

## APHA Proposed Policy Statement Submission Guidelines

Revised December 2022

*This document provides guidelines and instructions for authors of proposed policy statements. Authors must prepare proposed policy statements according to the specifications described in this document in order for proposals to be considered by the Joint Policy Committee (JPC).*

### Before submitting your proposal:

- ✓ Carefully read the [Policy Statement Development Process Policies and Procedures](#)
- ✓ Carefully read and follow the instructions in this document.

### When submitting your proposal:

- ✓ Complete and attach the (1) proposal submission checklist, (2) author disclosure forms (for each author), (3) sponsorship and endorsement letters (*if applicable*). All supporting documents must be provided at the time of submission to be considered in the review process.
- ✓ Submit the proposal by the deadline. Late proposals WILL NOT be accepted.

**IMPORTANT: Proposals that fail to follow these guidelines and are not accompanied by all required materials at the time of submission will not be accepted into the process and reviewed by the JPC.**

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## Overview

The policy statement development process is the mechanism by which the American Public Health Association (APHA) leverages member expertise to draft evidence-based and/or evidence-informed statements addressing issues of concern and importance to the public health community. The process is intended to develop policy statements on significant public health issues inclusive of action steps that should be taken by entities external to APHA. These adopted policy statements help to inform APHA's position on legislative, regulatory, scientific and health policy and practice issues related to public health and can be used by members to support policy priorities and actions across a variety of areas.

Policy statements must be consistent with APHA's goals, aims and objectives, be relevant to current or future public health issues, and avoid conflict of interest or the appearance of conflict of interest between the author's financial or other personal interests and the goals and policies of the Association.

Each proposed policy statement should represent either substantially new topic with externally directed action steps, or a major modification (revision or extension) of an existing policy statement. If the new proposal updates or supersedes an existing APHA policy statement, the new proposal should explicitly call for the archiving of the older existing policy statement. Policy statements should be comprehensive in nature and review the breadth of evidence-based strategies to address macro-level public health problems (e.g. public health preparedness for weather-related disasters), rather than focus on a single intervention or strategy for a niche issue (e.g. emergency response plans for hurricanes).

Policy statements should describe and endorse a defined course of action that could range from desired governmental legislation, regulations, and research, to calls for new science, policies and practices for non-governmental organizations and private enterprises.

So as not to date or limit the scope of the policy statement, the proposed statement should not include language with specific bill numbers, names, or presidential administrations. The policy statement can include references to existing time-limited plans, strategies, taskforces, etc.; however, that should not be the primary focus of the policy statement.

For more information on the policy statement development process, please refer to the official "Guidelines for Preparation, Submission, Review, Revision, Consideration, And Adoption Of Proposed Policy Statements."

## Policy Statement Proposal Submission Checklist

**I (primary author) \_\_\_\_\_ acknowledge that the proposal adheres to the guidelines. I understand that failure to include and comply with this list will prevent the proposal from being reviewed. By checking the following items, I acknowledge that the proposal as submitted:**

(Double-clicking on the box allows you to select a function to check the box)

- ☐ Is consistent with APHA's goals, aims and objectives.
- ☐ Addresses an identified gap for the current year or updates an existing policy statement(s) as recommended (if applicable).
- ☐ Does not mention specific bill numbers or names or presidential administration so as to not date the policy statement.
- ☐ Is not solely focused on an existing time-limited plan, strategy, taskforce or committee.
- ☐ Includes the author(s) disclosure statement(s) (see form). There is appropriate disclosure of conflict of interest between the author's financial or other personal interests and the goals and policies of the Association.
- ☐ Is authored and submitted by an APHA member.
- ☐ Includes a letter verifying APHA member unit leadership sponsorship/endorsement (if applicable: for proposals submitted on behalf of or supported by an APHA component).
- ☐ Lists the primary author(s) name, organization, address, email, phone, member number and APHA member unit.
- ☐ Lists collaborating member unit(s) that provided content/guidance to the policy statement proposal's development and their contact information (if applicable).
- ☐ Is written in "plain English" – and does NOT use clauses such as "therefore," "noting," "whereas," "recognizing," etc.
- ☐ Narrative text (from the Problem Statement through Action Steps) does not exceed 10 pages (1.5 spaced).
- ☐ Includes 50 or fewer references; statements with more than 50 references upon initial submission will not be reviewed.
- ☐ Each in-text citation number aligns correctly with the document listed in the numbered Reference list.

Includes and clearly labels the following components in the following order:

- ☐Title
- ☐Summary (Does not include any References)
- ☐Relationship to Existing Policy Statements
- ☐Rationale for Consideration (Does not include any References)
- ☐Problem Statement
- ☐Evidence Based Strategies to Address the Problem
- ☐Opposing Arguments/Evidence
- ☐Alternative Strategies (Optional)
- ☐Action Steps
- ☐References

## Format Guidelines

Proposed policy statements should identify a public health problem and present an objective summary of the problem. Proposals should be concise, and accurately and effectively use references to justify the call for defined action by entities external to APHA. The recommended format for proposed policy statements is relatively simple, and should facilitate clear and succinct expression. Proposals cannot exceed 10 pages (1.5 line spacing) in narrative text length or include more than 50 references and should use Times New Roman, Size 11 font.

