

# CHIP Handbook

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A guide for All in for Health: Jackson & Josephine Counties  
regional CHIP work groups

*Work group chair edition*



MARCH 2019

# Table of Contents

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What is a Community Health Improvement Plan (CHIP)?.....	1
What is Mobilizing for Action through Planning and Partnerships (MAPP)?.....	2
CHIP Terminology.....	4
Roles & Responsibilities.....	7
Vision and Values.....	9
Step 1: Form Work Groups.....	10
Step 2: Select Goals.....	11
Step 3: Set Population Outcome Measures.....	13
Step 4: Determine Strategies.....	14
Record Keeping.....	16
Data Development Agenda.....	16
Move it Upstream and Down the Pyramid.....	17
Core Team Contact Information.....	18
QI Toolbox.....	19
The 5 Whys.....	20
Cause & Effect (aka Fishbone) Diagram.....	23
Affinity Diagram.....	25
Nominal Group Technique.....	27
Prioritization Matrix.....	29
Driver Diagram.....	31
References.....	33

## What is a Community Health Improvement Plan (CHIP)?

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Improving community health is not something that any one agency or organization can accomplish. It involves planning and collective action to generate solutions to community problems.

A Community Health Improvement Plan (CHIP) is a community-based blueprint for improving population health and public health system performance. It lays out a long-term, strategic effort to address health-related issues in the community. It looks beyond individual organizations' priorities and actions, and instead outlines ways *multiple* organizations will contribute to addressing the community's priorities to improve the community's overall health and well-being.

The CHIP is developed after the Community Health Assessment (CHA) and is based on the CHA results. The CHA provides data and information to identify community health issues which are then prioritized by the community. The CHIP is used to describe how community stakeholders will address the health priorities identified through the CHA.

The MAPP process, which our partnership has selected to use (see p. 2), specifies that the CHA and CHIP be developed as community-based documents to be used by all the stakeholders involved in the process. The regional collaborative CHIP does not in any way prevent a participating organization from also working on other community health priorities. It is recommended that each organization involved in the CHIP should develop an organization-specific plan (such as a strategic plan, organization-specific CHIP, or work plan) to address the CHIP actions which the organization elects to engage in as well as other priorities and strategies specific to that organization.



# What is Mobilizing for Action through Planning and Partnerships (MAPP)?

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Mobilizing for Action through Planning and Partnerships (MAPP) is a community-driven strategic planning process for improving community health. It provides a framework for convening partners, prioritizing health issues, identifying resources to address them, and taking action to improve community health.

We have selected MAPP as our model in completing this collaborative assessment and improvement planning work because:

- It is a national gold-standard process for developing community health assessments and community health improvement plans
- It is a flexible framework that can be tailored by communities to fit their needs
- There are many free and low-cost resources available to support us in the use of this model
- MAPP specifically focuses on the local population health system, providing guidance and structure for shifting from agency-focused plans to a community/system-focused plan
- It provides the structure to help move us beyond simply a shared assessment process to a shared improvement plan
- Multiple agencies within the collaboration have some familiarity with the model as they have implemented modified-MAPP processes in the past

The six MAPP phases are:

1. **Organize for Success/Partnership Development.** Community members and agencies form a partnership.
2. **Visioning.** The partnership creates a common understanding of what it would like to achieve.
3. **The 4 MAPP Assessments.** Qualitative and quantitative data are gathered to provide a comprehensive picture of health in the community.
4. **Identify Strategic Issues.** Data are analyzed to uncover priorities that need to be addressed in order for the community to achieve its vision.
5. **Formulate Goals and Strategies.** The community identifies goals it wants to achieve and strategies it wants to implement related to strategic issues.
6. **Action Cycle.** The community implements and evaluates action plans to meet goals, address strategic issues, and achieve the community's vision.

We have completed phases 1 – 4. This document will provide guidance on the process to complete phase 5.

The MAPP process is depicted below in the form of a roadmap



## CHIP Terminology

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Terms are often used differently in different settings and contexts, especially when it comes to strategic planning and performance management. It is important to the success of our collective work that we all use a common language.

Below are the terms and definitions that we are using in our CHIP process, along with examples of each.

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**Priority areas** are broad, health-related areas for CHIP work identified through the prioritization process which was informed by CHA data.

**Goals** are long-range statements of desired community health or wellbeing outcomes. Each priority area should have one or more goals.

