2018 and interpret the trend and patterns wherein the corporation is lacking to implement effective and efficient ways to provide social security to the labor class.
- To assess the extent and dimension of coverage and infrastructure under ESIC over a time period of 2000-2018.
- To assess the gaps in coverage and infrastructure under ESIS..



Methodology

Descriptive Design

2000-2018

Tables and Graphs

ESIC Annual Reports

Indicators used to assess the coverage and infrastructure are as follows:.

1.Coverage- Number of :

States/UTs

Employers

Employees

Family Units

Implemented Centers

Beneficiaries

Women

Inspections & Surveys

2.Infrastructure- Total number of :

Hospitals & Annexes

Dispensaries

Beds

Inspection Offices

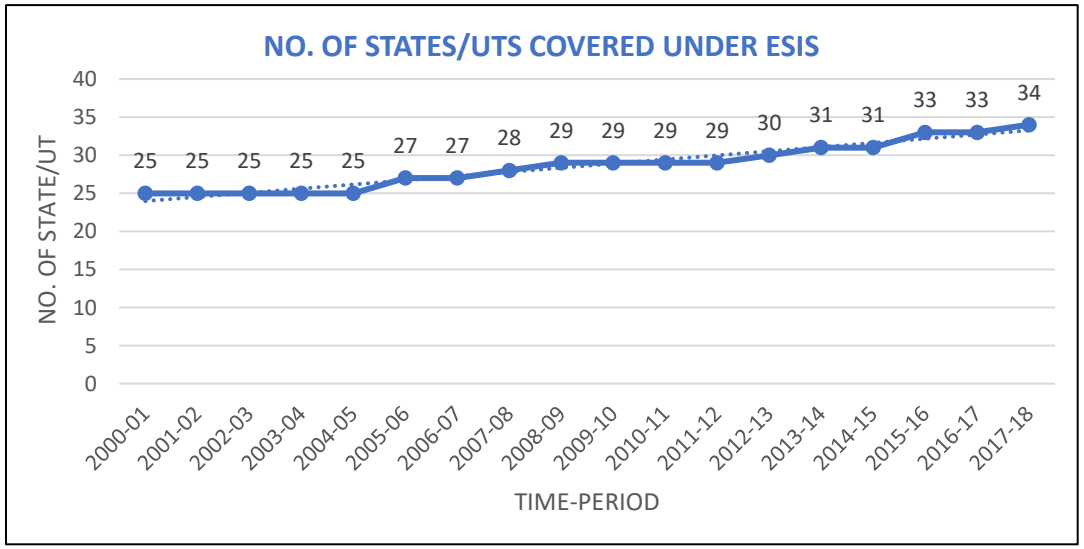
Insurance Medical Practitioners

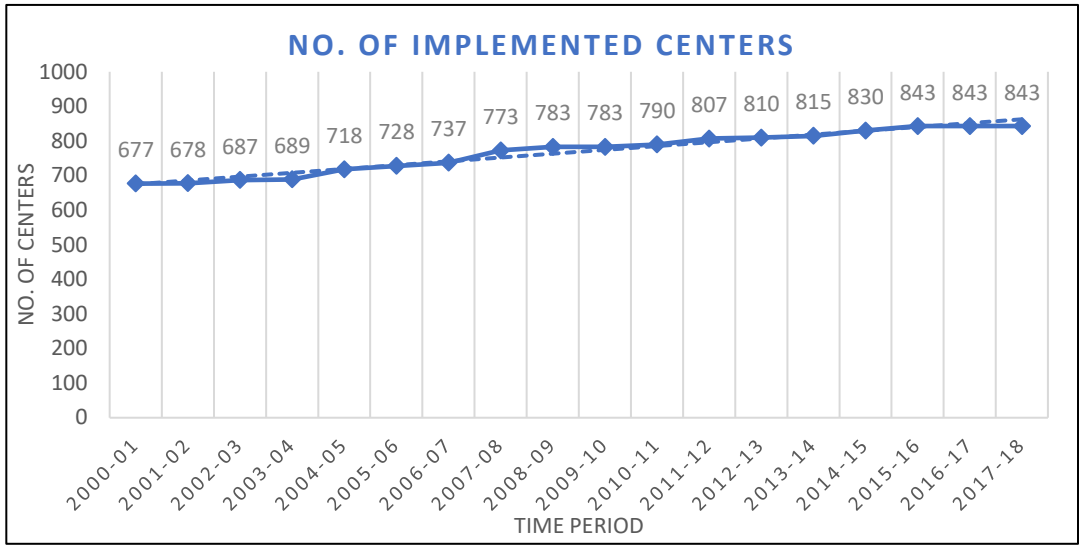
Insurance Medical Officers

Beds Commissioned

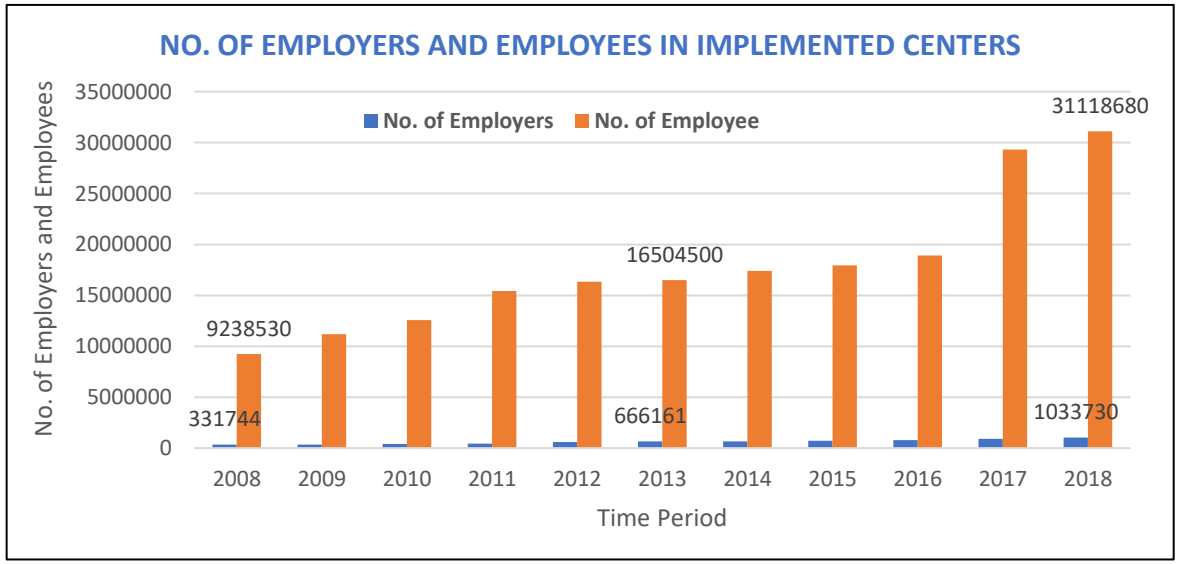
Indian System of Medicine(AYUSH)