**Proposed policy statements that fail to include each of the sections below will NOT be reviewed by the Joint Policy Committee.**

**I. Title:** The title should accurately and succinctly state the public health issue and the type of strategy the policy statement addresses (For example “Support for National Nutrition Monitoring”). The title should not cite a specific piece of legislation or administration.

**II. Author identification** (If multiple authors, please list the primary contact first):

- a. Name
- b. Organization
- c. Address
- d. Phone Number
- e. Email
- f. APHA member number
- g. APHA member unit affiliation (e.g. Section/SPIG/Caucus/Forum/Student Assembly/Affiliate)

**III. Sponsorship/co-sponsorship:** Indicate whether the proposed policy statement was submitted on behalf of an APHA member unit. A signed letter from leadership indicating sponsorship/co-sponsorship should accompany proposal submission (see template in Appendix A). . If there is no sponsor, the author(s) should type “N/A”.

**Proposals that do NOT include the sponsorship letter will be considered to be submitted by the individual listed as the primary author.**

**IV. Collaborating Units:** The author(s) must include a listing of other individual member(s) or unit(s) that collaborated on the development of the proposed policy statement either by providing content information, review and/or guidance in its development. The contact information for those collaborators should be provided. If no collaboration occurred, the author(s) should type “N/A”.

**V. Endorsement:** Indicate any APHA member unit that has reviewed and is in support of the proposal. A signed letter from leadership indicating endorsement should accompany proposal submission (see template in Appendix B). \*Endorsements can be obtained at any point in the policy statement developments process. Many Member Units do not endorse proposed policy statements until later in the development process. If there are no endorsements, the author(s) should type “N/A”.

**Each of the following should be labeled sections in the proposal:**

**VI. Summary:** In 250 words or less, summarize the problem statement and recommendations contained in the proposed policy statement (Note: This section should NOT contain any references). Identify key words related to the proposed policy statement (max 5)

**Relationship to existing APHA policy statements:** In this section authors should identify, and list by name and number all existing active (i.e. not archived) APHA policy statements that relate to this public health problem. To view existing APHA policy statements, please see APHA's policy statement database. Authors should explicitly state if there are no existing APHA policy statements related to the public health problem to be addressed by the proposed policy statement. The intent of this section is to allow readers to find and review additional statements on the topic or related matters.

**VII. Rationale for consideration.** Authors must address whether the proposed policy statement:

- a. Updates and replaces an existing (active or archived) APHA policy statement. Authors should explicitly state whether the proposed policy statement intends to update and replace an existing policy statement. Authors should list the policy statement numbers of the existing APHA policy statement. **Authors should summarize the changes/additions and indicate the purpose of the update. Please specify if the policy statement being updated is scheduled for archiving in two years or less.**
- b. Addresses a policy statement gap identified by JPC and APHA staff for the current year. Authors should list the policy statement gap indicated for the current year and discuss how the proposed policy statement addresses the policy statement gap; or
- c. Addresses a public health issue NOT identified by APHA staff as a policy statement gap for the current year. Authors should explain why APHA should adopt the proposed policy statement on the public health issue.

Note: All sections above are for internal review purposes only and will be removed from the policy statement if adopted. The 10-page (1.5 line spacing) limit begins with the problem statement section below and ends where the reference list begins.

**VIII. Problem Statement:** This should succinctly describe the public health problem(s). In developing the problem statement, authors should address the following:

- a. Scientific Issues: Proposed policy statements must:
  - i. Describe the extent of the problem, including the health and economic burden to the society, using the best available science and evidence.
  - ii. State the scientific issue clearly. Use plain English; avoid jargon.
  - iii. Document the issue as a public health problem, using a scientific evidence.
  - iv. Describe any disproportionate impact on underserved populations, and ethical, equitable, economic and political issues if any.

- v. Provide evidence that indicates that the problem is consistent with or advances the state of science.
- vi. Describe any ethical, equitable, economic and political issues (when appropriate).

**IX. Evidence-based Strategies to Address the Problem:** Document what interventions and strategy(ies) is/are being proposed to address the public health problem. The interventions and strategy(ies) presented should be based on the problem statement and review of the literature. Evidence of the effectiveness of strategies include 1) education of the specific organizations or groups 2) laws, policies or regulations directed to a legislative or administrative body (e.g., requiring paid leave), 3) support for further scientific research (e.g., relationship of childhood lead poisoning to criminal behavior), 4) response to an existing problem (e.g., flu shots recommended or required for all health care workers), and 6) requiring remediation (e.g., to an environmental contamination). For each strategy,

- a. describe the scientific evidence that the strategy is likely to have an impact on addressing the problem or is effective and efficient (cost benefit or cost effective)?
- b. explain or estimate the size/extent of the impact. Refer to scientific or other authoritative evidence for effectiveness of the strategy.

