Guide to Prioritization Techniques

Introduction

Despite the many accomplishments of local public health, we continue to see emerging population-wide health threats as we forge ahead into to the 21st Century. We are in an economic climate where LHD personnel are facing dire budget cutbacks while simultaneously dealing with issues like H1N1, chronic diseases, and natural disasters. Because LHDs are the backbone of the public health system, the recent movement to establish a national system of accountability for governmental health agencies is particularly timely. The Public Health Accreditation Board (PHAB) is developing a voluntary national accreditation program which is grounded in continuous quality improvement. As LHDs work toward meeting accreditation standards and implementing quality improvement efforts, they are faced with an infinite number of competing health issues to address, while keeping in mind several external considerations such as urgency, cost, impact and feasibility, to name just a few. Fortunately, a number of prioritization methods specifically designed to assist agencies with this very challenge have been developed and widely used in a range of industries including public health. When faced with these tough decisions, employing a defined prioritization technique can provide a structured mechanism for objectively ranking issues and making decisions, while at the same time gathering input from agency-wide staff and taking into consideration all facets of the competing health issues.

This document serves as a guide and provides five widely used options for prioritization including guidance on which technique best fits the needs of your agency, step-by-step instructions for implementation, and practical examples.

Getting Started

Prior to the implementation of any prioritization process, preliminary preparations are necessary to ensure the most appropriate and democratic selection of priority health issues:[i]

1. **Community assessment** – Conducting assessments will determine the current status and detect gaps to focus on as potential priority areas. LHDs engaging in the Public Health Accreditation Board (PHAB) accreditation process must conduct a *community* health assessment (CHA) as a prerequisite for eligibility. A CHA provides data on the overall health of a community and uncovers target priority areas where a population may have increased risk for poor health outcomes.

2. **Agency self-assessment -** As part of the national accreditation process, LHDs must use the PHAB *agency* self-assessment tool to evaluate agency performance against nationally recognized standards. Post-assessment, LHDs can analyze their results and determine strengths and areas for improvement to address through continuous quality improvement efforts. Prioritization methods can be used to help select areas for improvement from a CHA or PHAB self-assessment.

3. **Clarify objectives and processes –** Before beginning the process, LHD leadership must ensure that all team members have a clear understanding of the goals and objectives along with the chosen prioritization process.

4. **Establish criteria -** Selection of appropriate prioritization criteria on which to judge the merit of potential focus areas is important to avoid selection based on bias or hidden agendas and ensure that everyone is 'on the same page.' **Table 1.1** below identifies criteria commonly used in prioritization processes:

Table 1.1: Commonly Used Prioritization Criteria[ii]

Criteria to Identify Priority Problem	Criteria to Identify Intervention for Problem
• Cost and/or return on investment • Availability of solutions • Impact of problem • Availability of resources (staff, time, money, equipment) to solve problem • Urgency of solving problem (H1N1 or air pollution) • Size of problem (e.g. # of individuals affected)	• Expertise to implement solution • Return on investment • Effectiveness of solution • Ease of implementation/maintenance • Potential negative consequences • Legal considerations • Impact on systems or health • Feasibility of intervention

Prioritization in Practice

The following section highlights five prioritization methods:

1. Multi-voting Technique
2. Strategy Grids
3. Nominal Group Technique
4. The Hanlon Method
5. Prioritization Matrix

Each sub-section includes step-by-step instructions on implementation followed by examples illustrating practical application. It is important to remember that no right or wrong method of prioritization exists. Although the provided examples in this document are useful in gaining an understanding of how to use prioritization techniques, they are not meant to be prescriptive but rather, should be tailored to the needs of individual agencies. Additional information on prioritization processes can be found in the Assessment Protocol for Excellence in Public Health (APEX*PH*).

Multi-voting Technique [iii]

Multi-voting is typically used when a long list of health problems or issues must be narrowed down to a top few. Outcomes of Multi-voting are appealing as this process allows a health problem which may not be a top priority of any individual but is favored by all, to rise to the top. In contrast, a straight voting technique would mask the popularity of this type of health problem making it more difficult to reach a consensus.