**Population outcome measures** are indicators which help to quantify the achievement of a goal. Each goal should have one or more population outcome measures.

**Strategies** are general approaches that will be utilized to achieve a goal. Each goal should have one or more strategies.

**Organizational objectives** are short to intermediate outcome statements of desired organizational or collaborative activities. They should be Specific, Measurable, Achievable, Relevant, and Time-oriented (SMART).

**Action steps** are activities that need to be completed to accomplish an organizational objective. They have specific timelines and assigned responsibility.

**Process measures** are indicators that help to quantify the achievement of an action step of organizational objective.

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	Example 1	Example 2
<b>Priority area</b>	Communicable Disease	Chronic Disease Risk Factors
<b>Goal</b>	Reduce rates of sexually transmitted infections in the region* Increase childhood vaccination rates	Decrease rates of obesity in the region* Increase fruit and vegetable consumption
<b>Population outcome measure</b>	County syphilis rates per 100,000 Regional congenital syphilis rates	Age-adjusted percent adults reported obese by county Percent 11 <sup>th</sup> grade students reported to be obese by county
<b>Strategy</b>	Increase access to bicillin Increase screening of high-risk populations Promote condom use Implement comprehensive sexual health education in schools	Implement healthy vending policies in regional schools and workplaces Increase access to farmer's markets and community gardens Increase safety and completeness of sidewalk and bike routes within communities to encourage active transportation
<b>Organizational objective</b>	By December 31, 2020, organization X will acquire the appropriate board of pharmacy license to distribute bicillin to other healthcare organizations.  By July 1, 2021, 2 addiction treatment facilities in county Y will implement comprehensive STI screening, including chlamydia, gonorrhea, syphilis, and HIV for all persons entering treatment.	By January 31, 2021, collaborative Z will have distributed model vending policies and policy impact statements to 25 organizations in County A.  By June 1, 2022, organization W will work with communities to create 5 new community gardens.
<b>Action step</b>	Conduct research on requirements for board of pharmacy license that allows distribution  Assess barriers to implementing universal comprehensive STI screening at entrance to residential addictions treatment	Research model policies and prepare a written summary Contact worksite HR directors to set up meetings Identify potential neighborhoods for new community gardens
<b>Process measure</b>	Number of bars in city X distributing free condoms Number of hook-up apps running collaborative W's messaging campaign promoting STI testing	Number of organization X clients redeeming benefits at local farmer's markets Number of worksites in adopting a new healthy workplace policy

\* indicates goal utilized for the remainder of the example

This figure illustrates how the parts of the CHIP fit together



\*Organizational objectives have associated process measures; action steps may have associated process measures.

## Roles & Responsibilities

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It is important to the success of the CHIP that everyone understand their role. Specific responsibilities associated with different partnership roles are listed below. If you have any questions about your responsibilities within the CHIP partnership, please reach out to any member of the core group (see contact information on p. 18)

### JRHA Board & Executive Committee

- Hold ultimate responsibility for CHIP process/partnership success
- Hire/assign project coordinator
- Provide oversight for project coordinator and Steering Committee
- Secure needed financing and resources
- Brand and promote effort within the community

### Project Coordinator (Angela Warren)

- Coordinate plan/partnership activities (handle day-to-day work)
- Serve as the primary point of contact for the plan & partnership
- Lead Steering Committee meetings
- Provide oversight and support for work group chairs
- Report to JRHA on plan/partnership activities and needs
- Ensure follow-up on individual and organizational commitments & responsibilities

### Core Team (Belle Shepherd, Caryn Wheeler, & Andrea Krause)

- Assist project coordinator in planning, facilitating, and orchestrating plan & partnership activities
- Serve as subject matter experts on CHIP process
- Provide process & facilitation support for work groups

### Work group chairs

- Create agendas and lead work group meetings
- Facilitate the parts of the CHIP process assigned to work groups
- Identify and recruit work group participants
- Report work group progress and needs to the project coordinator and Steering Committee

### Work group members

- Participate in work group meetings and activities
- Assist with specific tasks as needed by work group chair
- Help identify additional community initiatives or individuals working towards the same goals/strategies and create connections
- Identify opportunities for collaboration with other individuals/ organizations
- Actively learn about the evidence-base for work group topic of focus

