

Current Approaches to Using Evidence in Obesity Prevention and Related Areas of Health Promotion and Disease Prevention

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Obesity and Disease Prevention

**Efforts aimed at prevention
whether they are clinical,
public health or policy
interventions should be
evidence-based.**

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**Important questions
arise as one attempts
to implement this
process.**

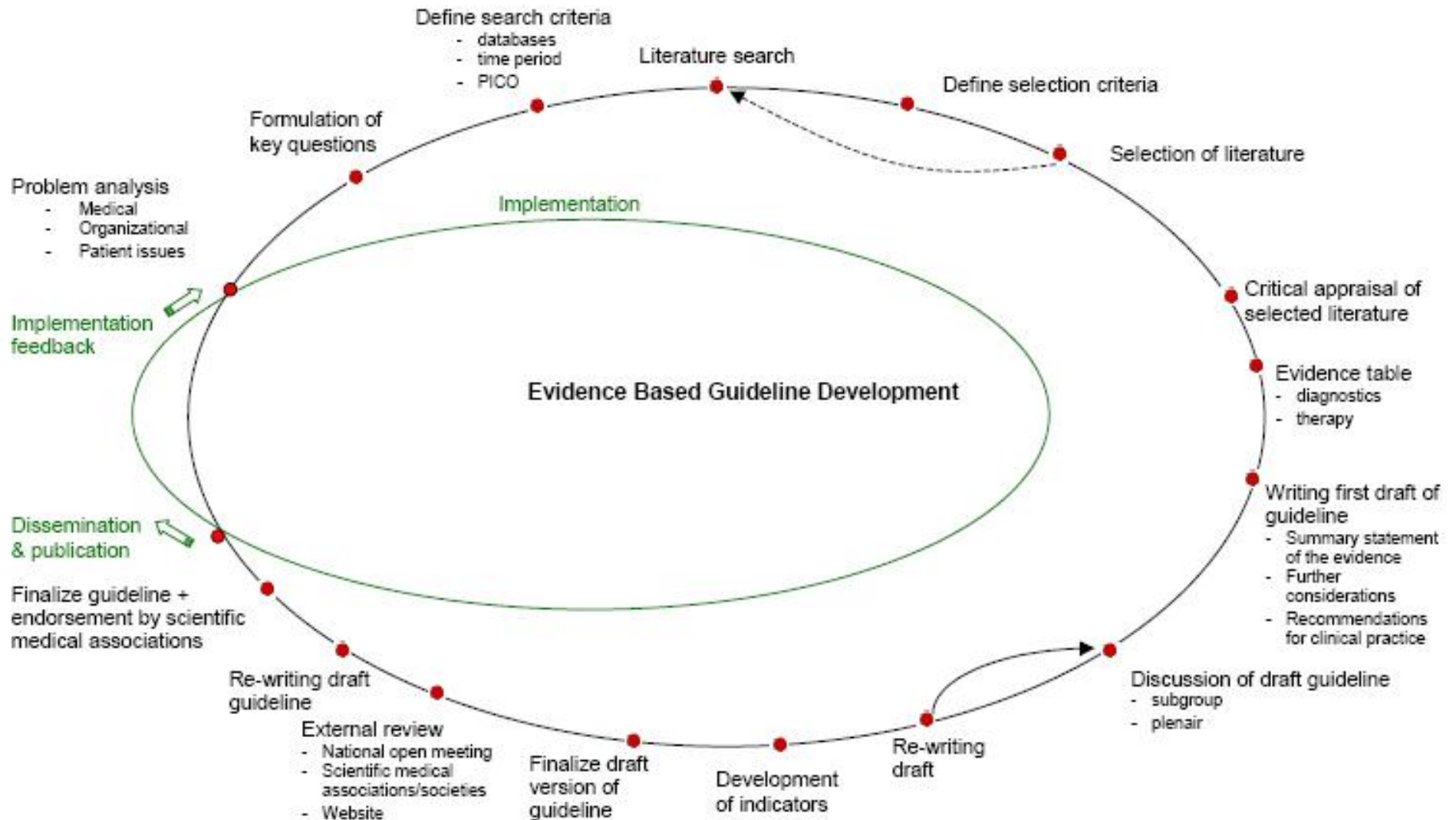
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- How much evidence is needed?
- How should an evidence review be conducted?
 - When should it be done?
 - How much does it cost?
 - Who should sponsor this review?
 - Who should do the review?
- How is evidence translated into guidelines?