Step-by-Step Instructions:

1. **Round 1 vote –** Once a list of health problems has been established, each participant votes for their highest priority items. In this round, participants can vote for as many health problems as desired or, depending on the number of items on the list, a maximum number of votes per participant can be established.
2. **Update list** - Health problems with a vote count equivalent to half the number of participants voting remain on the list and all other health problems are eliminated (e.g. if 20 participants are voting, only health problems receiving 10 or more votes remain).
3. **Round 2 vote** – Each participant votes for their highest priority items of this condensed list. In this round, participants can vote a number of times equivalent to half the number of health problems on the list (e.g. if ten items remain on the list, each participant can cast five votes).

4. **Repeat** – Step 3 should be repeated until the list is narrowed down to the desired number of health priorities.

Multi-voting Example: The following example illustrates how an LHD used the Multi-voting technique to narrow down a list of ten health problems, identified by an agency self-assessment, to one priority focus area for a quality improvement (QI) project. **Table 2.1** illustrates the results of a three-round multi-voting process implemented by a group of 6 project directors using the following steps:

1. **Round-one vote** – On a note card, all participants anonymously voted for as many priority focus areas as desired.
2. **Update list** – All votes were tallied and the six health indicators receiving three or more votes were posted for the group to view.
3. **Round-two vote** – All participants voted up to three times for the remaining health indicators.
4. **Update list** – All votes were re-tallied and the three health indicators receiving less three or more votes were posted for the group to view.
5. **Round-three vote** - All participants voted up to two times and the only item with three or more votes, "Effective Media Strategy," was the chosen focus area for a QI project.

Table 2.1: Three-Round Multi-voting Example
Jane Doe County Health Department wanted to prioritize one health problem to address with funds from a small grant. They began with a list of 12 health problems, which they identified through standards and measures where they scored poorly on PHAB's self-assessment tool. The director convened the management team and implemented the multi-voting method to select the priority area.

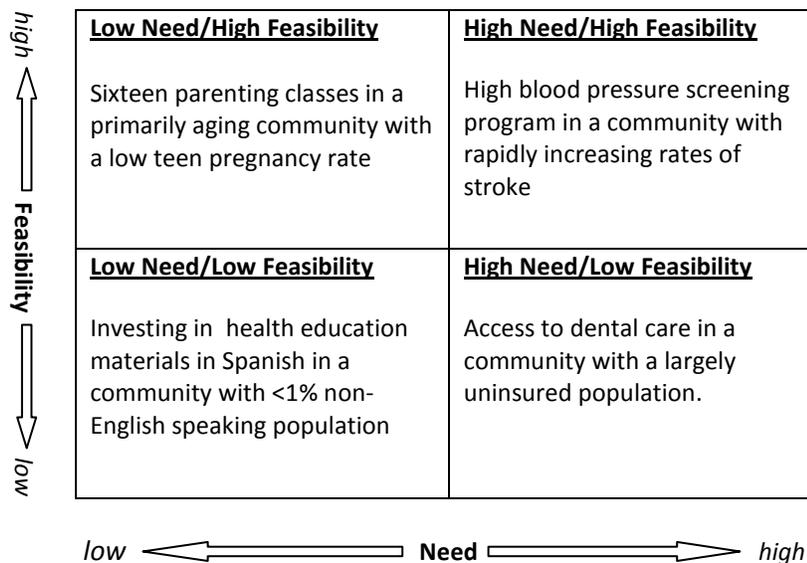| Health Indicator	Round 1 Vote	Round 2 Vote	Round 3 Vote
Collect and maintain reliable, comparable, and valid data	√√√√	√√	
Evaluate public health processes, programs, and interventions.	√√√√√	√√√√	√√√√√
Maintain competent public health workforce	√√		
Implement quality improvement of public health processes, programs, and interventions	√√√√	√√	
Analyze public health data to identify health problems	√√		
Conduct timely investigations of health problems in coordination with other governmental agencies and key stakeholders	√√		
Develop and implement a strategic plan	√√√√√	√√√√	√√
Provide information on public health issues and functions through multiple methods to a variety of audiences	√√		
Identify and use evidence-based and promising practices	√√		
Conduct and monitor enforcement activities for which the agency has the authority	√		
Conduct a comprehensive planning process resulting in a community health improvement plan	√√√√√	√√√√	√√
Identify and implement strategies to improve access	√√√	√√	

Strategy Grids [iv]

Strategy grids facilitate agencies in refocusing efforts by shifting emphasis towards addressing problems that will yield the greatest results. This tool is particularly useful when agencies are limited in capacity and want to focus on areas that provide 'the biggest bang for the buck.' Rather than viewing this challenge through a lens of diminished quality in services, strategy grids can provide a mechanism to take a thoughtful approach to achieving maximum results with limited resources. This tool may assist in transitioning from brainstorming with a large number of options to a more focused plan of action.