### Steering Committee members

- Serve as CHIP/partnership representative for respective organization
  - Voice organizational needs to the project coordinator and steering committee
  - Communicate with organizational leadership regarding CHIP activities
  - Maintain awareness of the spectrum of organization's activities within the CHIP
- Participate in Steering Committee meetings and activities
- Provide feedback to project coordinator and core group on CHIP process
- Oversee development of CHIP documents and reports of progress
- Monitor CHIP progress
- Assist with specific tasks associated with the CHIP as needed by project coordinator and core group
- Serve as CHIP champions within respective organizations and within the community

## Vision and Values

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Our vision describes the ultimate aspirational result that we are collectively working toward with our health improvement work. Our values describe the core principles that guide us along the way. As you lead work groups through the process to select goals, population outcome measures, and strategies, keep the partnership's vision and values a central focus.

Our Vision:

**Our communities are healthy, inclusive, engaged, and empowered. Everyone lives in an environment that supports health and has access to the resources they need for well-being.**

Our Values:

**Equity.** Committing to tackling root causes of inequity to ensure health and well-being are within everyone's reach.

**Inclusive Community Voice.** Engaging diverse populations and perspectives to keep community voice central throughout our process.

**Collaboration.** Working together respectfully to seek common ground and build meaningful partnerships for the benefit of the community.

**Accountability.** Meeting responsibilities to partners and the community by acting with transparency and integrity.

**Communication.** Communicating openly, honestly, and respectfully with partners and the public.

## Step 1: Form Work Groups

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Work groups will be the primary bodies responsible for identifying the goals, population outcome measures, and strategies under their respective priority areas. The first step in your work as a work group chair is to finalize a workgroup roster. At this stage, work groups should be restricted to ideally 8-12 persons, 15 persons maximum. The purpose for this is to ensure that the work of deciding on goals, population outcome measures, and strategies can be accomplished according to our timeline. Later in the process, when we are putting together action plans, the work groups will be opened up to anyone who is interested.

Names of potential work group members will come from:

- Participants in the February 20<sup>th</sup> meeting
- List of names brainstormed at the February 20<sup>th</sup> meeting
- List of names from Steering Committee organizations submitted to Angela in response to an e-mail request

In building work group rosters, please consider the following:

- Subject matter expertise of potential members
- Representation of both Jackson and Josephine County
- Balance between various types of stakeholders
- Inclusion of community advisory committee members
- Prioritization of Steering Committee organizations over other organizations/ stakeholders

Keep in mind that you can still engage others in the process by soliciting ideas, advice, or feedback outside of work group meetings and/or at very specific parts of the process.

Once you have a draft work group roster, please submit it to the core team for review and discussion prior to reaching out to potential participants. The core team is responsible for ensuring that Steering Committee organization needs and participation are balanced across the work groups.

## Step 2: Select Goals

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Once you have finalized and confirmed your roster of work group participants, the next step is working with your work groups to select one or more goals for your priority area. A goal statement is used to communicate the intended health improvement result to stakeholders and community by describing, in broad terms, the desired change.

As you prepare to lead your work groups, you will need to determine how you want to approach this work including the forum and duration (e.g. one-day retreat, series of meetings, etc.) and the overall process you will use. Process recommendations are outlined below.

### Start with the desired results

One way to begin thinking about goals is to brainstorm with your work group about what ultimate results we would like to achieve within the priority area.

#### **Questions to Ask:**

- What are the results we want for our population?
- What does our overall vision look like in the context of our priority area?
- How would we know if we achieved those results?
- How would we experience the results we want?

### Identify and characterize the problem(s)

Review the CHA and other community data available to identify specific issues within the priority area.

#### **Questions to Ask:**

- What are we currently seeing/experiencing?
- How does what we see currently compare to our vision or desired results?
- How would we describe, in general terms, the problems we are experiencing?

## Conduct a root cause analysis

A root cause analysis is used to dig deeper into problems and see what underlies the issue. This will help strategic thinking concerning the best ways to address the priority in the community and ensure that the “root” or upstream cause of the problem is addressed instead of just the symptoms. Conduct a root cause analysis for one or all of the identified problems within your priority area.

### **Question to Ask:**

- What is causing or contributing to this issue in our region?

Quality improvement (QI) tools that are useful in conducting a root cause analysis include Cause & Effect Diagrams (aka Fishbone Diagrams), Affinity Diagrams, and The 5 Whys. More information on how to use these tools, along with templates and worksheets, can be found in the QI Toolbox section of this handbook (starting on p. 19).