Findings

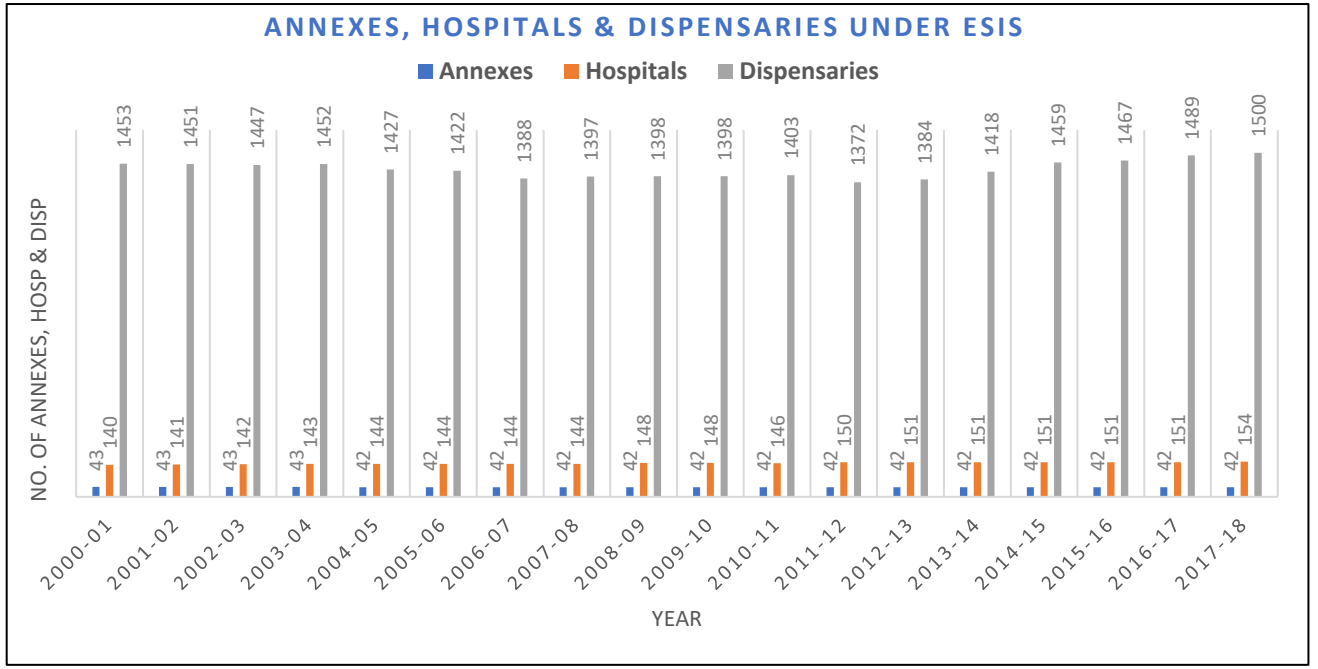




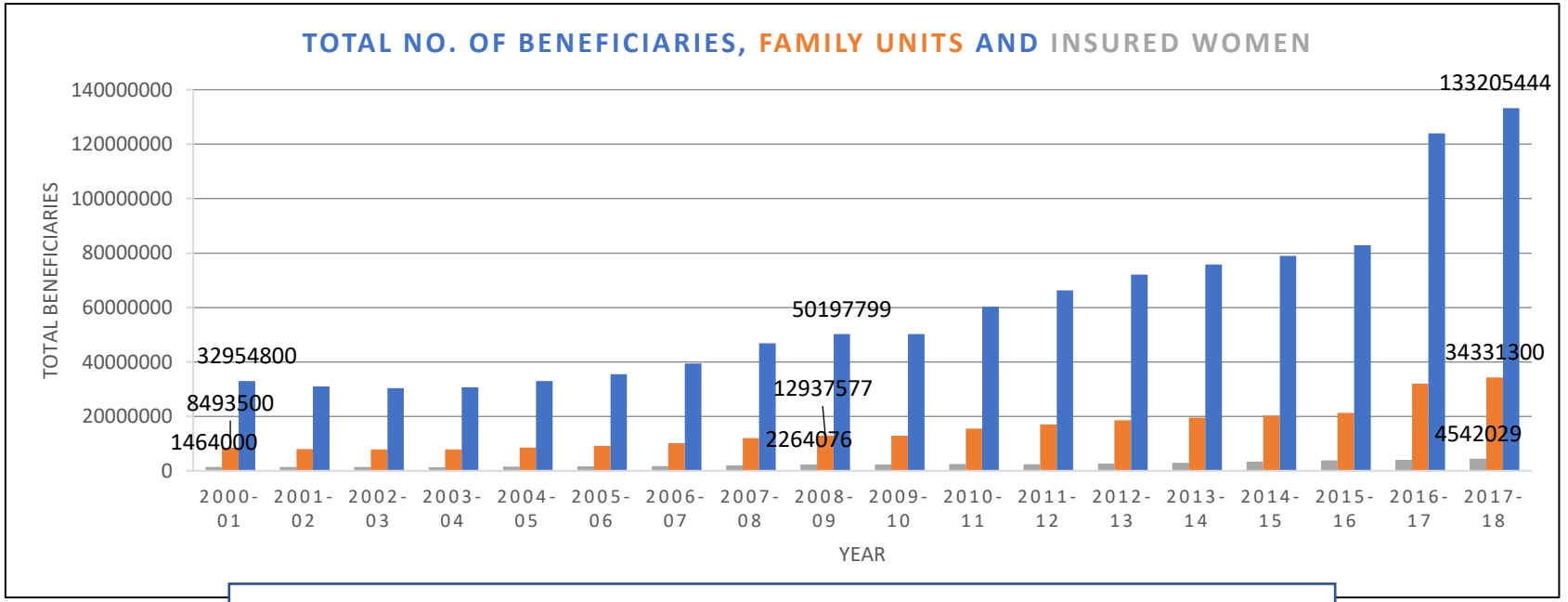
- While the number of States and Union Territories showed a growth of 36%, the implemented centers grew by 24.50% .
- The nationwide total number of employees and employers both increased approximately by 334%



- The annexes decreased by 2.38% and the hospital increased by 10% but the dispensaries increased only 3%