The strategy grid below provides an example of an LHD's effort to refocus efforts towards programs that will feasibly result in the greatest impact. Refer to the example strategy grid below while working through the step-by-step instructions.

Step-by-Step Instructions:

1. **Select criteria** – Choose *two* broad criteria that are currently most relevant to the agency (e.g. 'importance/urgency,' 'cost/impact,' 'need/feasibility,' etc.). Competing activities, projects or programs will be evaluated against how well this set of criteria is met. The example strategy grid below uses 'Need' and 'Feasibility' as the criteria.
2. **Create a grid** – Set up a grid with four quadrants and assign one broad criteria to each axis. Create arrows on the axes to indicate 'high' or 'low,' as shown below.
3. **Label quadrants** – Based on the axes, label each quadrant as either 'High Need/High Feasibility,' 'High Need/Low Impact,' 'Low Need/High Feasibility,' 'Low Need/Low Feasibility.'
4. **Categorize & Prioritize -** Place competing activities, projects, or programs in the appropriate quadrant based on the quadrant labels. The example below depicts 'Need' and 'Feasibility' as the criteria and items have been prioritized as follows:

    - *High Need/High Feasibility* – With high demand and high return on investment, these are the highest priority items and should be given sufficient resources to maintain and continuously improve.
    - *Low Need/High Feasibility* – Often politically important and difficult to eliminate*,* these items may need to be re-designed to reduce investment while maintaining impact.
    - *High Need/Low Feasibility* – These are long term projects which have a great deal of potential but will require significant investment. Focusing on too many of these items can overwhelm an agency.
    - *Low Need/Low Feasibility* – With minimal return on investment, these are the lowest priority items and should be phased out allowing for resources to be reallocated to higher priority items.

Strategy Grid

	Low Need	**High Need**
high (Feasibility)	**Low Need/High Feasibility** Sixteen parenting classes in a primarily aging community with a low teen pregnancy rate	**High Need/High Feasibility** High blood pressure screening program in a community with rapidly increasing rates of stroke
low (Feasibility)	**Low Need/Low Feasibility** Investing in health education materials in Spanish in a community with <1% non-English speaking population	**High Need/Low Feasibility** Access to dental care in a community with a largely uninsured population.

low ⟵ **Need** ⟶ high

Nominal Group Technique [v]

The Nominal Group Technique (NGT) has been widely used in public health as a mechanism for prioritizing health problems through group input and information exchange. **This method is useful in the early phases of prioritization when there exists a need to generate a lot of ideas in a short amount of time and when input from multiple individuals must be taken into consideration.** Often, the Multi-voting Technique is used in conjunction with NGT whereby NGT can be used to brainstorm ideas and create a broad list of possibilities and Multi-voting can be used to narrow down the list to pinpoint the top priorities. One of the greatest advantages of using this technique is that it is a democratic process allowing for equal say among all participants, regardless of position in the agency or community.

Step-by-Step Instructions:

1. **Establish group structure** – Establish a group of, ideally, 6-20 people to participate in the NGT process and designate a moderator to take the lead in implementing the process. The moderator should clarify the objective and the process.
2. **Silent brainstorming** – The moderator should state the subject of the brainstorming and instruct the group to silently generate ideas and list them on a sheet of paper.
3. **Generate list in round-robin fashion** – The moderator should solicit one idea from each participant and list them on a flip chart for the group to view. This process should be repeated until all ideas and recommendations are listed.

4. **Simplify & clarify** –The moderator then reads aloud each item in sequence and the group responds with feedback on how to condense or group items. Participants also provide clarification for any items that others find unclear.
5. **Group discussion** – The moderator facilitates a group discussion on how well each listed item measures up to the criteria that was determined by the team prior to the NGT process.
6. **Anonymous ranking –** On a note card**,** all participants silently rank each listed health problems on a scale from 1 to 10 (can be altered based on needs of agency) and the moderator collects, tallies, and calculates total scores.
7. **Repeat if desired** – Once the results are displayed, the group can vote to repeat the process if items on the list receive tied scores or if the results need to be narrowed down further.