Remember to continue the reference numbering sequence started in the problem statement and provide the full citation in the reference section below.

**X. Opposing Arguments/Evidence:** Identify opposing evidence or alternative points of view to the proposed policy statement. For example, opposing views about the existence and extent of the problem; the validity of the evidence and ethical, equitable and legal issues when appropriate. Clearly address why each identified opposing argument/evidence is not valid (either in general or in regard to the policy proposal) referencing scientific or other authoritative evidence.

**XI. Alternative Strategies (optional):** What alternative strategies have been tried or proposed to address the public health problem? Who carries out the strategies and what do they do? Give at least one reference to scientific or authoritative evidence that promotes or documents these strategies and provide the full citation below in the reference section. Justify the interventions/strategies proposed above in Evidence Based Strategies to Address the Problem in relation to these alternative strategies (e.g. more cost effective, greater reach, better equipped to address inequity, etc.). Please indicate if there are alternative strategies to your knowledge.

**XII. Action Steps:** Provide a number list of action steps related to each of the recommended evidence-based strategies listed in section IX above. [There should be no references in this section; the evidence or rationale for the Action Steps should be provided in other sections of the proposed policy statement.]

Each Action Step must be directed at an entity(ies) external to APHA. (Action Steps are not directed at APHA.) Each Action Step should succinctly state what the external entity(ies) should do to promote or implement the Evidence-based Strategies described.

The focus of the Action Steps should be on policy/principle, and not on specific legislation/regulation. All actions MUST be EXTERNALLY directed to entities other than APHA, i.e. APHA calls on X entity to do Y. Action steps should be feasible, ethical and equitable to undertake. They should also be culturally and linguistically appropriate to any affected populations. Authors should consider any unintended consequences of the Action Steps.



**XIII. References (peer-reviewed, primary sources, most recently available):** Authors should provide appropriate references to scientific or other authoritative evidence in Sections VIII, IX, X, XI. Include the best available references that support the text (e.g., relevant peer reviewed literature, government documents, evidence-informed reports.)

a. Do NOT use automatic referencing (i.e. Endnotes). Each reference should be individually numbered and manually entered. Number each new reference the first time it appears; use that number to refer to the reference every time it is cited in the proposed policy statement.

b. Provide the full citation for each numbered reference cited in the text of the proposed policy statement. The format to use for citations is that of the American Medical Association; guidelines found on page 8, but please also add in page number(s) where evidence is found in the reference.

c. Provide links to full-text of articles online (when available).

d. Double-check that each in-text number aligns correctly with the numbered Reference.

**References Format Guide**  
(Based on AMA Reference Style)

**Book**

1. Okuda M, Okuda D. *Star Trek Chronology: The History of the Future*. New York: Pocket Books; 1993.

**Journal or Magazine Article (with volume numbers)**

2. Wilcox RV. Shifting roles and synthetic women in Star trek: the next generation. *Stud Pop Culture*. 1991;13:53-65.

**Newspaper, Magazine or Journal Article (without volume numbers)**

3. Di Rado A. Trekking through college: classes explore modern society using the world of Star trek. *Los Angeles Times*. March 15, 1995:A3.

**Encyclopedia Article**

4. Sturgeon T. Science fiction. In: Lorimer LT, editorial director; Cummings C, ed-in-chief; Leish KW, managing ed. *The Encyclopedia Americana*. Vol 24. International ed. Danbury, Conn: Grolier Incorporated; 1995:390-392.

**Book Article or Chapter**

5. James NE. Two sides of paradise: the Eden myth according to Kirk and Spock. In: Palumbo D, ed. *Spectrum of the Fantastic*. Westport, Conn: Greenwood; 1988:219-223.

**ERIC Document**

6. Fuss-Reineck M. *Sibling Communication in Star Trek: The Next Generation: Conflicts Between Brothers*. Miami, Fla: Annual Meeting of the Speech Communication Association; 1993. ERIC Document Reproduction Service ED364932.

**Web site**

7. National Institutes of Health. NIH guidelines on the inclusion of women and minorities as subjects in clinical research. Available at: <http://grants.nih.gov/grants/guide/notice-files/not94-100.html>. Accessed on July 19, 2000.
8. Lynch T. DSN trials and tribble-ations review. Psi Phi: Bradley's Science Fiction Club Web site. 1996. Available at: <http://www.bradley.edu/campusorg/psiphi/DS9/ep/503r.htm>. Accessed October 8, 1997.

**Journal Article on the Internet**

9. McCoy LH. Respiratory changes in Vulcans during pon farr. *J Extr Med* [serial online]. 1999;47:237-247. Available at: [http://infotrac.galegroup.com/itweb/nysl\\_li\\_liu](http://infotrac.galegroup.com/itweb/nysl_li_liu). Accessed April 7, 1999.

**Government/Organization Reports:**

10. US Bureau of the Census. *Statistical Abstract of the United States: 1999*. 119th ed. Washington, DC: US Bureau of the Census; 1999.

