

Secretary's Advisory Committee Report #4: Target-Setting Methodologies for Objectives in Healthy People 2030

Final Report, 7-23-2018

Introduction

The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030 (the Committee) is a federal advisory committee composed of non-federal, independent subject matter experts. It is responsible for making recommendations to the Secretary of the U.S. Department of Health and Human Services (HHS) for the development and implementation of national health promotion and disease prevention objectives for 2030.

After its inaugural meeting in December of 2016, the Committee appointed several subcommittees, charging each with providing guidance on aspects of the initiative's development. The Committee tasked the Data Subcommittee with identifying data requirements for Healthy People 2030, including the data core (data needs, data source standards, and progress reporting) and data innovation (changes in data sources, analysis, and reporting; community data; summary measures; and the future of health data). The Data Subcommittee also was asked for recommendations on principles and methods to guide target setting. This report is based on the Data Subcommittee's discussions of and guidance for methods of setting targets for objectives. It has been reviewed and discussed by the full Committee on several occasions and reflects the Committee's approved recommendations.

The Healthy People initiative was inspired by the management by objectives (MBO) movement, made known by Peter Drucker in his 1954 book *The Practice of Management*¹ and popularized in the 1970s. Setting specific goals is a key component of MBO. One characteristic of Healthy People that distinguishes it from the many other federal health indicator efforts that have been developed over the past 40 years is its inclusion of quantifiable targets. At the beginning of each Healthy People cycle, a target is set for each objective. The target is a data-based estimate of achievable change over the decade (e.g., 2020 to 2030). Healthy People targets have often reflected political or policy considerations and are not strictly statistical constructs. Other factors also have affected the selection of methods for setting objective targets, including the availability of resources, expertise, and data that meet quality standards.

Purposes of Target Setting

The purposes of target setting include specifying feasible gains in health and well-being, encouraging action, and guiding appropriate allocation of human and financial resources by public and private stakeholders. Setting measurable targets for objectives is not an exact science; it requires judgment. Such judgements can be made by integrating various types of information into a realistic assessment of what can be accomplished.

Planners should consider: 1) the current status of the objective (baseline); 2) science and experience-based knowledge on achievable levels of change; 3) the extent of disparities as shown by the baseline data and the Healthy People population template; and 4) stakeholder input on the desired level of improvement. (Some proposed objectives, such as developmental or research objectives, may lack baseline data and are included in a separate section of Healthy People. Objectives for which baseline data are not available are not recommended for inclusion among Healthy People 2030's core objectives.)

Healthy People objectives may exist from the previous decade, or they may be new. Existing objectives can be modified or maintained in their original form. The decision of which target-setting method to employ for the current decade can be informed by methods used for the previous decade.

Proposed Principles and Methods

The following 5 principles should guide the target-setting process for Healthy People 2030:

- Objectives should be science based.
- Supporting material for each objective must include the methods used to identify and justify the target.
- At least 1 scenario should be suggested that will likely achieve the target.
- Targets should represent meaningful change.
- Reducing disparities and improving health equity are critical goals.

Discussion of Principles

Below, the Committee summarizes its rationale for the 5 principles that are recommended to support the selection of Healthy People 2030 targets.

Objectives should be science based.

Most fundamentally, Healthy People 2030 should use a science-based approach to set targets. There must be a strong rationale for why it will be possible for the objective's measure to move in the desired direction and be achievable. The rationale for the target should use experimental, historical, or empirical evidence to demonstrate why an objective's measure can move in the desired direction; why the chosen target is achievable; and what actions will lead to achievement of the objective's target.

The Committee recommends that each objective include a statement explaining what actions will likely lead to achieving the selected target. As discussed below, a specific scenario of action that is considered likely to achieve the target also should be included in the statement. Target achievability can be justified through a review of research, trend analysis, subgroup analysis, and identification of principal methods used to achieve improvement. Additional evidence that a target may be achievable can be drawn from the "small scale" (e.g., as documented through County Health Rankings) and generalized to the national level. The "better than the best" target-setting method also can be applied to geographic subgroups to set national targets.

Modeling is the preferred method of target setting. The Committee acknowledges that the use of modeling requires resources of both expertise and subject matter knowledge, as well as sufficient time to develop and apply the models. Recognizing that limited resources are available, a full complement of target-setting methods is identified here to offer some flexibility in target setting. Expert opinion and

input from stakeholders and implementers can inform final target selection but should not be the only methods used.

Supporting material for each objective must include the methods used to identify and justify the target.

It is important to document the target-setting method for each objective. This ensures that those who implement actions to meet the objectives have the information they need to develop programs and apply interventions. Documentation for each target should include an explanation of how it was developed. Experimental, historical, or empirical evidence can be cited to demonstrate the target's achievability. Evidence could include, for example, intervention studies in which the target has been achieved.