John Doe County Health Department: Nominal Group Technique Example

The John Doe County Health Department (JDCHD) implemented NGT to choose one priority focus area for a QI project. In an effort to remain objective, the process was facilitated by an external consultant and the decision making team was a large group of 27 program and division managers and staff from throughout the agency. The goal of the exercise was to identify a focus area for a QI project based on the following criteria: 1) areas of weakness determined by agency self-assessment results; 2) the degree to which the health department is used for a particular service; and 3) the level of impact the health department can make to bring forth an improvement. In preparation for the exercise, the group was also provided with a detailed report of findings from the agency self-assessment to read prior to the decision-making process.   From this point, the following steps were followed to identify a primary focus area for improvement:

1. **Silent brainstorming –** Two weeks in advance of the meeting**,** team members were provided with results of the self-assessment for review and to individually brainstorm ideas on which health issues should be the focus of a QI project.
2. **Generate list –** At the start of the meeting, the facilitator collected potential health issues from all group members, one by one, and recorded them on a flip chart. The list was simplified by combining and grouping similar items, resulting in the 6 potential health indicators shown in **Table 3.1**.
3. **Group discussion –** The facilitator led a discussion where everyone was given the opportunity to provide input on how each of the 6 priorities measured up against the criteria previously established.
4. **Anonymous voting –** Following the meeting**,** all group members individually completed an on-line ranking for their top three choices by assigning a number of 1-3 next to each option, with 1 being the last choice and 3 being the first choice.
5. **Calculate priority score –** The total priority scores were calculated by adding scores given by every group member for each item on the list **Table 3.1** shows a compilation of the rankings from the 27 group members with improved communication and coordination between divisions and programs within the health department as the top priority:

Table 3.1: Count of Staff Responses to QI Focus Areas

Priority Health Indicator	1st Choice Score = 3	2nd Choice Score = 2	3rd Choice Score = 1	Total Score
Improve communication and coordination between divisions and programs within health	4	6	6	30

department				
Engage policymakers and community to support health department initiatives	1	6	3	18
Promote understanding of public health in general and health department as an organization among stakeholders (may include internal and external stakeholders)	3	1	6	17
Better utilize data and best practices to inform health department program decisions and to generate community support and understanding of the health department's role and contribution to public health	2	4	6	20
Establish a health department presence and recognition at a level comparable to other major City departments	4	5	5	27

The Hanlon Method [vi]

Developed by J.J. Hanlon, the *Hanlon Method for Prioritizing Health Problems* is a well respected technique which objectively takes into consideration explicitly defined criteria and feasibility factors. **Though a complex method, the Hanlon Method is advantageous when the desired outcome is an objective list of health priorities based on baseline data and numerical values**.

Step-by-Step Instructions:
1. **Rate against specified criteria** – Once a list of health problems has been identified, on a scale from zero through ten, rate each health problem on the following criteria: *size of health problem, magnitude of health problem, and effectiveness of potential interventions*. It is important to remember that this step requires the collection of baseline data from the community such as from a community health assessment. **Table 4.1** illustrates an example numerical rating system for rating health problems against the criteria.

Table 4.1

The Hanlon Method: Sample Criteria Rating			
Rating	**Size of Health Problem** *(% of population w/health problem)*	**Seriousness of Health Problem**	**Effectiveness of Interventions**
9 or 10	>25% (STDs)	Very serious (e.g. HIV/AIDS)	80% - 100% effective (e.g. vaccination program)
7 or 8	10% - 24.9%	Relatively Serious	60% - 80% effective
5 or 6	1% - 9.9%	Serious	40% - 60% effective
3 or 4	.1% - .9%	Moderately Serious	20% - 40% effective
1 or 2	.01% - .09%	Relatively Not Serious	5% - 20% effective
0	< .01% (Meningococcal Meningitis)	Not Serious (teen acne)	<5% effective (access to care)
Guiding considerations when ranking health problems against the 3 criteria	• Size of health problem should be based on baseline data collected from the individual community.	• Does it require immediate attention? • Is there public demand? • What is the economic impact? • What is the impact on	• Determine upper and low measures for effectiveness and rate health problems relative to those limits. • For more information on assessing effectiveness of

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		quality of life? • Is there a high hospitalization rate?	interventions, visit http://www.communityguide. org to view CDC's Guide to *Community Preventive Services.*

Note: The scales in Table 1 are arbitrary models of how numerical scales are established and are not based on real epidemiological data; LHDs should establish scales that are appropriate for the community being served.