## Proposed Policy Statement Evaluation Criteria

All proposed policy statements submitted are evaluated on the following criteria:

- I. Format: Is the proposal in the correct format, as outlined in the format guidelines? Are all the required sections included and labeled?
- II. Title: Does the title accurately reflect the problem statement, recommendations and/or action steps?
- III. Relationship to existing APHA policy statements:
  - a. Is there an existing APHA policy statement that covers this issue?
  - b. What is the relationship to existing or archived APHA policy statements?
  - c. Does the proposal update the science of an older policy statement?
- IV. Rationale for consideration.
  - a. Does the author adequately describes the relevance and necessity of the proposed policy statement?
  - b. Does the proposed policy statement address a policy statement gap or requested update?
  - c. If the proposed policy statement updates an existing statement, is the rationale for the update well supported?
- V. Problem Statement. Does the problem statement adequately describe the extent of the problem?
  - a. Does description of problem include the best available scientific evidence?
  - b. Are there important facts missing?
  - c. Does that proposed problem statement describe any disproportionate impact on underserved populations?
  - d. Does the proposed problem statement describe any relevant ethical, equitable, economic and political issues?
- VI. Evidence-based Strategies. Does the proposal describe what interventions and strategies are being proposed to address the public health problem?
  - a. Are the proposed strategies evidence-based?
  - b. Does the proposal provide reference(s) or scientific evidence regarding the effectiveness of each listed strategy? Does the proposal include scientific evidence that the proposed strategies are likely to have an impact on addressing the problem and describe the potential impact the strategies are likely to have?
  - c. Are the proposed strategies ethical, equitable and reasonable?
  - d. What other strategies should be considered?
- VII. Opposing Arguments/Evidence. Does the proposal include opposing and/or alternative points of view to the proposal?
  - a. Does the proposal adequately refute the opposing viewpoints?
  - b. What are the strengths and weaknesses of the evidence presented to refute the opposing viewpoint? Is there important evidence missing (i.e., Is this the best available literature and references)?
  - c. Are any opposing views missing?
- VIII. Alternative Strategies (if included): Does the proposal:
  - a. Document evidence on what alternative strategies have been tried or proposed to address the public health problem?
  - b. Explain who carries out the strategies and what do they do?
  - c. Justify the interventions/strategies proposed above in Evidence Based Strategies to Address the Problem in relation to these alternative strategies (e.g. more cost effective, greater reach, better equipped to address inequity, etc.)
- IX. Action Steps: Are the action steps:
  - a. Externally-directed (i.e. directs an external entity, NOT APHA, to promote or implement a specific strategy)?
  - b. Focused on policy/principle and not on specific legislation/regulation?

- c. Supported by the best available evidence or rationale documented in the proposal?
  - d. Evidence-based, feasible, ethical and equitable, and directly tied to the evidence-based strategies listed earlier in the policy?
  - e. Culturally responsive to the under-represented and underserved populations being addressed (if appropriate)?
- X. References: Does the proposal:
- a. Include references that are connected to the text?
  - b. Include references from peer-reviewed, up-to-date and best available primary sources?
  - c. Provide the full citation for each numbered reference cited in proposal and follow the recommended AMA format with the addition of the page number(s) where evidence is found in the reference?
  - d. Include references that are individually numbered and manually entered? The proposal should also number each new reference the first time it appears, use that number to refer to the reference every time it is cited in the proposed policy statement.
  - e. Ensure each reference actually includes the information, data, or statement asserted in the proposed policy (i.e., the reference number in the text matches up with the proper citation number in the Reference list.)

## Appendix A: Sponsoring/Co-sponsoring Component Template Letter

*Note: to be considered in the review process, this letter must be completed by the Member Unit Chair/President and submitted by the primary author with the proposal.*

Date: \_\_\_\_\_

Chair: \_\_\_\_\_

APHA Component: \_\_\_\_\_

Email: \_\_\_\_\_

To the Joint Policy Committee:

This letter serves as confirmation that proposed policy statement (title):

\_\_\_\_\_ was submitted by \_\_\_\_\_ on behalf of the  
(Sponsoring Component) \_\_\_\_\_

Signed,

\_\_\_\_\_

Chair, \_\_\_\_\_



## Appendix B: Endorsing Component Template Letter

*Note: to be considered in the review process, this letter must be completed by the Member Unit Chair/President and submitted by the primary author with the proposal.*

Date: \_\_\_\_\_

Chair: \_\_\_\_\_

APHA Component: \_\_\_\_\_

Email: \_\_\_\_\_

To the Joint Policy Committee:

With this letter I acknowledge that the component has reviewed and endorses proposal (title)

\_\_\_\_\_.

Signed,



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Chair, 

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## **Appendix C: Types of Evidence Framework**

Report to the Governing Council of the American Public Health Association (APHA)

A Framework for the Assessment and Incorporation of Evidence in Public Health Policy Development and Review (2013)

APHA Evidence Based Policy Working Group\*

### **PREFACE**

The purpose of this document is not to prescribe what the author of a policy or the reviewer of a policy must do; rather, it is intended to promote discussion and thought by authors and reviewers. In summary, we recognize that there is no universal best available evidence for a solution for a public health problem. Indeed, the specifics of each public health problem and recommended actions define, by necessity, the parameters of the evidence to be considered.