The supporting material should address whether the selected target is largely objective (that is, based primarily on well-designed and well-executed intervention study results, modeling, or other analysis) or largely aspirational. The term "aspirational" refers to targets that depend substantially on weaker sources of information such as limited generalizability intervention studies. Ambitious, aspirational targets also could be suggested in situations where the topic is of importance to health and there is a priority need for well-designed and well-executed studies that could potentially validate the targets.

At least 1 scenario should be suggested that will likely achieve the target.

Many factors influence the probability that an objective will reach its target, but at least 1 scenario should be identified that will achieve the target. The principles that address science, methods, demonstrated achievability, and assuring meaningful change guide the selection of targets; they are key to Recommendation 2, "Assure that the objective's target is achievable by review of research, trend analysis, and subgroup analysis, and identify principal methods to achieve improvement. A scenario should be provided in which the target could be achieved." This guidance is relevant to the application of all target-setting methods.

Targets should represent meaningful change.

It is possible that, when measured on a national scale, the difference between a baseline data point and a target could be statistically significant without representing a substantive change in health and well-being or functioning (i.e., "meaningful change"). The Committee recommends assessing targets based on whether they represent a meaningful change in the health, well-being, and functional status of a population.

Reducing disparities and improving health equity are critical goals.

It is important to highlight objectives that have the potential to improve health equity. While progress toward an overall target may be achieved, it also is possible that some population groups may be left behind, and their lack of progress masked by overall progress toward the target. The Committee feels that, as part of the supporting material for each objective, it is critical to address how to effect positive change for the entire population while also addressing disparities and health equity. Few existing interventions have been proven effective for reducing disparities and improving health equity for all population subgroups.

Recommendations

The Committee has identified 5 principles and 8 methods to set targets for Healthy People objectives and their priority in setting targets for Healthy People 2030. We have summarized these principles and recommended target-setting methods in 5 recommendations as follows:

- Recommendation 1 lists the 5 principles.
- Recommendation 2 encapsulates the principles on science, methods, demonstrated achievability, and assuring meaningful change that guide target choice.
- Recommendation 3 stresses the importance of addressing disparities to advance progress toward achieving health equity.
- Recommendation 4 provides a list of methods, each of which has been used in prior decades of Healthy People. The list includes examples of each method, drawn from Healthy People 2020.
- Recommendation 5 offers perspective on the use of expert opinion in relation to other recommended target-setting methods.

Appendix 1 offers additional detail on the extent to which each method was used in setting targets for Healthy People 2020.

Recommendations for Target-Setting Methods

Recommendation 1: Principles	<p>The following principles should underlie a science-based approach to setting achievable targets for Healthy People 2030:</p> <ul style="list-style-type: none">• Objectives should be science based.• Supporting material for each objective must include the methods used to identify and justify the target.• At least 1 scenario should be suggested that will likely achieve the target.• Targets should represent meaningful change.• Reducing disparities and improving health equity are critical goals.
Recommendation 2: Guidance for All Methods	<p>Assure that the objective’s target is achievable by review of research, trend analysis, and subgroup analysis, and identify principal methods to achieve improvement. A scenario should be provided in which the target could be achieved.</p>
Recommendation 3: Addressing Disparities and Health Equity	<p>A statement on the extent and distribution of disparities among categories of the population template should be appended to each objective’s target. [The draft population template is included below, in Appendix 2.]</p> <p>A single target may mask important health and well-being disparities. In consideration of achieving health equity it is recommended that each objective be examined to see if, in addition to a single overall target, multiple targets addressing subgroups also are needed.</p>

Recommendation 4: Target-Setting Methods	It is recommended that target-setting methods be prioritized for use in the following order.	
Target-Setting Method	Description	Healthy People 2020 Example
1. Modeling and/or Projection/Trend Analysis	Modeling and statistical analysis are used to identify possible future targets. Target selection based on health impact, achievability, feasible actions.	EH-3.2 Reduce the risk of adverse health effects caused by area sources of airborne toxins. This target was developed from an EPA emissions concentration forecast model that includes mobile sources, fires, area sources, and major sources in the modeling. Baseline: 1,300,000 tons (2005) Target: 1,700,000 tons
2. Adapting Recommendations from National Programs, Regulations, Policies, and Laws	National programs may have targets suitable for Healthy People. Methods used to set the targets should be reviewed to assure consistency with current science. Level of target achievability and health impact depend on the supporting analysis.	IID-8 Increase the percentage of children aged 19 to 35 months who receive the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella, and pneumococcal conjugate vaccine (PCV). Baseline: 68.4% in 2012 Target: 80.0%, consistent with CDC analysis
3. Evidence-Based Percentage Point Improvement	Target selected by choosing a percentage improvement. Supporting the choice should be a systematic review of evidence and/or modeling/projection to assure target achievability. Strong target achievability assuming systematic review of evidence and projection of trends.	EMC-4.3.1 Increase the proportion of elementary schools that require cumulative instruction in health education that meet the U.S. National Health Education Standards for elementary, middle, and senior high schools. Baseline: 7.5% in 2006 Target: 11.5%, an increase of 4% (or a relative increase of 53%)
4. Better than the Best	Chooses the “best” value of the measure across subgroups as an achievable target for other subgroups. Analysis should include identification of key subgroup-specific factors that enable progress.	(HP2010) 12-9 Reduce the proportion of adults with high blood pressure. Baseline: 25% (1988–94) Target: 14% Note: Mexican Americans had the “best” rate.
5. Minimal Statistical Significance	Chooses a target so the distance between the target and the baseline is the smallest distance to represent	RD-4 Reduce activity limitations among persons with current asthma. This rate represents the percentage of people