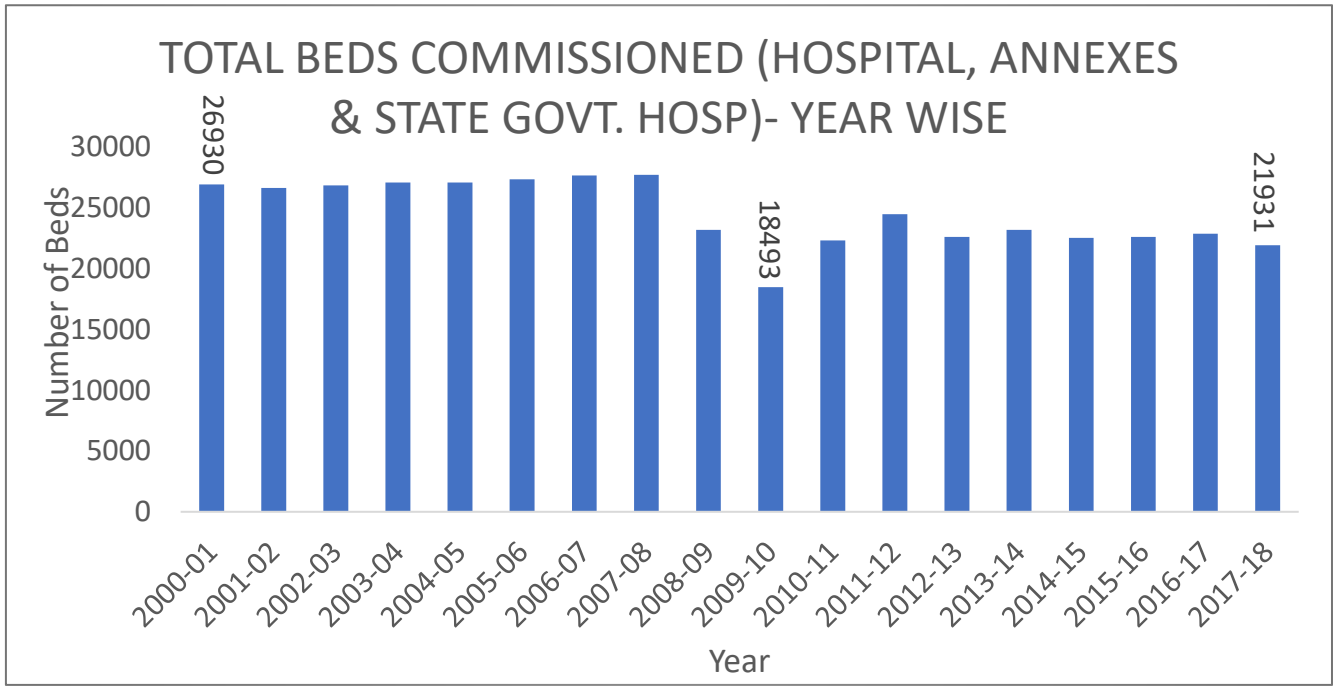


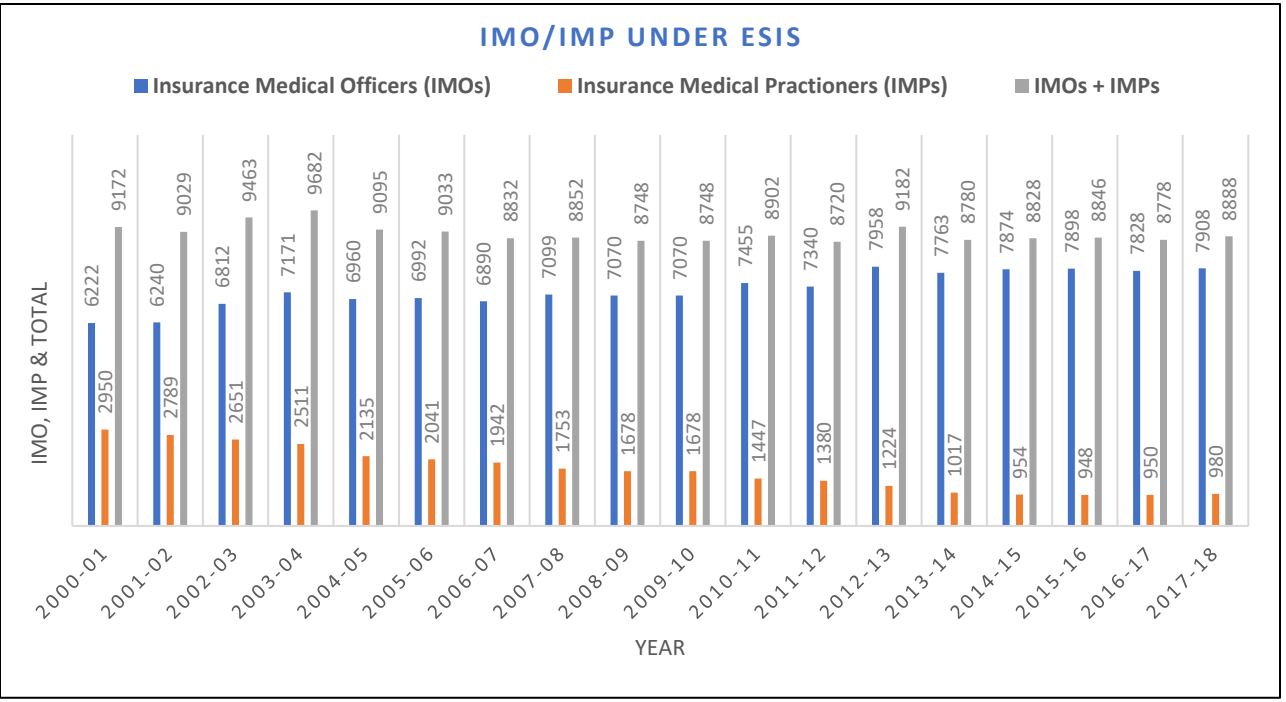
- Growth%
  - Beneficiaries- 304%
  - Family Units- 304%
  - Insured Women- 210%

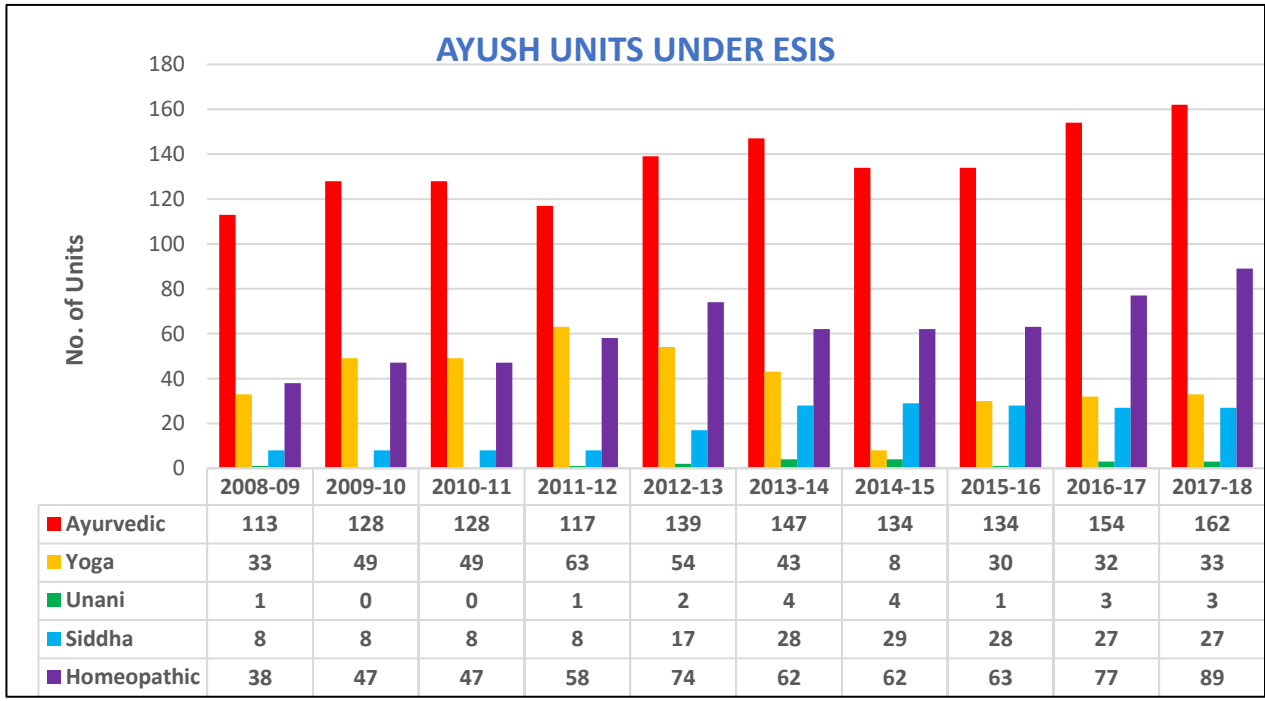


The total number of beds commissioned declined by 18% with 3% decline in IMPs + IMOs collectively.