### **Introduction**

#### **Rationale and Purpose**

The APHA is committed to promoting the scientific foundation of public health intervention and health policy and to promoting global health equity. This requires that the APHA develop policies that are aimed toward improving health and health equity, and that are solidly based on the best available evidence.

A clear definition of what constitutes meaningful and valid evidence required for public health intervention and health policy development is often difficult to achieve. In some cases, while there may be no disagreement about the extent and nature of the public health problem, there may be little evidence that a given policy or intervention may actually be successful. In other cases (e.g. international conflict or certain types of environmental pollution), the extent and nature of the threat to public health itself may be the subject of disagreement and the issue of evidence the purported source of contention.

While the importance of “best available evidence” cannot be understated, it should nonetheless be acknowledged that the decision to address or identify a health state in a given population as a problem in need of a solution itself involves an evaluative judgment. In previous policy statements and white papers, APHA has distinguished itself among professional societies by its commitment to health equality and social justice—including the elimination of health disparities and policies which increase environmental justice.

Thus, there is a natural tension between the “best available evidence” and the sense of immediacy to address health equality and social justice issues. The purpose of this document is to provide a coherent framework for developing and reviewing policy statements within APHA that considers both evidentiary and value frameworks. In doing so, we will address the following three questions: 1) what constitutes evidence? 2) What is the role of evidence in policy development? And 3) how should we consider evidence and values frameworks in the development and review of policy proposals?

## What constitutes evidence?

### Definitions

Evidence has been defined as “the available body of facts or information indicating whether a belief or proposition is true or valid” (Jewel and Abate, 2001). However, not all beliefs are about “facts”, e.g., our moral beliefs reflect value judgments, and propositions can refer to values and norms as well as facts. Evidence is not to be seen as the equivalent of proof. For the purpose of this paper, we are defining **evidence** as any observation that raises the probability that a given factual statement is true. Thus, evidence is always considered with regard to a given factual statement, where a factual statement is an assertion of a claim about “facts” (as opposed to values or norms).

The following are examples of three different types of factual statements relevant to a public health action or policy:

- *Associative: Agent A is associated with outcome B*
- *Causative: Agent A causes outcome B*
- *Proxy: Agent A (e.g., case rate for malaria) approximates B (incidence of malaria) when direct observation or estimation of A is not possible*

A public health action or policy recommendation should take into account the best available evidence for all relevant factual statements, including the existence and nature of a given health problem and the likely outcomes of a proposed policy or intervention. However, note that evidence for the existence of a given health problem is not the same as evidence that a proposed intervention will fix the problem.

Table 1 provides a summary look at the types of evidence employed by the various academic disciplines in no order of hierarchical importance.

**Table 1. Types of Evidence**

Type of Evidence	Characteristics
<b>Empirical</b>	Derived from experience that results from observation and experiment (as opposed to theory). Very heavily used in the sciences, empirical evidence is also relied upon in the humanities and social sciences.
<b>Experimental</b>	An experiment is typically used to test a hypothesis or theory. Replication of the results is the standard test of validity. Experimentation is a form of empirical evidence and is very prominent in sciences.
<b>Authoritative</b>	A common way of supporting a claim is to cite an authority's views or estimate of the problem.
<b>Statistical</b>	A primary tool for those in the natural and social sciences. It is important not to take statistics at face value, but to critically evaluate the appropriateness of the statistical test and the relevance of the finding.

<b>Textual</b>	Although most forms of evidence are typically textual (words on a page, images, video footage, etc.), here we are referring to instances where the "language" itself is fundamentally important, i.e., parts of the text must be explained and argued for. This type of evidence is frequently used in literary studies, but also in law, media studies and other fields.
<b>Media</b>	Newspaper, television, internet accounts by established news media personnel and posts by individuals.

Adapted from Source: <https://sites.google.com/a/colgate.edu/getting-started/doing-good-research/types-of-evidence>

A public health action or policy recommendation, by its nature, is developed within the context of an acknowledged or underlying value framework. The following are examples of recommended policy actions and the implicit values or assumptions underlying them:

*"Congress must regulate agent A in order to reduce levels in the environment in order to prevent cases of disease B among population X."*

Implicit values or assumptions:

- Prevention of disease B in population X is important. *Value judgement.*
- Congressional regulation will indeed reduce exposure to agent A. *Factual claim—requires evidence*
- Prevention of disease B is more important than treatment of the disease. *Value judgement*

*"More funding for research on disease X is needed."*

Implicit values/assumptions:

- Having disease X is a problem. *Value judgement*
- The amount of research dollars spent necessarily translates into quality research. *Factual claim—requires evidence*

### **Hierarchical Evidence Typologies**

For statements that can be tested by experimental means, Table 2 provides a single example of the many evidence hierarchies ordered from the 'strongest' evidence (category I) to the 'weakest' evidence (category III). *The use of this example should not be construed as suggesting it is the best hierarchy for all situations.*