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**It should be remembered the
evidence review and
guideline development is an
ongoing process.**

Guideline development cycle



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**A frequent problem is that the
approach to science
(and funding of science)
does not match the
evidence needed to
develop guidelines**

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The critical questions for an evidence review regarding a prevention program are frequently not anticipated by previous research.

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How high should the evidence bar be?

Some would argue that the evidence bar should be quite high before resources are invested in a prevention program.

The US Preventive Services Task Force employs such a high standard.

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What should be done in the absence of complete evidence?

What does insufficient evidence to recommend for or against routine screening (a USPSTF I recommendation) mean?

For clinical medicine?

For public health?

For policy?

For research?

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**How should pathophysiologic
evidence be judged?**

**How should “expert opinion”
be judged?**

Is evidence of efficacy sufficient?

Is evidence of effectiveness required?

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Some Real Life Examples

- **Screening and interventions for overweight in children and adolescents.**
 - **USPSTF – The USPSTF concludes that the evidence is insufficient to recommend for or against routine screening for overweight in children and adolescents to prevent adverse health outcomes (I recommendation).**

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Real Life Examples

The AMA Expert Panel recommends screening children and adolescents during routine health maintenance visits using BMI and basing further evaluation and treatment strategies on the BMI percentiles.

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**How do we resolve these
different conclusions?**

**“Profession organizations are called on by
members to provide specific and complete
recommendations for practice, which often
requires using expert consensus when
evidence is lacking.”**

Moyer and Nelson Pediatrics 2008;122:174

NHLBI Integrated Pediatric Cardiovascular Risk Reduction Guideline

- **Expert Panel Identified**
 - **Subcommittees developed to perform critical work tasks**
- **Independent Systematic Evidence Review**
- **Guideline Development**

Evidence Review

- Search of relevant databases (e.g. Pub Med, Cochrane)
- Identification of meta-analyses, reviews, RCTs, important observational studies
- Abstraction of key elements for panel review
- Expert panel review and grading (at least 2 members/paper)

Integrated Pediatric Cardiovascular Risk Reduction Guideline

Evidence Review

- 1. A classic evidence review deals with a single, finite question; the rigorous review process usually results in only a handful of articles for inclusion; only randomized controlled trials, systematic reviews and meta analyses published over a defined time period are included.**

Integrated Pediatric Cardiovascular Risk Reduction Guideline

Evidence Review

- 2. There is a predetermined format for abstraction of studies, grading of the evidence and presentation of results, independent of interpretation by the investigators.**

Integrated Pediatric Cardiovascular Risk Reduction Guideline

Evidence Review

3. By contrast, this evidence review must deal with many questions, each addressing multiple risk factors, over a time span extending from birth to 21 years of age.

Integrated Pediatric Cardiovascular Risk Reduction Guideline

Evidence Review

- 4. Because of this the evidence review will be extensive and the review process will be complex.**