AYUSH industry showed a new boom with a growth of 62%

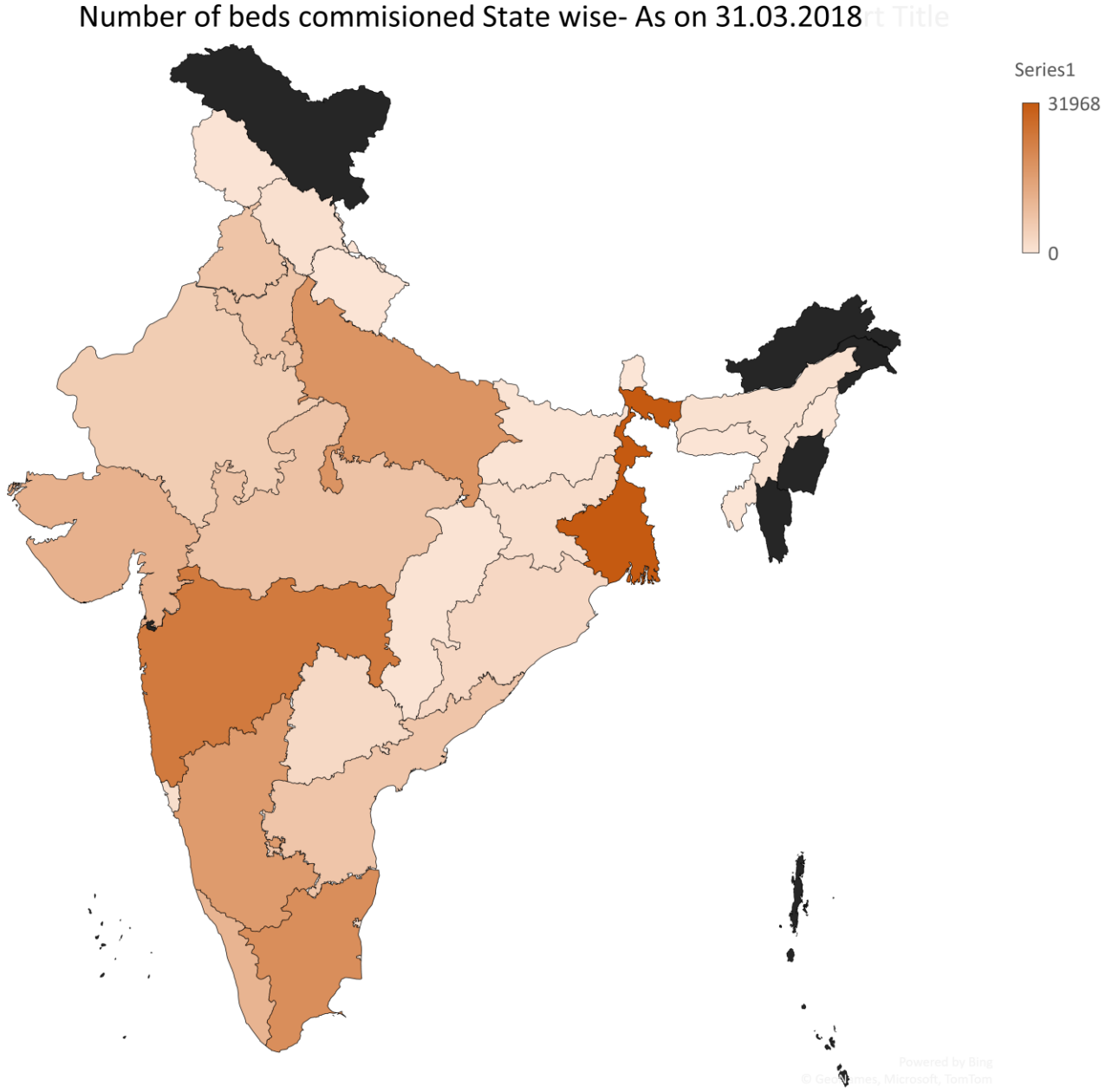




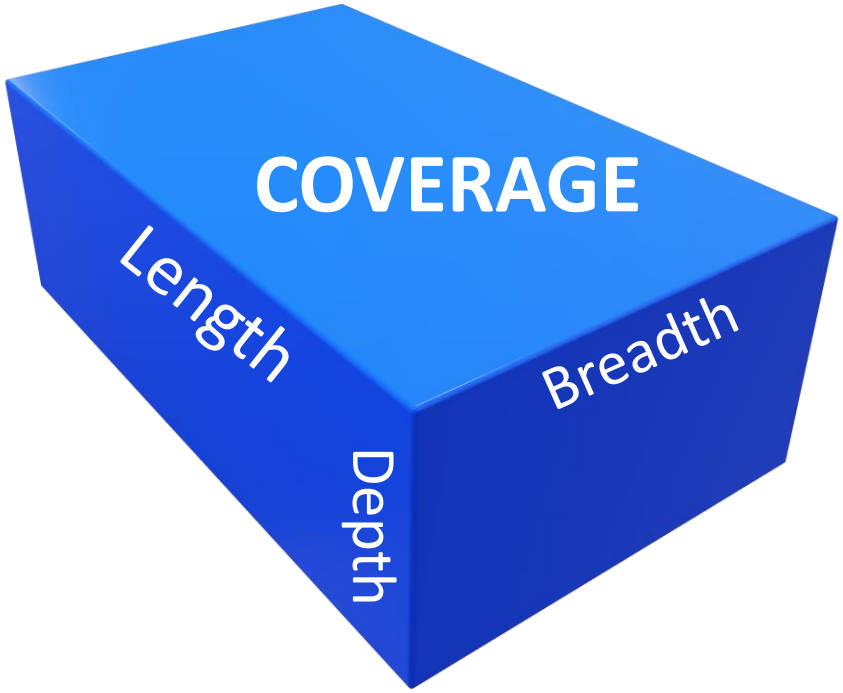


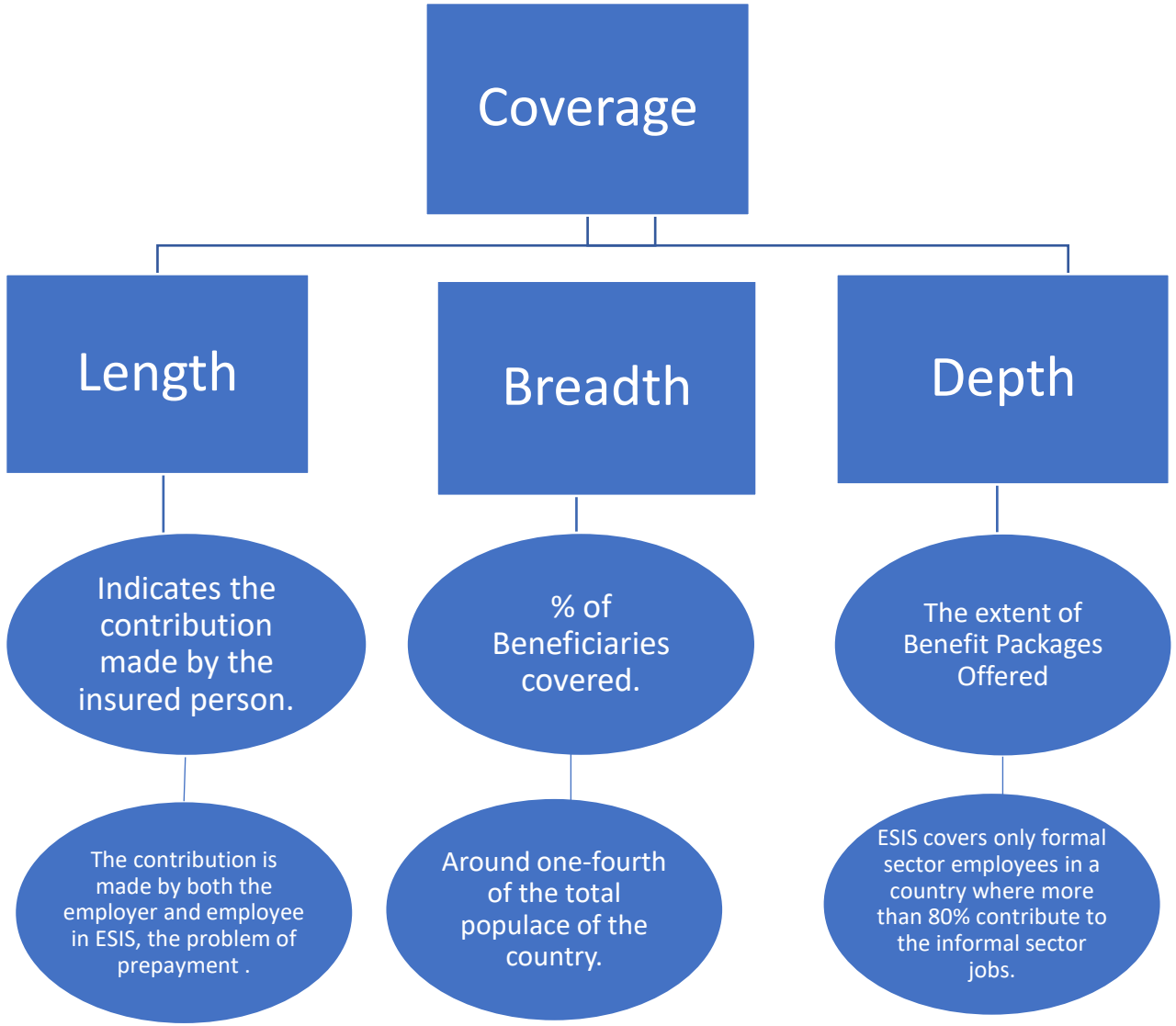
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Ayurvedic	113	128	128	117	139	147	134	134	154	162
Yoga	33	49	49	63	54	43	8	30	32	33
Unani	1	0	0	1	2	4	4	1	3	3
Siddha	8	8	8	8	17	28	29	28	27	27
Homeopathic	38	47	47	58	74	62	62	63	77	89

- As on 31.03.2018, the state wise data of Indian states and Union territories showed absence of commissioned beds in Ladakh, regions of Arunachal Pradesh, Manipur and Mizoram.
- West Bengal and Maharashtra show highest grade of commission.