**Table 2. Example of an Evidence Hierarchy**

<i>Levels of Evidence</i>	<i>Example</i>
Category I:	Evidence from multiple converging randomized controlled trials. Evidence from systematic reviews of multiple controlled trials.
Category II-a:	Evidence from at least one or more properly randomized controlled trial Converging evidence from more than one well-designed controlled trials without randomization
Category II-b:	Converging evidence from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.
Category II-c:	Evidence from multiple times series with or without intervention or dramatic results in uncontrolled experiments such as the results of the introduction of penicillin treatment in 1940 during WWII.
Category III:	Opinions of respected authorities, based on clinical experience, descriptive studies and case reports, or reports of expert committees. Converging evidence from numerous qualitative data sets yielding expert opinions or general acceptance of the postulate

Source: Harris, R.P. et al. (2001)

**However, the best available evidence is defined in accordance with a given statement.** Thus, for some statements, qualitative data may be most relevant. For example, the results of a focus group with refugees of war could provide more specifics in support of a statement on the horrors of war. For other statements, quantitative data, higher in the hierarchy, is relevant. Evidence hierarchies can be misleading, however, because they are not crafted with the specific statement under consideration. We cannot know *a priori* which type of evidence is stronger unless we know what question that evidence is being used to answer. The appropriateness of a given evidence hierarchy should be considered by the author and reviewer of each policy statement. The use of an existing framework (as shown in Table 2) may not be relevant to a given statement under consideration.

### **Rigorous peer review; a mechanism to evaluate supportive evidence**

Academic journals are generally regarded as the *sine qua non* for evidence-based information provided the journal is reputable, scholarly, and relevant to the policy at hand. Ideally, published articles are reviewed by knowledgeable peers who evaluate the paper with respect to whether the methodology is appropriate to the research question, the sample size—if relevant—is adequate, choice of statistical methods (if relevant) is appropriate and results accurately interpreted, and the conclusions are warranted.

Within peer reviewed journals there is publication bias,( e.g., negative findings are often not published) that is not insignificant and should be considered. For example, Melander et al. (2003) found systematic bias in the academic literature on selective serotonin reuptake inhibitors (SSRIs) through multiple publication, selective publication, and selective reporting in studies funded by the pharmaceutical

industry. Further, peer reviewed studies are not about establishing certainty or even minimizing uncertainty, all are subject to limitations, a natural part of the scientific enterprise.

On-line and open access journals are relatively new vehicles for publishing scholarly work. The quality of the peer review process varies. Attention to the journals' quality and reputation, including impact factors, can be an additional guide in evaluating evidence cited.

### **Validated Evidence in Other Arenas**

In some cases, peer reviewed studies may not be available when the matter is too current or the possibility of conducting a study for peer review remote, yet where there may be good evidence. For example, a policy proposed for 2013 speaks to solitary confinement in the prison system. The nature of the issue itself creates challenges for research---e.g., gaining access to a protected population, and complex ethical concerns. There are, as a result, limited peer review studies. Nevertheless, evidence in relation to effects on the prison population is available through media reports, legal testimony and focus groups.

### **Systematic Review Panels**

In addition to looking at individual articles of reports on a subject, various disciplines have created or support organizations, panels and other vehicles to assess the credibility and quality of evidence that is available. Evidence for a given statement may have been previously reviewed and weighted using a pre- defined method with a predetermined set of necessary scientific expertise. Several organizations, including the Institute of Medicine (IOM), the Agency for Research on Cancer (IARC), PRISMA ([www.prisma-statement.org](http://www.prisma-statement.org)), The Cochrane Collaboration ([www.cochrane.org](http://www.cochrane.org)), and others have established methods for identifying a panel of experts and conducting a thorough systematic review.

For example, the *Cochrane Handbook for Systematic Reviews of Interventions* defines Systematic Reviews as the following:

- Systematic reviews seek to collate all evidence that fits pre-specified eligibility criteria in order to address a specific research question.
- Systematic reviews aim to minimize bias by using explicit, systematic methods.
- The Cochrane Collaboration prepares, maintains and promotes systematic reviews to inform healthcare decisions (Cochrane reviews).
- Cochrane reviews are published in the *Cochrane Database of Systematic Reviews* in *The Cochrane Library*.
- The *Cochrane Handbook for Systematic Reviews of Interventions* contains methodological guidance for the preparation and maintenance of Cochrane Intervention reviews and Cochrane Overviews of reviews.