2. **Apply the 'PEARL' test** - Once health problems have been rated by criteria, use the 'PEARL' Test, to screen out health problems based on the following feasibility factors:

- **P**ropriety – Is a program for the health problem suitable?
- **E**conomics – Does it make economic sense to address the problem? Are there economic consequences if a problem is not carried out?
- **A**cceptability – Will a community accept the program? Is it wanted?
- **R**esources – Is funding available or potentially available for a program?
- **L**egality – Do current laws allow program activities to be implemented?

Eliminate any health problems which receive an answer of "No" to any of the above factors or proceed with corrective action to ensure that potential health priorities meet all five of the feasibility factors.

3. **Calculate priority scores** – Based on the three criteria rankings assigned to each health problem in Step 1 of the Hanlon Method, calculate the priority scores using the following formula:

$$D = [A + (2 \times B)] \times C$$

Where: D = Priority Score
A = Size of health problem ranking
B = Seriousness of health problem ranking
C = Effectiveness of intervention ranking

Note: Seriousness of health problem is multiplied by two because according to the Hanlon technique, it is weighted as being twice as important as size of health problem.

4. **Rank the health problems** – Based on the priority scores calculated in Step 3 of the Hanlon Method, assign ranks to the health problems with the highest priority score receiving a rank of '1,' the next high priority score receiving a rank of '2,' and so on.

McLean County Health Department - The Hanlon Method Example:
As a part of the Illinois Project for Local Assessment of Needs (IPLAN), a community health assessment and planning process, the McLean County Health Department (MCHD) used the Hanlon Method to prioritize health problems in the community. After determining the top eight health problems from the community health assessment data, MCHD used the Hanlon Method to establish the top three focus areas the agency should address. The following steps were taken to implement the prioritization process:

1. **Rate against specified criteria** – To rate each health problem, MCHD used the following considerations for each Hanlon criterion. **Table 3.2** illustrates the top three of the eight health problems and corresponding ratings for each criterion.
   - *Size of the problem* – the percentage of the population with the problem, with an emphasis on the percentage of the population at risk for the problem
   - *Seriousness of the problem* – morbidity rates, mortality rates, economic loss, and the degree to which there is an urgency for intervention
   - *Effectiveness of the intervention* – the degree to which an intervention is available to address the health problem

2. **Apply the 'PEARL' test** – After long discussion, all eight health problems passed the 'PEARL' test as the interventions for each problem were judged to be proper, economical, acceptable, feasible based on available resources, and legal.

3. **Calculate the priority scores** – Priority scores were calculated by plugging in the ratings from Columns A through B into the formula in Column D. The calculations of the top three priority scores are illustrated in **Table 3.2**

Table 4.2: MCHD Hanlon Priority Scoring

Health Problem	A Size	B Seriousness	C Effectiveness of Intervention	D Priority Score (A + 2B)C	Rank
Cancer	8	10	6	168	3
Cerebrovascular Disease	7	9	7	175	2
Heart Disease	10	10	7	210	1

Livingston County Department of Health - The 'PEARL' Test Example:

Often, the 'PEARL' component is pulled out of the Hanlon Method and applied on its own or used in conjunction with other prioritization techniques. The following example illustrates how the Livingston County Department of Health (LCDOH) in New York applied the "PEARL" test to assist in the selection of a QI project in preparation for accreditation.