## Draft goals

Examine the list of desired results, problems, and roots causes generated by the group’s work. Use these lists to construct a set of goal statements. Goal statements may be shaped around something that needs to change (e.g. Decrease rates of sexually transmitted infections; Increase fruit and vegetable consumption) or a desired state (e.g. All children succeed in school). They may apply to the whole population or target a specific subpopulation.

All goals must have at least one associated population outcome measure; it may be helpful to complete at least some initial work on Step 3: Set Population Outcome Measures before finalizing your list of goals.

It may be necessary to pare down the number of final goals. Prioritization tools such as a prioritization matrix or nominal group technique may be helpful in making final determinations (see the QI Toolbox for more information on these prioritization techniques).

## Step 3: Set Population Outcome Measures

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Population outcome measures are indicators which help to quantify the achievement of a goal. Having measures associated with each goal give us a way to evaluate the impact of our collective actions under the CHIP. Each goal should have one or more population outcome measures. For some goals, the population outcome measures may be obvious. Determining population goals for other goals may take more thought.

### Brainstorm Potential Measures

The first step in determining potential population outcome measures for each goal is to broadly consider how achievement of the result stated in the goal could be assessed.

#### Questions to Ask:

- How will we know we are making a difference related to this goal?
- What can be tracked over time to demonstrate progress?

### Evaluate and Select Measures

Once a list of measures that could be used has been generated, consider how well the measures fit the goal and how user-friendly the indicator is for the purposes of the CHIP partnership before making your final selection(s).

#### Questions to Ask:

- Is this measure commonly used as a standard measure to reflect the desired change (at national, state, and community levels)?
- Does the measure communicate to a broad and diverse audience?
- Can the measure stand as a proxy or representative for the goal?
- Is timely and quality data for this measure available on a reliable and consistent basis?

## Step 4: Determine Strategies

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After your work group has selected goals and population outcome measures for your priority area, it is time to determine which strategies you will use to achieve your goals. Intervention strategies outline the types of approaches to be used to realize each goal. Each goal should have one or more strategies. The goal states what is going to be done. The strategies state how it will be done.

As strategies are selected, we want to make sure that we are aiming upstream at community-level impact where possible. For this reason, we are asking each goal include a prevention-based strategy and each priority area to include at least one policy-based strategy.

### Build a Driver Diagram

A driver diagram is a tool to help organize and visualize what “drives” or contributes to achieving a particular aim. It provides a way of systematically laying out potential areas of work for achieving the goal and showing how they relate to each other and to the ultimate aim, so they can be discussed and agreed on collaboratively by the group. More information on how to construct and use a driver diagram can be found in the QI Toolbox.

### Review the evidence base

Review the literature and other existing resources for evidence-based and best-practice interventions to affect drivers and accomplish the goal(s). Look to what has worked in other communities. In addition, tap into collective knowledge of past local actions – what has and hasn’t worked here?

Resources for Evidence-Based and Best Practices include:

- County Health Rankings & Roadmaps, What Works for Health: <http://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health>
- CDC Guide to Community Preventive Services: <https://www.thecommunityguide.org/>
- Healthy People 2020: <https://www.healthypeople.gov/2020/tools-resources/Evidence-Based-Resources>
- ChangeLab Solutions: <https://www.changelabsolutions.org/>
- SAMHSA Evidence-based Practices Resource Center: <https://www.samhsa.gov/ebp-resource-center>

## Identify Strengths, Opportunities, Current Efforts, Resources, and Potential Barriers

In order to be successful, a CHIP should be grounded in what already exists in the community to support the work. For each of the drivers you've identified, brainstorm what strategies are currently being implemented in the community. For other potential strategies identified during review of the evidence base, think about what community strengths, opportunities, and resources could be leveraged and what potential barriers may be faced.

## Evaluate and Select Strategies

Considering your analysis of the drivers and review of the evidence base, as well as your evaluation of the local strengths, opportunities, and potential barriers for each strategy, select at least one strategy per goal. The final list of strategies within your priority area should represent a balanced approach and incorporate the additional considerations listed below. As with the selection of final goals, prioritization tools may be useful to your group in making final decisions.

### Questions to Ask:

- Is there a balance of short-, medium-, and long-term strategies?
- Does the list include some no- or low-cost strategies?
- Do at least some of the strategies address prevention?
- Do at least some of the strategies move beyond individual impact to community-level impact?
- Is at least one strategy related to policy or legislative action?
- Is there alignment with current efforts and strategies in the community?
- Could a broad range of community partners see a place for themselves in this work using these strategies?