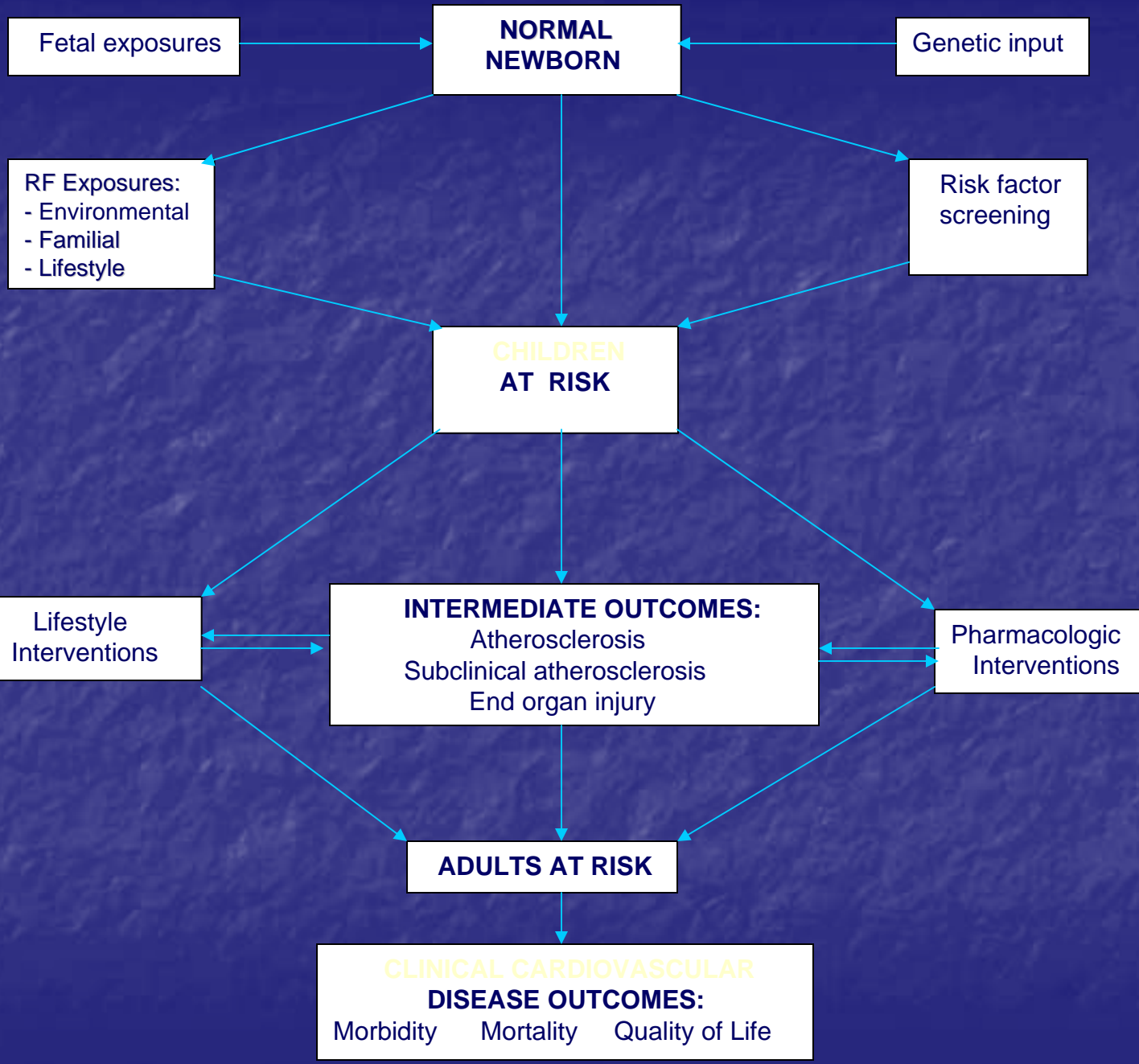


Table 5: Evidence Quality for Grades of Evidence

Grade	Evidence
A	Well-designed randomized, controlled trials or diagnostic studies performed on a population similar to the guideline's target population
B	Randomized, controlled trials or diagnostic studies with minor limitations; genetic natural history studies; overwhelmingly consistent evidence from observational studies
C	Observational studies (case-control and cohort design)
D	Expert opinion, case reports, or reasoning from first principles (bench research or animal studies)