The LCDOH accreditation team was comprised of the agency's center directors and supervising staff and the process was facilitated by an external consultant to ensure objectivity and minimization of bias. Initially, the team completed a scoring matrix to identify areas of weakness and came up with the following focus areas: *engaging in research, connectedness to universities, strategic planning,* and *development and maintenance of an effective performance appraisal system*. Once the team reached a consensus on these potential focus areas, a 'process of elimination' tactic was employed by utilizing the 'PEARL' Test. The facilitator led the group through a discussion allowing all team members to provide input on how well each focus area measured up to the 'PEARL' feasibility criteria. Upon consideration of the criteria, LCDOH initially eliminated engagement in research and connectedness to universities because the group felt that, at that time, any time or resources put into these issues would yield minimal results. Additional focus areas were also eliminated until, ultimately, the group agreed that improving and maintaining an effective performance appraisal system passed all 'PEARL' criteria. Since the previous system lacked basic core competencies, as a part of a QI project, LCDOH went on to

develop a new performance appraisal system which incorporated eight fundamental core competencies which all staff are expected to meet. The new system was tested and changes were made based on feedback provided from the staff. In an effort to continually improve the system, each center is developing more specific competencies for particular job titles.

Prioritization Matrix [iv]

A prioritization matrix is one of the more commonly used tools for prioritization and is ideal when health problems are considered against a large number of criteria or when an agency is restricted to focusing on only one priority health issue. Although decision matrices are more complex than alternative methods, they provide a visual method for prioritizing and account for criteria with varying degrees of importance.

Step-by-Step Instructions:
The following steps outline the procedure for applying a prioritization matrix to prioritize health issues. While working through each step, refer to **Table 4.1** below for a visual representation:

Table 5.1: Example Prioritization Matrix

	Criterion 1 (Rating X Weight)	Criterion 2 (Rating X Weight)	Criterion 3 (Rating X Weight)	Priority Score
Health Problem A	2 X 0.5 = 1	1 X .25 = .25	3 X .25 = .75	2
Health Problem B	3 X 0.5 = 1.5	2 X .25 = 0.5	2 X .25 = 0.5	2.5
Health Problem C	1 X 0.5 = 0.5	1 X .25 = .25	1 X .25 = .25	1

1. **Create a matrix –** List all health issues vertically down the y-axis (vertical axis) of the matrix and all the criteria horizontally across the x-axis of the matrix so that each row is represented by a health issue and each column is represented by a criterion. Include an additional column for the priority score.
2. **Rate against specified criteria –** Fill in cells of the matrix by rating each health issue against each criterion which should have been established by the team prior to beginning this process. An example of a rating scale can include the following:

> **3 = criterion met well**
> **2 = criterion met**
> **1 = criterion not met**

3. **Weight the criteria –** If each criterion has a differing level of importance, account for the variations by assigning weights to each criterion. For example, if 'Criterion 1' is twice as important as 'Criterion 2' and 'Criterion 3,' the weight of 'Criterion 1' could be .5 and the weight of 'Criterion 2' and 'Criterion 3' could be .25. Multiply the rating established in Step 2 with the weight of the criteria in each cell of the matrix. If the chosen criteria all have an equal level of importance, this step can be skipped.
4. **Calculate priority scores –** Once the cells of the matrix have been filled, calculate the final priority score for each health problem by adding the scores across the row. Assign ranks to the health problems with the highest priority score receiving a rank of '1.'

Lawrence-Douglas County Health Department: Example Prioritization Matrix

Prior to beginning the prioritization process, Lawrence-Douglas County Health Department (LDCHD) developed a decision-making team which was comprised of ten people including directors and coordinators from throughout the department. Next, upon completion of an agency self-assessment, LDCHD identified areas of weakness and created a list of three potential health indicators to improve upon, along with five criteria found to be most relevant in pinpointing which health indicator will prove to have the greatest impact on the needs of Lawrence-Douglas County. Once these variables were determined, the groundwork was in place and LDCHD was ready to use a prioritization matrix to weigh the identified health indicators against each criterion to make a final decision on a focus area for a QI project. The following steps were used to implement the process:

1. **Create a matrix** – LDCHD used the prioritization matrix shown in **Table 4.2**, with the chosen health indicators listed on the Y-axis and each criterion listed across the X-axis:

Table 5.2: LDCHD Prioritization Matrix

	Evaluative Criteria					
Proposed Area for Improvement Based on LHD Self-Assessment	Linkage to Strategic Vision (.25)	Do we need to improve this area? (.25)	What chance is there that changes we put into place will make a difference? (.5)	Likelihood of completion within the timeframe we have (.5)	Importance to Customer (customer is the one who would benefit; could be patient or community) (.75)	**Total Score**
Media strategy & Communications to raise public health awareness	3 X (.25)	4 X (.25)	4 X (.5)	3 X (.5)	3 X (.75)	**7.5**
Work within network of stakeholders to gather and share data and information	2 X (.25)	3 X (.25)	2 X (.5)	1 X (.5)	1 X (.75)	**3.5**
Continuously develop current information on health issues that affect the community	4 X (.25)	2 X (.25)	3 X (.5)	1 X (.5)	2 X (.75)	**5**

*Note: The numerical rankings in Table 3.1 are meant to serve as an example and do not reflect the actual rankings from LDCHD's prioritization process.

2. **Rank each health indicator against criteria** – Each member of the decision-making team was given this prioritization matrix and asked to fill it out individually based on the following rating scale:
   - **4 = High priority**
   - **3 = Moderate priority**
   - **2 = Low priority**
   - **1 = Not priority**

   After completing the matrix, each team member individually discussed with the facilitators of the process the reasoning behind how the health indicators were rated.

3. **Weight the criteria –** Although LDCHD weighted each criterion equally, (i.e. each criterion was assigned a multiplier of 1) the numbers in red provide an arbitrary example of how an agency

could assign weights to the criteria based on perceived importance. In this example, with multipliers of .5, 'Likelihood of making a difference' and 'Completion within timeframe' are weighted as twice as important as 'Linkage to strategic vision' and 'Need for improvement,' with multipliers of .25. With a multiplier of .75, 'Importance to customer' is weighted as three times as important.

4. **Calculate priority scores –** Final priority scores are calculated by adding the weighted scores across the row and recording it in the 'Total Score' column. Since LDCHD had the team complete multiple matrices, the total scores for each health indicator were added together to determine the final priority scores. With 'Media Strategies' receiving the highest priority score of 7.5, it was assigned a rank of '1' and identified as the highest priority health indicator.

Conclusion
In a world with a growing number of health concerns, scarce resources, budget cuts, and conflicting opinions, it is very easy to lose sight of the ultimate goal - improving health outcomes. Often times these external forces drive the decision making process within a health department and make determining where to focus resources and time challenging. Prioritization techniques provide a structured approach to analyze health problems and solutions, relative to all criteria and considerations, and focus on those that will prove to have the greatest impact on the overall health of a community.

Appendices

3 Round Multi-voting Template

Health Indicator	Round 1 Vote	Round 2 Vote	Round 3 Vote

Instructions:
1. Fill in items to be prioritized under the 'Health Indicator' column
2. Tally votes for each round of voting in the respective column