## Record Keeping

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It is important to keep records of all work group activities. Please make sure that someone at each meeting takes minutes using the meeting minute template provided by the core team. After they are complete, review the minutes for accuracy and then send them on to your core team representative.

In addition to meeting minutes, please make sure to save the results of any root cause analysis or driver diagram construction and forward them to your core team representative. These will be very useful in compiling the CHIP document.

## Data Development Agenda

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During the work group's process to select goals, population outcome measures, and strategies, it is likely that discussion will come up around additional data that the work group would like to have to help in evaluating the current situation and guiding decision-making. While it is important to keep the process moving forward and not get hung up on what we wish we had, it is also important to note what additional data would be helpful as this will help us as we plan the next CHA. Therefore, please be sure to note any new or improved data needs identified by your work group and pass this on to the core team. The collective list from all three work groups will later be used by the Steering Committee in creating a data development agenda.

## Move it Upstream and Down the Pyramid

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Overall, the most effective interventions for changing population health are those that address the social determinants of health and have community-level impact. Two frameworks for examining the impact level of interventions are the stream model and the health impact pyramid. The following are recommended reading on each:

- Stream Model: [https://www.healthaffairs.org/doi/10.1377/hblog20190115.234942/full/?mc\\_cid=93a39c36d1&mc\\_eid=b44403f656](https://www.healthaffairs.org/doi/10.1377/hblog20190115.234942/full/?mc_cid=93a39c36d1&mc_eid=b44403f656)
- Health Impact Pyramid: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2836340/>

As you lead your work groups through this phase of the process, keep an eye out for opportunities to move discussions and actions “upstream” and “down the pyramid” toward higher levels of impact on population health.

## Core Team Contact Information

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Have questions about the process? Contact your core team!

**Angela Warren**

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541-601-3984

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# QI Toolbox

*Quality improvement tools included in this toolbox:*

The 5 Whys

Cause & Effect (aka Fishbone) Diagram

Affinity Diagram

Nominal Group Technique

Prioritization Matrix

Driver Diagram

# The 5 Whys

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## What Are the 5 Whys?

The 5 Whys are one way to systematically identify root causes to solve a specific problem. It may also help you determine how different root causes of an issue are related to one another. It should focus on the whys and not be used to identify who or to place blame on a person or organization. It is a systematic way to solve problems and to consider cause-effect relationships.

## How Do the 5 Whys Work?

The 5 Whys are a set of questions that help get beyond the surface of a problem and peel away the layers of symptoms in order to identify the root causes of a problem or condition. This is done by asking the question “why?” five times in order to get to the root cause. Sometimes fewer questions identify the root cause and sometimes you may need to ask the question more than five times. The questioning can stop once the group working together on the issue agrees that it’s identified the root cause of a problem.

*Here’s how it works:*

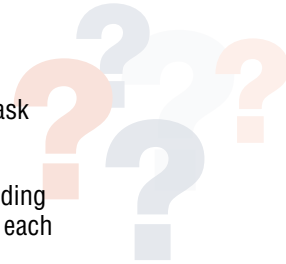
1. Write down the specific issue. Ensure that the issue is the current condition. This helps the group formalize the problem and ensure that they agree on and focus on the same problem. Use data to describe the issue when possible (e.g., Happy County’s teen pregnancy rates rose 15 percent from 2011 to 2012).
2. Ask why the problem is occurring. Write the answer below the problem.
3. If the answer provided does not identify the root cause of the problem that you wrote in the first step, ask why the problem is occurring again and write that answer down.
4. Complete the second and third steps until the group agrees that the problem’s root cause is identified.

The 5 Whys can be used on their own or along with a fishbone diagram. A fishbone diagram helps explore all potential root causes of a particular issue or problem. Once you identify the many potential causes or issues by using a fishbone diagram, then you can use the 5 Whys to closely examine each one to ensure you identify the root cause(s).

*-- excerpted from NACCHO’s Mobilizing for Action through Planning and Partnerships (MAPP):  
User’s Handbook*



# Determine Root Causes of Health Issues: Using the 5 Whys



## 5 Whys Worksheet

Use the worksheet below and on the next page to guide you in completing the 5 Whys. If needed, add entries to ask the question a few more times until the group agrees that the root cause of the problem or issue is identified.