In contrast to clinical decision making or the design of behavioral interventions, where there may be several randomized trials that provide evidence for the efficacy of a particular intervention, public health policy statements may often be proposed within the context of a relative lack of information regarding how the proposed intervention may actually result in a desired outcome or the value of one intervention relative to another possible intervention. In some cases, this is because the tightly controlled

experimental conditions defined by prespecified inclusion and exclusion criteria that are used in clinical trials are rarely available for studying public health interventions or problems, which take place in “real-world” settings in which researchers have much less control of confounding variables. In other cases, this is due to the unethical nature of certain public health experiments. A policy statement recommending the reduction of maternal exposure to coal fired power emissions could not be expected to identify evidence from a randomized trial of mothers who were exposed/unexposed to coal fired power plants during pregnancy as such data could not be ethically obtained. In some cases it is simply impossible to conduct large-scale, multifaceted public health research due to “feasibility, cost, and political acceptability.” (Carter et al 2011) In these cases corollary supporting evidence, related evidence from similar research, or expert opinion may be the best evidence available – and as such should be given appropriate consideration.

Furthermore, not every issue (statement) of concern to APHA may have been the subject of a review and possibly not published in a peer reviewed journal. For example, health issues in the context of human rights abuses, the plight of refugees, and casualties of war may not be easily studied nor the subject of a formal study and peer reviewed article. Nonscientific data sources may be textual, contextual, observational, accepted expert opinions, or derived from other similar evidence sources. In this case those sources may be the best, and in some cases the only, data or evidence available. Under these circumstances, convergence of the various data sources is critical for supporting the statements or proposed policies, i.e., what is cited should converge, or triangulate, towards the same conclusions. If such a body of evidence doesn’t converge, if it diverges, or if there is equivocation there is little evidence to support the policy, its purpose, or proposed outcomes.

The International Agency for Research on Cancer (IARC) working groups assess evidence relating to carcinogenicity and publish their evaluations in a Monograph. The IARC notes, in a Preamble to its Monograph, the context for its reviews and other factors at play in the making of public health decisions:

*“The Monographs are used by national and international authorities to make risk assessments, formulate decisions concerning preventive measures, provide effective cancer control programmes and decide among alternative options for public health decisions. The evaluations of IARC Working Groups are scientific, qualitative judgements on the evidence for or against carcinogenicity provided by the available data. These evaluations represent only one part of the body of information on which public health decisions may be based. Public health options vary from one situation to another and from country to country and relate to many factors, including different socioeconomic and national priorities. Therefore, no recommendation is given with regard to regulation or legislation, which is the responsibility of individual governments or other international organizations.” (IARC Preamble)*

### **What is the role of evidence in policy development?**

#### **Evidence Based Public Health Policy (EBPH)**

In the last two and half decades, evidence based public health policy has been increasingly seen as a tool

for affecting public health improvement through health behavior modifications, environmental interventions, and amelioration of social conditions leading to poor health. According to Brownson, Fielding and Maylahn (2009), EBPH practice is comprised of interlocking components, including use of the best available scientific data.

A key component of EBPH includes a prespecified framework for the systematic collection of evidence from available databases (e.g. epidemiologic or risk assessment modeling), published literature, evaluation results from previous or analogous interventions, and/or expert opinions (Bronson, et al, 2009; Anderson, et al, 2005; Jacobs, Jones, Gabella, Spring, and Brownson, 2012). EBPH calls for: 1) the best available evidence, 2) expert opinions and other qualitative data, and 3) an assessment of the needs, mores, values and preferences of the target population (Jones, et al, 2012). Unfortunately, utilization of EBPH still remains limited in practice (Dreisinger, et al, 2008).

### **Evidence, Values, and Ethics**

As noted earlier, evidence—when converging, unbiased, and relevant to the statement at hand—is that which increases the certainty that a given factual statement is true. Science is not the only source of evidence (Table 1), and evidence is not the only issue of relevance when it comes to public health (IARC Preamble).

The IOM recently published the report, *Using Science as Evidence in Public Policy* (2012), in which they acknowledge that the relative weights of politics, values, and scientific evidence shift depending upon a number of factors:

1. “The accuracy and persuasiveness of the descriptive analysis of the targeted social conditions.
2. The reliability of instruments and data sets used to assess the magnitude, gravity, and trajectory of the condition;
3. The level of certainty about the direction and strength of causal inferences linking interventions to desired outcome
4. Whether the task is evaluating what has happened or is estimating what will happen
5. The weight accorded to knowledge that comes from experience and practical expertise
6. The level of concerns about unwanted or unplanned consequences;
7. The social values at stake, and how widely they are shared; and
8. The power base of organized political interests.” (IOM 2011 p. 15)

### **How should we consider evidence and values frameworks into the development and review of policy proposals?**

#### **The Consideration of Risk, Harm, and Benefit**

The role of evidence is to support factual statements, for example, that a certain chemical is a carcinogen, or that some outcome is likely to occur if a given intervention is adopted. But the classification of outcomes as “harmful” or “beneficial” involves an evaluative judgment that cannot be supported (or refuted) by empirical evidence. Furthermore, weighing likely harms against likely benefits involves a further comparative value judgment. Finally, the adoption of a policy in and of itself



embodies a value judgment that some action *ought* to be taken (or not taken), or that a given policy is the *best* among the available options. Therefore, evidence for factual claims (including probabilistic claims) interacts with normative judgments about values in the construction and adoption of policy. Evidence alone is insufficient for determining or supporting the optimal policy. The potential for harm or meaningful benefit is also a critical concern.