Strategy Grid

high

↑

low

low ⟵ _____ ⟶ high
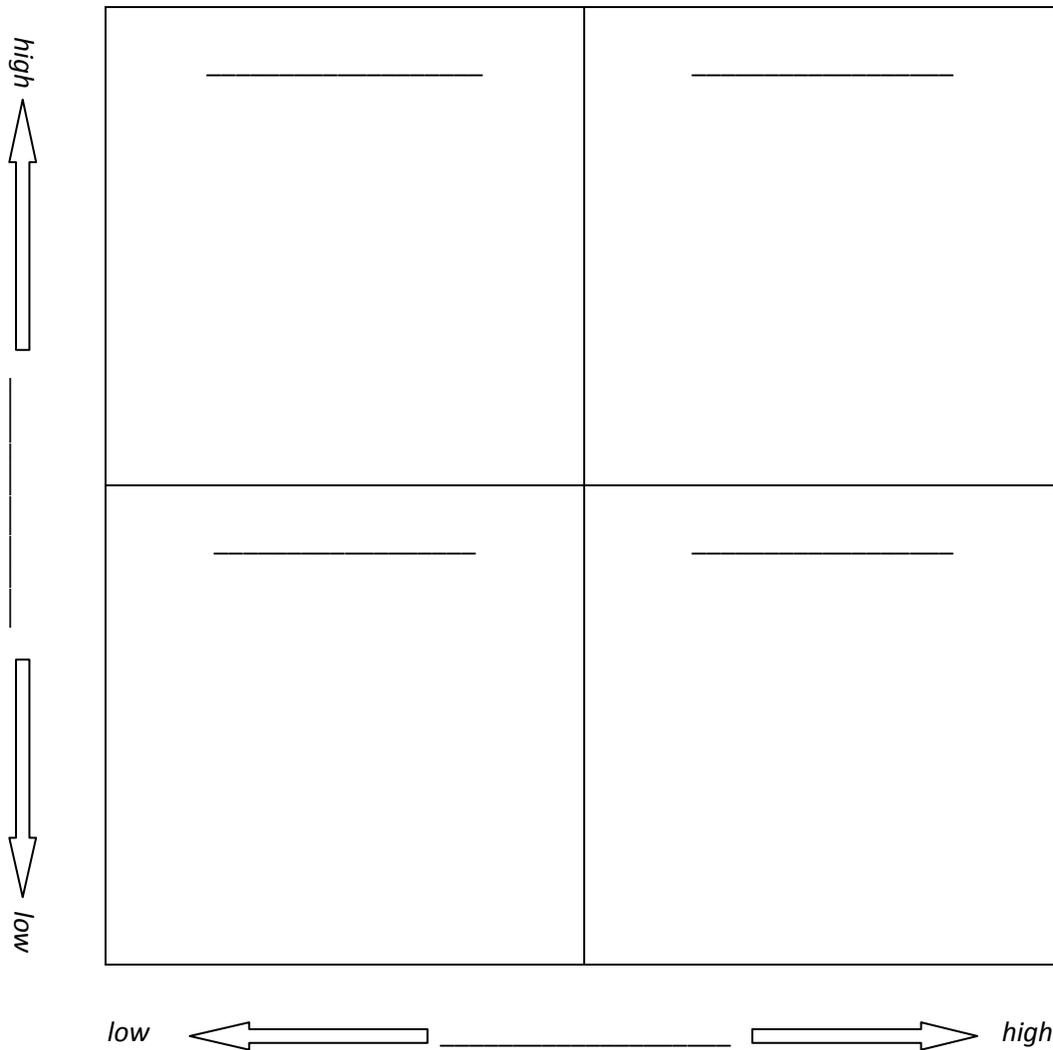
Instructions:

1. Fill in the blank spaces on each axis with the desired criteria
2. Label each quadrant according to the axes
3. Place competing programs/activities into the appropriate quadrant

Hanlon Method Worksheet

Health Indicator	A Size	B Seriousness	C Effectiveness of Intervention	D Priority Score (A + 2B)C	Rank

Instructions:

1. Fill in items to be prioritized under the 'Health Indicator' column.
2. Fill in the 'A,' 'B,' and 'C' columns with the assigned ratings for each health indicator with respect to the three criteria.
3. Calculate the priority score using the formula in column 'D.'
4. Rank the health indicators with the highest priority score receiving a rank of '1.'

Prioritization Matrix

Health Indicator	_____	_____	_____	Priority Score

Instructions:
1. Fill in items to be prioritized under the 'Health Indicator' column.
2. Fill in the blank spaces in columns 2, 3 and 4 with the chosen criteria.
3. Fill in the ranks for each health indicator under the appropriate criteria.
4. Calculate the priority score by adding the rankings in each row.

[i] Health People 2010 Toolkit. Setting Health Priorities and Establishing Objectives. Available at http://www.healthypeople.gov/State/toolkit/priorities.htm. Accessed February 9, 2009.

[ii] Public Health Foundation. Priority Setting Matrix. Available at http://www.phf.org/infrastructure/priority-matrix.pdf. Accessed February 9, 2010

[iii] American Society for Quality. Evaluation and Decision Making Tools: Multi-voting. Available at http://www.asq.org/learn-about-quality/decision-making-tools/overview/mutivoting.html. Accessed December 2, 2009.

[iv] Duttweiler, M. 2007. *Priority Setting Tools: Selected Background and Information and Techniques*. Cornell Cooperative Extension.

[v] American Society of Quality. Idea Creation Tools: Nominal Group Technique. Available at http://www.asq.org/learn-about-quality/idea-creation-tools/overview/nominal-group.html. Accessed December 2, 2009.

[vi] National Association of County and City Health Officials. 1996. Assessment Protocol for Excellence in Public Health: Appendix E.