Once the group agrees that the root cause of the problem has been identified, the team can move forward in deciding what action to take to act upon the root cause. Add additional entries to the worksheet to allow you to do this for each key problem you're facing.

PROBLEM OR ISSUE: \_\_\_\_\_

1. Why is this problem happening? \_\_\_\_\_

\_\_\_\_\_

2. Why is the problem stated in #1 happening? \_\_\_\_\_

\_\_\_\_\_

3. Why is the problem stated in #2 happening? \_\_\_\_\_

\_\_\_\_\_

4. Why is the problem stated in #3 happening? \_\_\_\_\_

\_\_\_\_\_

5. Why is the problem stated in #4 happening? \_\_\_\_\_

\_\_\_\_\_

PROBLEM OR ISSUE: \_\_\_\_\_

1. Why is this problem happening? \_\_\_\_\_

\_\_\_\_\_

2. Why is the problem stated in #1 happening? \_\_\_\_\_

\_\_\_\_\_

3. Why is the problem stated in #2 happening? \_\_\_\_\_

\_\_\_\_\_

4. Why is the problem stated in #3 happening? \_\_\_\_\_

\_\_\_\_\_

5. Why is the problem stated in #4 happening? \_\_\_\_\_

\_\_\_\_\_





# Determine Root Causes of Health Issues: Using the 5 Whys

PROBLEM OR ISSUE: \_\_\_\_\_

1. Why is this problem happening? \_\_\_\_\_

2. Why is the problem stated in #1 happening? \_\_\_\_\_

3. Why is the problem stated in #2 happening? \_\_\_\_\_

4. Why is the problem stated in #3 happening? \_\_\_\_\_

5. Why is the problem stated in #4 happening? \_\_\_\_\_

PROBLEM OR ISSUE: \_\_\_\_\_

1. Why is this problem happening? \_\_\_\_\_

2. Why is the problem stated in #1 happening? \_\_\_\_\_

3. Why is the problem stated in #2 happening? \_\_\_\_\_

4. Why is the problem stated in #3 happening? \_\_\_\_\_

5. Why is the problem stated in #4 happening? \_\_\_\_\_



# Cause & Effect (aka Fishbone) Diagram

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## Description

A tool that displays multiple potential causes for a problem. It can be used to organize the results from an Affinity diagram [or brainstorming or 5 whys exercise] and helps identify stakeholder ideas about the causes of problems. It allows the user to immediately categorize ideas into themes for analysis or further data gathering. Use it to organize knowledge about the causes of a problem and display the information graphically.