Conclusive Dimensions of Coverage





Conclusions

The ESIS has been extended up to 34 States/UTs including north-eastern states with 843 implementing Centers as on 2018.

The scheme has been extended to 10.33 lakhs employers (factories and establishments registered) and 3.11crore employees. With the number of employees, the family units also increase to 3.43 crore as of 2018 reports.

Total beneficiaries are as high as 13.32 crore.

Inspection and surveys have reduced to 15141 and 3685 in 2018 which were reported as 31771 and 37861 respectively in 2000.

The total number of beds commissioned has also decreased over the years. There comes a deficiency of beds for the employees and their families. It seems that ESIS focuses on providing primary care to the beneficiaries rather the majority. than secondary or tertiary care for the reason that the referral system remains doubtful for

There is a huge disparity between the number of employees registered and beds commissioned for them.

Promotion of AYUSH along with ISM has led to their construction and establishment of AYUSH units under ESIS. However, the services are underused owing to many other factors.

Recommendations

Ladakh and Manipur, 2 out of the total 36 States and Union Territories, are yet to be covered under the ESIS.

Inspections and surveys are to be further to be increased, registered and collaborated with proper monitoring, evaluation and functioning of the infrastructure of the scheme. Consequently, further helping in formulating policies and scrutinizing the working of the scheme as well.

The number of beds and diagnostic facilities should increase proportionately with the number of insured employees and their families to have a balance between the two.

Expansion of AYUSH amenities through coverage and infrastructure can further develop ESIS.

The coverage should be extended to informal/unorganized sectors like the agricultural workers, small- and medium- scale businesses too encompassing the disparities like migration.

Exploration and abridging the gaps in ESI scheme with further study and research is the way forward.

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Part 2- Online Course

- **INTRODUCTION TO SYSTEMATIC REVIEW AND META-ANALYSIS**
- **By John Hopkins University**

COURSE DESCRIPTION

- The course on “Introduction to Systematic Review and Meta-analysis” of Randomized Control Trials, requires six weeks of commitment with four-six hours per week.
- This course helps in the formulation of an accountable research question, describe exclusion and inclusion measures, the examination of the evidence, excerpt data, evaluate the menace of bias in randomized clinical trials and complete a meta-analysis. The course is English with the availability of subtitles.
- The course is provided by John Hopkins University, who are premiers in the field of research and analysis in healthcare.

Levels of Evidence

OBJECTIVES OF THE COURSE

To determine and understand the steps while conducting a systematic review and meta-analysis.

To gain the ability to critically read literature in systematic review and meta-analysis, in the future.

To advance the skill to assimilate the outcomes of the systematic review into the future works by answering “Participants Interventions Comparisons Outcomes” (PICO) outline and framework.

To gain knowledge of better practices doing searches, collecting, and extracting the data for systematic reviews.

To define means to critically evaluate the menace of “bias of clinical trials “and elaborate on the risk of bias.

To advance in the field of skill development with introduction and interpretation of metabias and qualitative synthesis.

To develop and refine clinical question that can be addressed by a systematic review

Course Contents

Video Lectures

Readings

Quizzes

Peer Review Assignments

Field Videos

Grading Policy

- The final grade is calculated as follows-
- Each quiz = 9 percent of the total grade. (9*7=63%)
- Peer Review 1 = 15 percent of the total grade.
- Peer Review 2 = 22 percent of the total grade.

Key Learnings

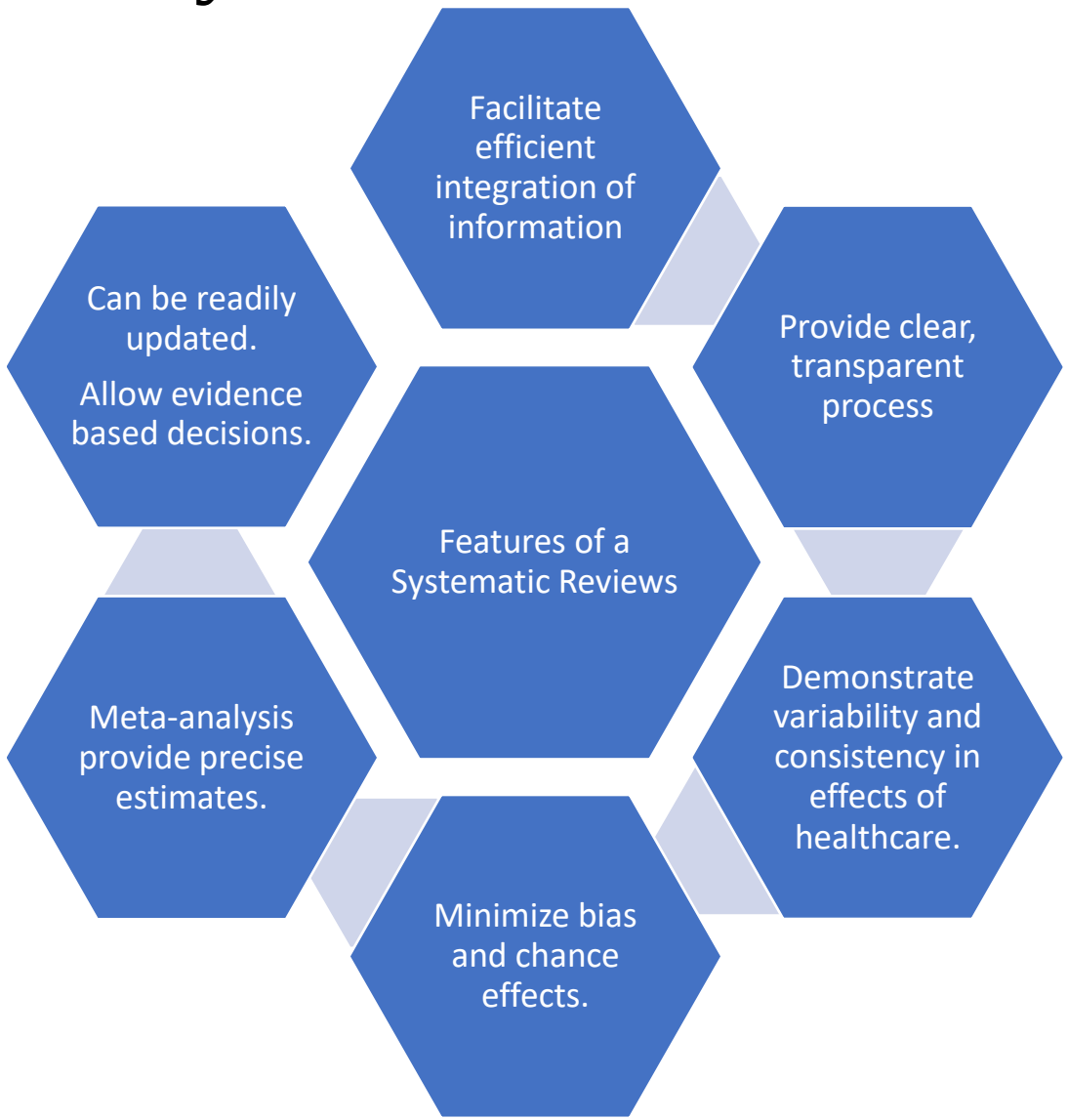
Systematic Review practices unambiguous, prearranged methods to categorize, select, evaluate, recapitulate, and produce results from comparable but distinct studies.