When constructing and evaluating potential public health policies, it is useful to clarify the dimensions of risk, harm, and benefit. A *risk* is a possible future harm, and harm is typically considered to involve a setback to a person's interests, particularly in life, health, or welfare (Beauchamp and Childress 2013, p230). A *benefit* is something of positive value, such as improvement in health or welfare.

In assessing risk, both the probability of harm and the magnitude of that harm should be taken into account. For example, a particular vaccine might be known to cause a potentially fatal allergic reaction (a major harm), yet the likelihood of its occurrence might be less than 1 in 100 million (a low probability).

Similarly, in assessing likely benefits both the probability and magnitude of the benefit should be taken into account. For example, the same vaccine may save millions of lives annually (a major benefit) and the likelihood of its doing so may be very high (a high probability). Thus there is a high probability of meaningful benefit, weighed against the low probability of a significant harm. Finally, the appropriate comparison is not risks versus benefits, since statements of risk are probabilistic and statements of benefit are not. Rather, the appropriate comparison is likelihood and magnitude of harm, versus likelihood and magnitude of benefit.

The following table (modified from Beauchamp and Childress 2013, p233) represents a schema for understanding assessment of both likely harms and likely benefits. Note that classifying the magnitude of harms and benefits need not be restricted to the binary category of major/minor but can be classified in multiple ways (including continuously), and similarly for the probability of harms and benefits.

<u>Magnitude of Harm/Benefit</u>			
<u>Probability of Harm/Benefit</u>	High	Major	Minor
		1	2
	Low	3	4

Determining the probability of a given outcome is a factual question that should be addressed using the best available evidence. However, classifying that outcome as a benefit or as harm, determining the magnitude of the benefit or harm, and weighing likely harms versus likely benefits, all involve value judgments.

### **APHA Policy Adoption of the Precautionary Principle**

While desirable, factual scientific evidence is not always required. The Governing Council is committed to a clearly outlined process for development, review and approval of policy that is based on sufficient evidence to inform the development of high-impact policy. To that end it recognizes that rigorous peer

review within the APHA is necessary to clearly distinguish supportive evidence from missing and counter evidence for any given factual statement. At the same time it recognizes that there will be situations in which threats to public health may require action in the absence of certainty. To that end the Precautionary Principle is used to provide a counter-balance ensuring minimal harm occurs when such action is required in conjunction with a paucity of evidence.

APHA has supported and reaffirmed its support for the Precautionary Principle in multiple policies (APHA policy number 200011, 20098 ) allowing that “where there are threats of serious or irreversible damage, *lack of full scientific certainty shall not be used as a reason for postponing* cost-effective measures to prevent environmental degradation”...threats to child health, and workplace exposure. The adoption of the precautionary principle has enabled APHA to take stands in support of one of its cornerstones, the prevention of injury and disease, in situations and under conditions where full scientific certainty, for any number of reasons including political or ethical considerations, is not achievable.

### **Checklist to guide the use of evidence in the development and review of policy.**

With these aforementioned principles in mind, the following checklist provides questions that can guide policy statement authors and reviewers:

- What is/are the statement(s) or claim(s) being made that require evidence?
- For a given statement (i.e., public health problem), is the best *available* evidence presented?
- For a given statement (i.e., public health problem), has the evidence already been systematically reviewed by a body of experts (if so, how and by whom?)
- For a given statement (i.e., public health problem), is there counter-evidence or missing evidence?
- Is there convergence, equivocation, or divergence of findings across the available evidence?
- What are the relevant values at stake?
- What are the likely harms, both probability and magnitude?
- What are the likely benefits, both probability and magnitude?
- What are the views of relevant stakeholders (particularly people who are likely to be affected by policy)?
- Is there evidence that the recommended action will be effective? Is this evidence valid and relevant and supported by the body knowledge?
- Consider other consequences (e.g. unintended) of the policy: What is the likelihood that this would occur? How much certainty do you have regarding this?
- Consider the consequences of not acting, including all of the above (probability and magnitude of harm and benefit with respect to not acting).
- Taking into account intended and unintended consequences, weigh the probability and magnitude of harm against the probability and magnitude of benefit (as defined previously).

### **Conclusions**

APHA policies should always be supported by the “best available evidence.” This statement reflects a

major value of the Association and its members. However, APHA and its members hold other values as well. The following should be recognized by authors and reviewers of APHA policy statements:

1. There is often a need to take public health action in the face of uncertain evidence of the nature and scope of public health problems as well as the limited understanding that a given action will actually produce the desired outcome.
2. The definition of the “best available evidence” must be made within the context of the specific public health statement or public health action under consideration.
3. Frameworks for the determination of evidence and the determination of values are distinct from one another.
4. APHA has previously laid out value frameworks relative to social justice<sup>1</sup> and the precautionary principle.
5. Costs of inaction should be weighed against costs of a given public health intervention or policy.

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<sup>1</sup> The subject of another Policy Improvement Workgroup subcommittee

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