	<p>a statistically significant change.</p> <p>The target should take into account key factors that will influence improvement. Could lead to a target consistent with little health impact.</p>	<p>with asthma who currently have activity limitations.</p> <p>Baseline: 12.7% (2008)</p> <p>Target: 10.3%</p>
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Target-Setting Method	Description	Healthy People 2020 Example
6. Retention of the Previous Healthy People Target	Reflects little progress made in the prior decade. New analysis is critical to assure achievability, determine importance of health problem, and encourage action. Key factors that will influence improvement should be identified.	<p>TU-11.1</p> <p>Reduce cigarette smoking by adults.</p> <p>Baseline: 20.6% (2008)</p> <p>Target: 12%</p>
7. Total Coverage/ Elimination	<p>Total coverage or total elimination is sought and deemed achievable within the decade.</p> <p>Concern that these goals may not be realistic and/or achievable.</p>	<p>AHS-1.1</p> <p>Increase the proportion of persons with medical insurance.</p> <p>Baseline: 83.2% (2008)</p> <p>Target: 100%</p> <p>Interim data: 89.7% (2016)</p> <p>IID-1.8</p> <p>Maintain elimination of polio.</p> <p>Baseline: 0 cases (2008)</p> <p>Target: 0 cases</p> <p>Interim data: 0 cases (2015)</p>
8. Maintain the Baseline Value as the Target	<p>For health problems that are in imminent danger of getting worse. Key factors that will achieve stability of the baseline need to be known.</p> <p>A method that should be used only in special cases of a concern for decreasing health status.</p>	<p>IVP-9.4</p> <p>Prevent an increase in poisoning deaths caused by unintentional or undetermined intent among persons aged 35 to 54 years.</p> <p>Baseline: 21.6 deaths per 100,000 (2007)</p> <p>Target: 21.6 deaths per 100,000</p> <p>Interim data: 34.2 (2016)</p>
Recommendation 5: Use of Expert Opinion	Expert opinion and input from stakeholders/implementers also can inform target selection but should not be used as a method for target selection.	

References:

1. Drucker P. The Practice of Management. New York: HarperBusiness; 1993, c1954.

APPENDIX 1. Summary of Healthy People 2020 Objectives by Target-Setting Method (targets met as of March 23, 2018)

<i>Target-Setting Method</i>	Number of Objectives	% of Total	Targets Met	% of Targets Met
<i>10 percent improvement</i>	576	62.2%	210	36.5%
<i>Specific percentage point improvement</i>	26	2.8%	8	30.8%
<i>Maintain the baseline value</i>	13	1.4%	4	30.8%
<i>Minimal statistical significance</i>	50	5.4%	12	24.0%
<i>Projection/trend analysis</i>	78	8.4%	17	21.8%
<i>Consistency with national programs, regulations, policies, and laws</i>	80	8.6%	17	21.3%
<i>Retention of Healthy People 2010 target</i>	10	1.1%	2	20.0%
<i>Total coverage/elimination</i>	83	9.0%	5	6.0%
<i>Modeling</i>	10	1.1%	0	0.0%
<i>Total</i>	926	100%	275	29.7%

APPENDIX 2. Draft Healthy People 2030 Population Data Template

- Total
- Sex
 - Male
 - Female
- Race/ethnicity
 - American Indian/Alaska Native only
 - Asian only
 - Native Hawaiian/Pacific Islander only
 - Black or African American only
 - White only
 - 2 or more races
 - Hispanic or Latino
 - Not Hispanic or Latino
 - Black, not Hispanic or Latino
 - White, not Hispanic or Latino
- Age (groups TBD after objective selection)
- Educational attainment
 - <High school
 - High school
 - Some college or associate's degree
 - 4-year college degree or more
- Family income (percent poverty threshold)
 - <100
 - 100–199
 - 200–399
 - <=400
- Health insurance status
 - Insured
 - Public
 - Private
 - Uninsured
- Geographic location or region
 - Metropolitan
 - Non-metropolitan
- Marital status
 - Married/cohabiting partner
 - Divorced or separated/widowed
 - Never married
- Available data or “data not collected” will be shown for select objectives for these categories:
 - Sexual orientation
 - Gender identity
 - Disability status