Meta-analysis is the numerical technique of investigating and quantifying a hefty assemblage of results from discrete studies.

Systematic reviews summarize the evidence based healthcare, medicine, policy, public health and sky is the limit.

Steps of a Systematic Review

Features of a Systematic Reviews



Structure of Systematic Reviews

1. Background and description of motivation for meta-analysis.

2. Methods

- Description of search strategy
- Eligibility criteria
- Description of data abstraction and manageme
- Quality assessment
- Statistical methods

3. Results

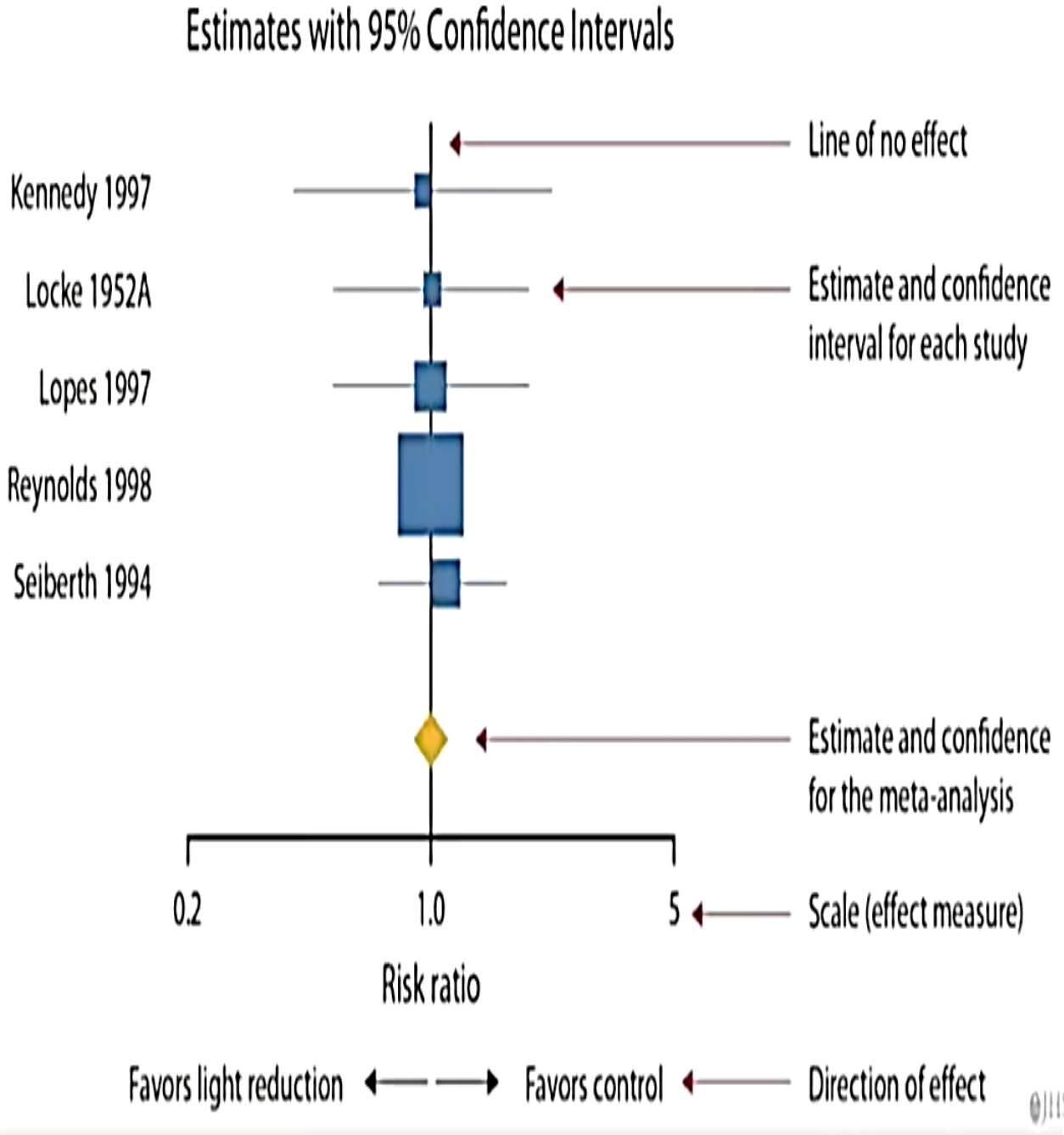
- Search yield
- Qualitative Synthesis
- Quantitative Synthesis

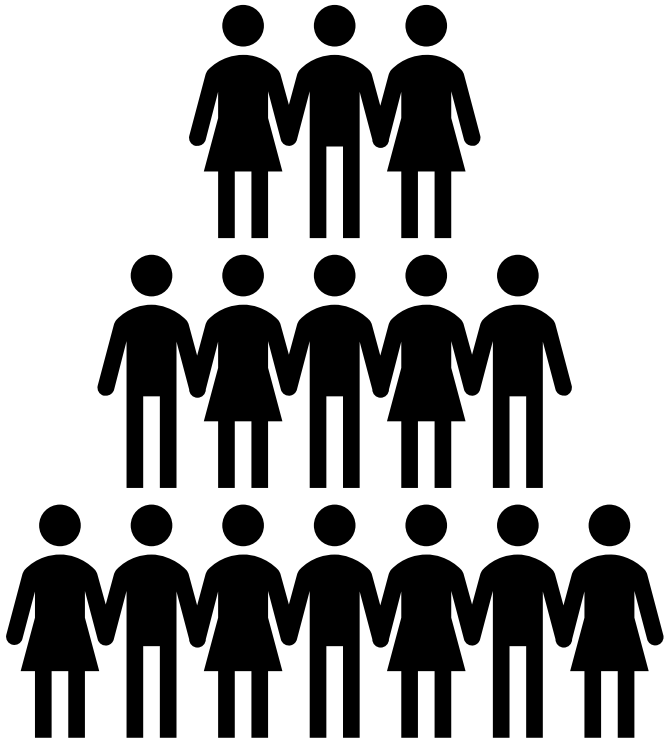
4. Discussion and findings.

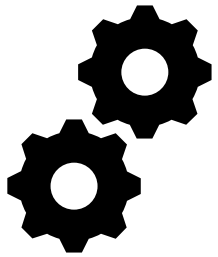
One Size Does NOT Fit All! Use Your Question Classification to Seek the Appropriate Type of Evidence

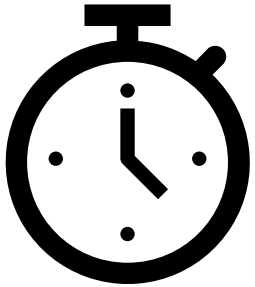
Question	Look for evidence from:
Incidence, prevalence	Surveys, cohort studies
Therapy	Clinical trials
Screening	Clinical trials
Diagnostic accuracy	Clinical trials, cross sectional studies
Prognosis	Clinical trials, cohort studies
Harm	Clinical trials, cohort studies, case control studies
Etiology	Cohort studies, case control

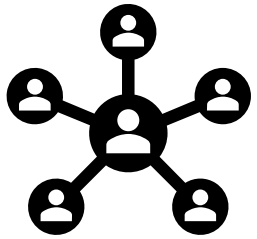
Major referential electronic databases are- “PubMed, MEDLINE, EMBASE, ISI web of science Cochrane library, national and regional databases, object-specific databases and citation databases.”