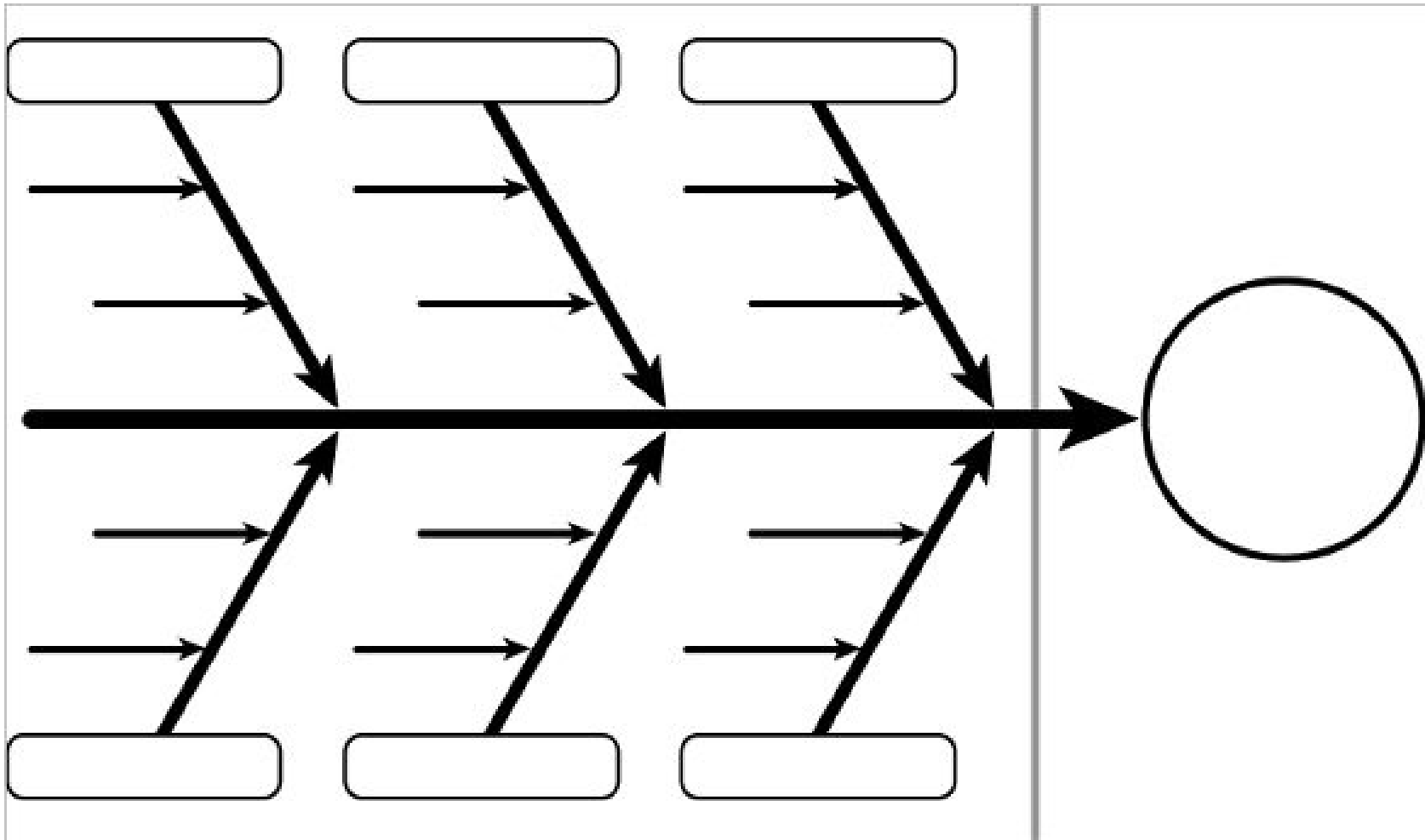
*-- excerpted from Public Health Quality Improvement Encyclopedia*

## Directions

1. Agree on the problem statement (also referred to as the effect). Be as clear and specific as you can about the problem.
2. Generate ideas about the major causes of the problem. Major causes can be created by your team, or your team can use standard categories such as methods/ procedures, information, materials/equipment/technology, people, environment, policy, or incentives.
3. Begin constructing the diagram: on the far right, write the problem in a box. Draw an arrow (backbone) leading to that box. Draw smaller arrows (bones) leading to the backbone, and label the arrows with your major causes.
4. Next, brainstorm minor causes related to each major cause and note them on the diagram by placing lines on each of the major bones.
5. Ask “why does this happen?” about each cause. Write sub-causes branching off the cause branches. Continue to ask why and generate deeper levels of causes.

## Additional Resources

- Video: <https://www.youtube.com/watch?v=wrVSpKt6veU>
- Reading:
  - <https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/fishbonerevised.pdf>
  - <https://www.processexcellencenetwork.com/lean-six-sigma-business-performance/columns/the-four-steps-to-constructing-a-cause-and-effect>



# Affinity Diagram

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## Description

The affinity diagram organizes a large number of ideas into their natural relationships. It is the organized output from a brainstorming session. Use it to generate, organize, and consolidate information related to a product, process, complex issue, or problem. After generating ideas, group them according to their affinity, or similarity.

## Process Steps

**Materials needed:** sticky notes or cards, marking pens, large work surface (wall, table, or floor).

**Step 1:** Record each idea with a marking pen on a separate sticky note or card

Randomly spread notes on a large work surface so all notes are visible to everyone. The entire team gathers around the notes and participates in the next steps.

*Tips: Use markers so words can be read clearly even from a distance. With regular pens, it is hard to read ideas from any distance. Written ideas should be between three and seven words long.*

**Step 2:** Look for ideas that seem to be related in some way and place them side by side

Attempt to look for relationships between individual ideas and have team members simultaneously sort the ideas (without talking) into five to 10 related groupings. Repeat until all notes are grouped. It's okay to have "loners" that don't seem to fit a group. It is also okay to move a note someone else has already moved. If a note seems to belong in two groups, make a second note.