Strength of Recommendation

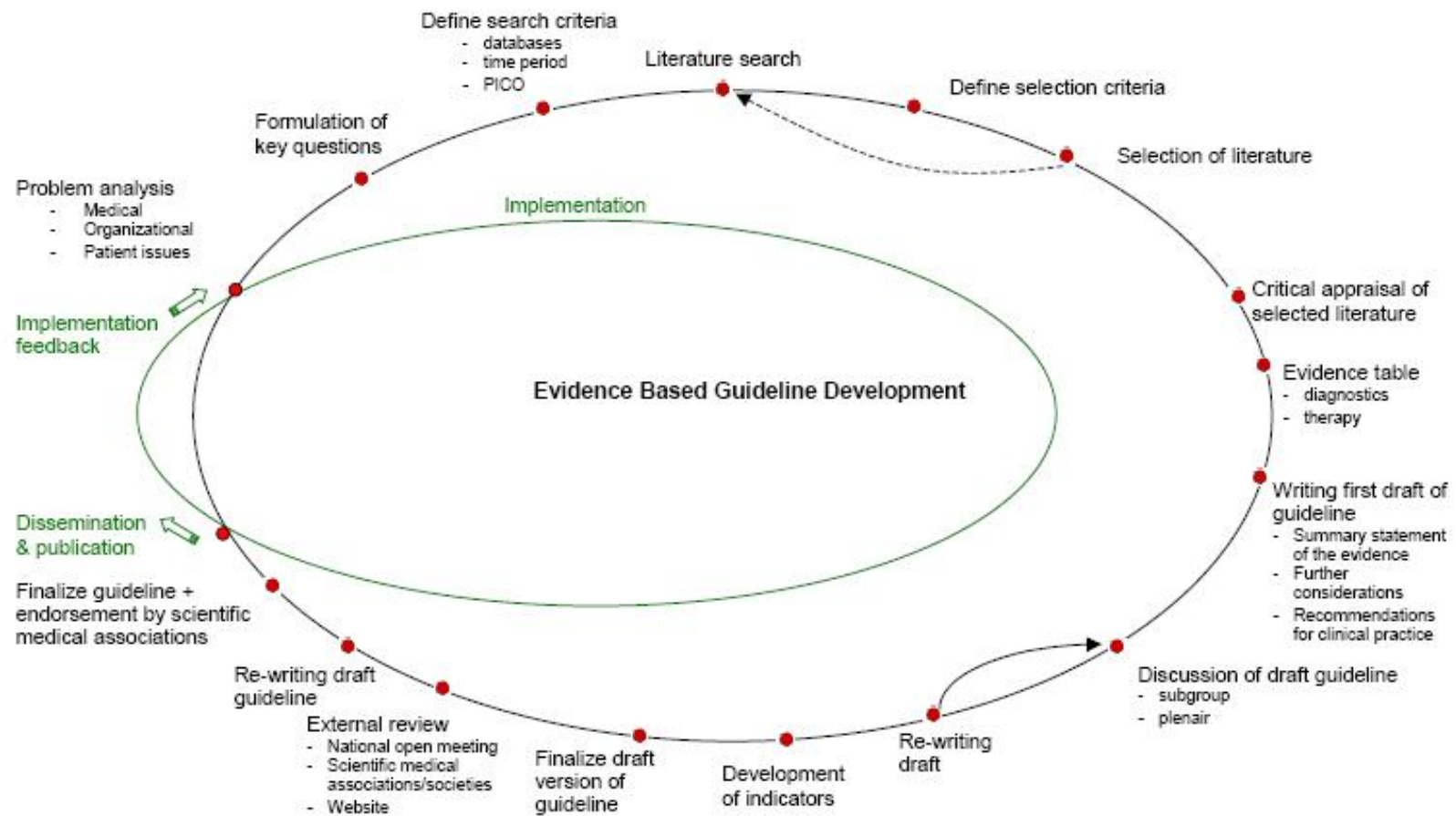
- Strongly recommended
- Recommended
- Optional

Strength is linked to evidence grade,
vote of the committee

An Integrated Guideline

- **Developmentally**
 - **Linked to AAP Bright Futures Concept**
 - **Age Specific recommendations**
- **Across risk factors**
 - **Lifestyle**
 - **Pharmacologic interventions**
 - **Complex/multiple risk settings**

Guideline development cycle



**Workshop on Meeting the Challenges
of Generating Useful Evidence and
Using it Effectively in Obesity
Prevention
Decision-making**

**500 Fifth Street, NW, Room 101
Washington DC**

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