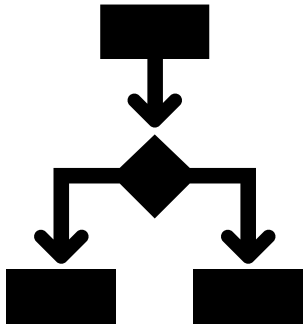












Elements of an answerable question include-

P-Population with disorders, conditions or area of interests

I-Intervention/exposure with a time interval, dosage concentration or course of administration

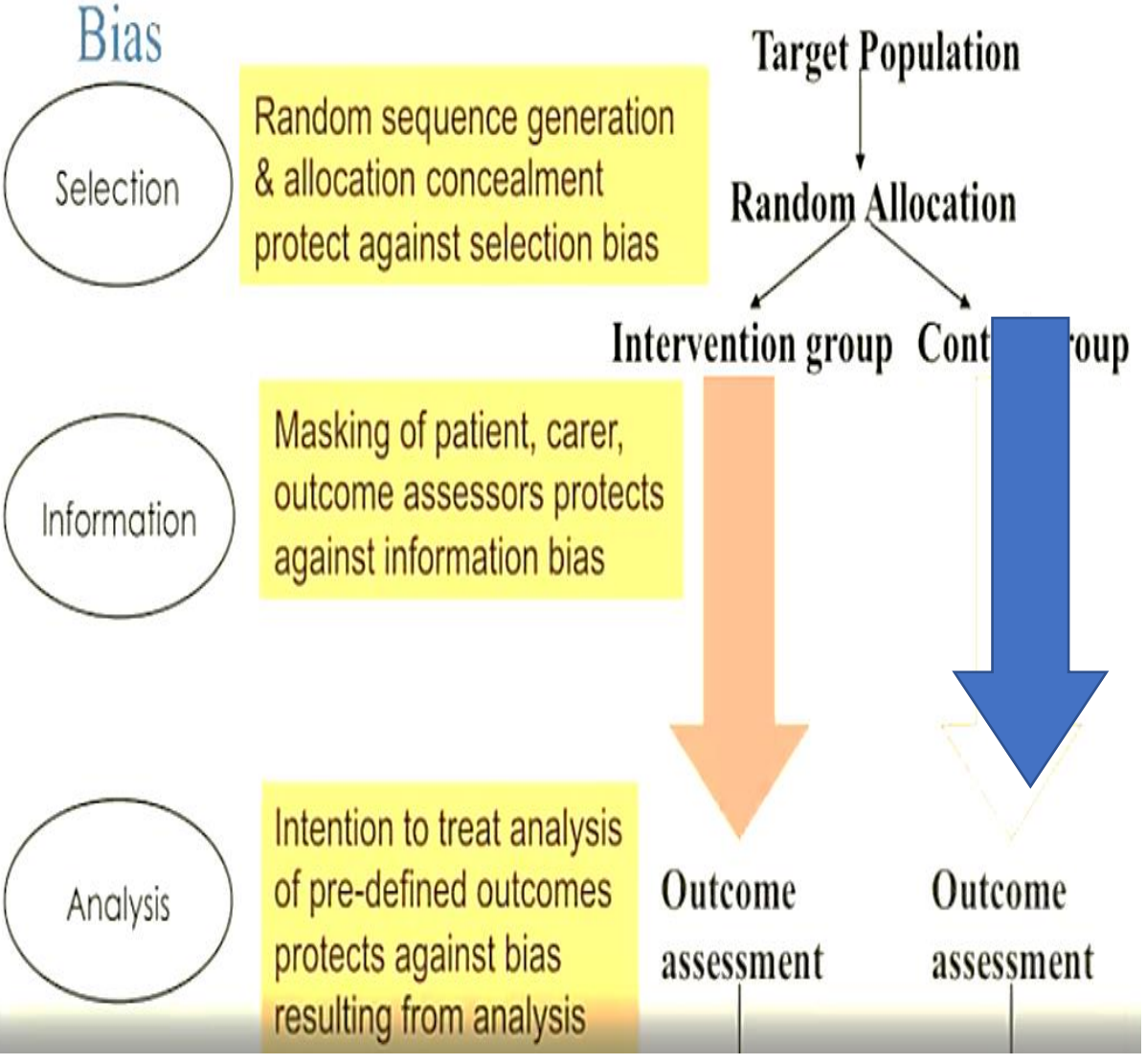
C-Comparison or control group

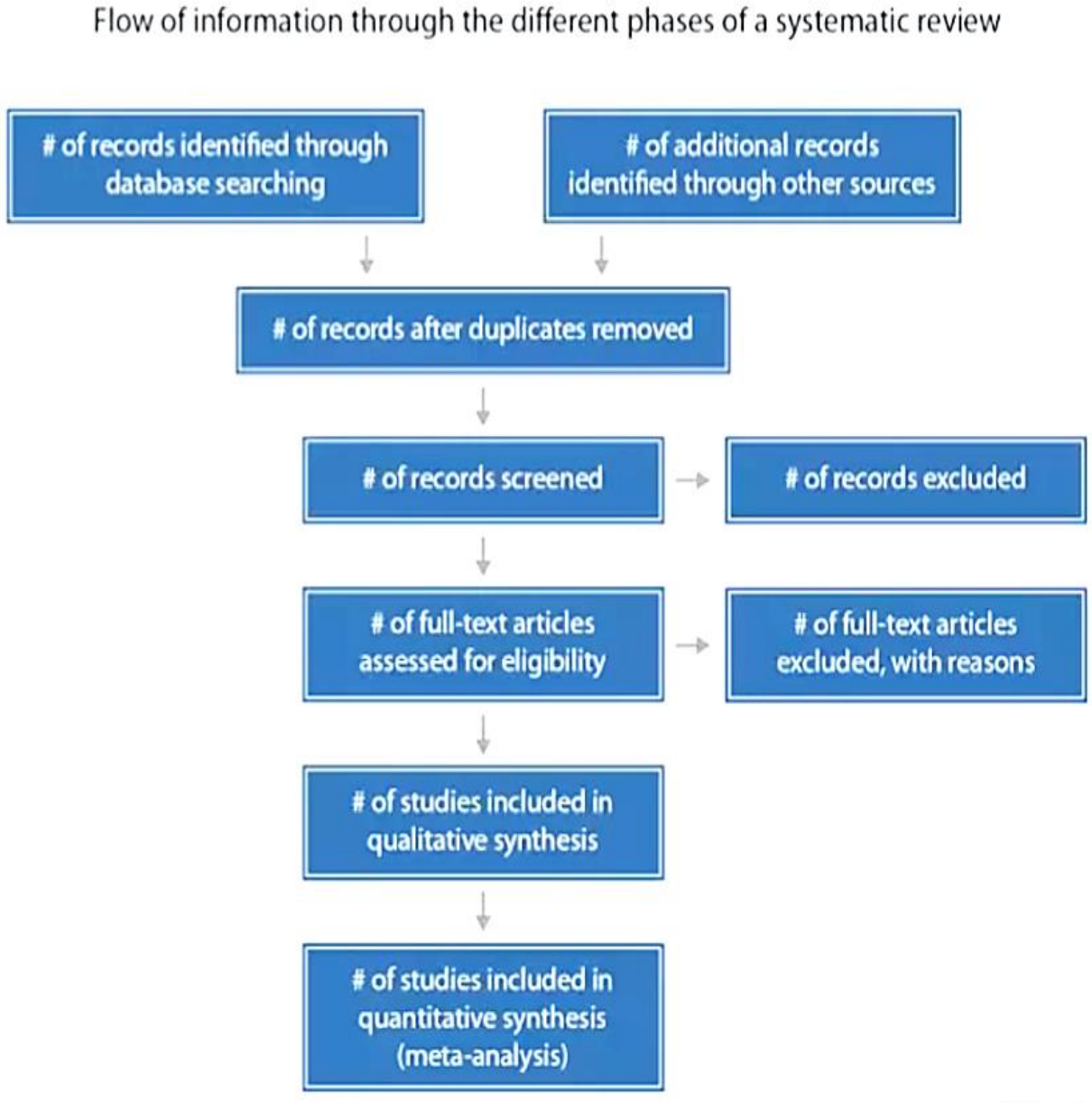
O-Outcome defining criteria

T-Timing or duration

S-Setting

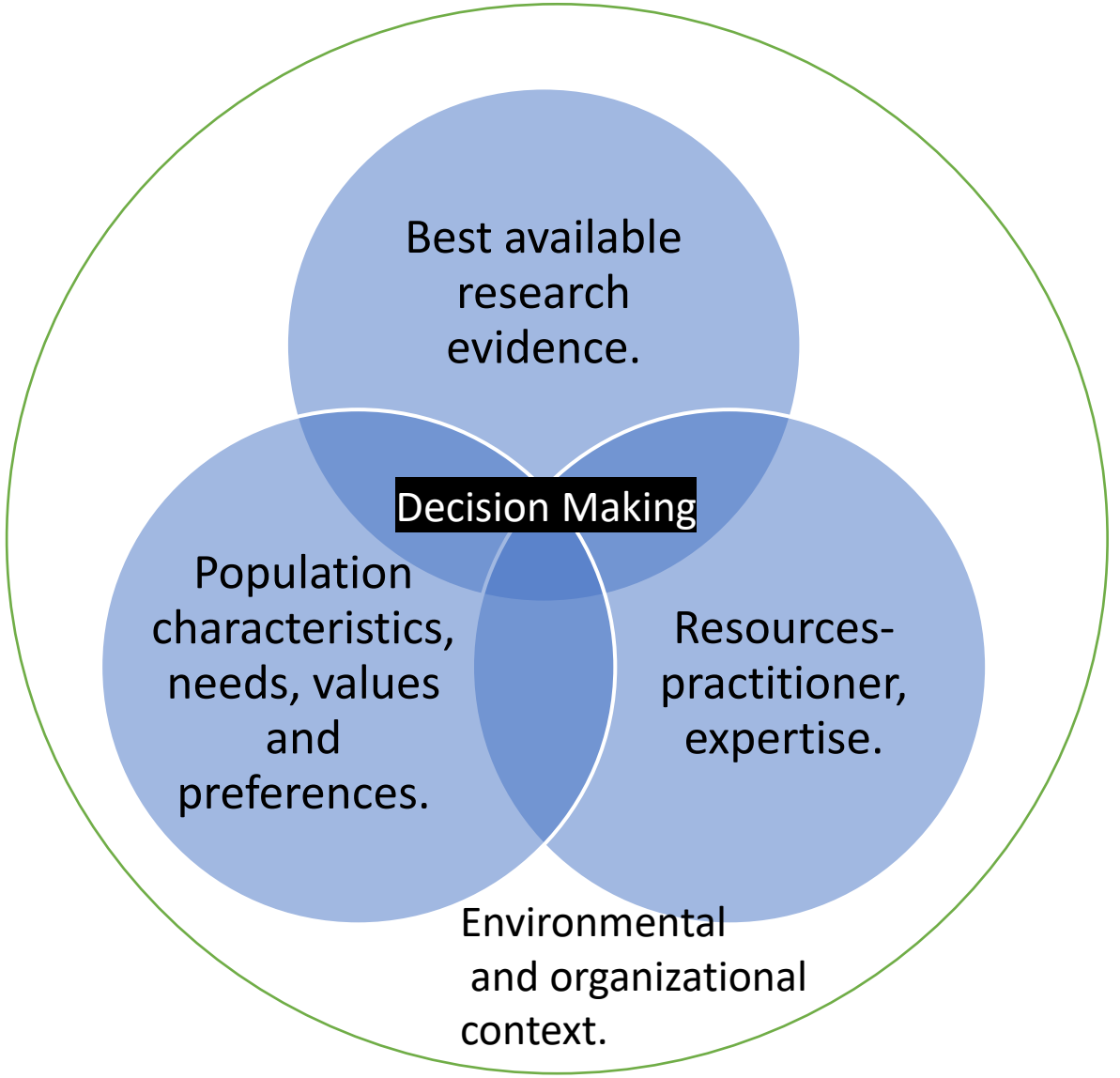
Sources of Bias and flow of information.



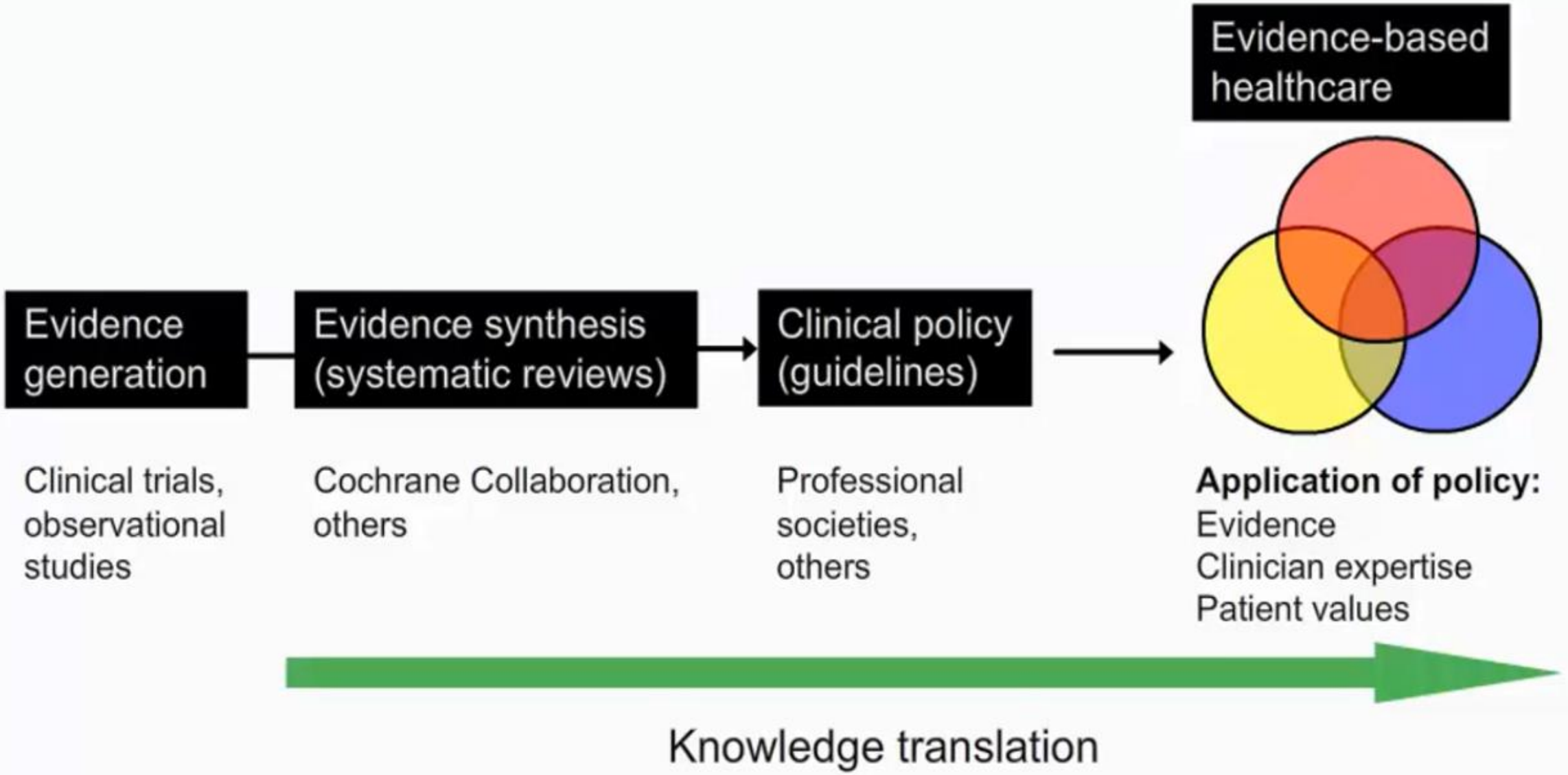


Public health implications.

- Systematic review is the highest level in the hierarchy of evidence for intervention study.
- Need of the hour to turn to evidence based policy, economics, healthcare and research.
- Engaging stakeholders and make the information accessible to them.
- A more efficient way for the evidence based needs assessment, capacity assessment and health assessment.



Knowledge Translation: from Clinical Research to Practice Decisions



Thank You