*Tips: It is very important that no one talk during this step. The focus should be on looking for and grouping related ideas. It is also important to call these "groupings." Do not place the notes in any order or determine categories or headings in advance.*

**Step 3:** Begin a discussion with your team

From these relationships, attempt to define categories and create summary or header cards for each grouping or category. You can discuss the shape of the chart, any surprising patterns, and especially reasons for moving controversial notes. Make changes and move

ideas around as necessary. When ideas are grouped to the team's satisfaction, select a heading for each group. To do so, look for a note in each grouping that captures the meaning of the group. Place it at the top of the group. If there is no such note, write one. Often it is useful to write or highlight this note in a different color.

*Tips: Header Cards should clearly identify the common thread for all groupings and should be descriptive of that thread.*

**Step 4:** Combine groups into "supergroups," if appropriate

Assign all ideas to the identified categories by placing ideas under header cards.

*Tip: Base assignment on "gut feel," not through contemplation.*

*-- excerpted from American Society of Quality (ASQ) website*

## Additional Resources

- Reading:
  - <https://www.sixsigmadaily.com/the-affinity-diagram-tool/>
  - <https://www.balancedscorecard.org/portals/0/pdf/affinity.pdf>
- Video: <https://www.youtube.com/watch?v=jvTSsJrDZec>

# Nominal Group Technique

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## Description

A tool used to quickly rank team member preferences about the importance of an idea/issue related to an identified problem. Use it to narrow a large list into the top priorities and to create consensus for a solution.

## Process Steps

1. The team leader identified the problem, situation, or objective and writes it on a large piece of paper
2. The team will brainstorm ideas about how to solve the problem and list them on the same paper
3. Discuss and clarify ideas and identify which ideas will be ranked
4. Create a matrix with the generated ideas as row headers and team member names as column headers
5. Team members will individually score the ideas and assign the highest number to the idea that they feel will have the highest impact. [or other prioritization criteria]
6. Document all scores in the matrix and sum the scores for each idea

*-- excerpted from Public Health Quality Improvement Encyclopedia*

## Additional Resources

- Video: <https://www.youtube.com/watch?v=RaN2iNegrZg>
- Reading:
  - <https://asq.org/quality-resources/nominal-group-technique>
  - <https://www.balancedscorecard.org/portals/0/pdf/descntls.pdf>
  - <https://www.cdc.gov/healthyyouth/evaluation/pdf/brief7.pdf>
  - <https://asq.org/quality-resources/multivoting>

Note: if you already have a brainstormed list, you may elect to start at step 3 and simply conduct the multivoting part of the process

	Participant 1	Participant 2	Participant 3	Participant 4	Total
Idea 1					
Idea 2					
Idea 3					
Idea 4					
Idea 5					

*Example: What should our outcome area of focus be for the Communicable Disease Priority Area?*

	Sally	Joe	Jane	Steve	Total
Sexually Transmitted Infections	5	4	2	5	16
Hepatitis	3	5	5	4	17
HIV	4	2	1	3	10
Respiratory Diseases including flu	2	1	3	1	7
Foodborne illness	1	3	4	2	10

# Prioritization Matrix (aka Decision Matrix Analysis)

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## What is a Prioritization Matrix?

A prioritization matrix is a tool designed to compare options against several weighted criteria in order to make a selection.

## Directions

1. Generate a list of options.
2. Develop criteria that are important for evaluating your options/making your decision. Gather consensus on criteria definitions. You should have a minimum of three criteria to use this tool.
3. Assign weights to each of the criteria. Criteria considered to be more important are given higher multipliers.
4. Enter options and criteria into the matrix. List the options down the left side and criteria and weights across the top.
5. Evaluate each option, one-at-a-time, on each of the criteria. Use a scale (1, 3, 7, 9 recommended) to rate the options according to each criteria. Do not compare or rank across options – just work through one option at a time comparing it to each criteria. Record the rating in the intersecting cell.
6. Multiply the rating by the criteria weights and add up the totals. Use the summary totals to help drive decisions.

## Additional Resources

- Reading, video, & template:  
[https://www.mindtools.com/pages/article/newTED\\_03.htm](https://www.mindtools.com/pages/article/newTED_03.htm)

	Criteria 1 (criteria weight)	Criteria 2 (criteria weight)	Criteria 3 (criteria weight)	Total
Option 1				
Option 2				
Option 3				
Option 4				
Option 5				
Option 6				

*Example: What should our outcome area of focus be for the Communicable Disease Priority Area?*

	Total Disease Burden (x3)	Increasing Trend (x2)	Cost to Healthcare System per case (x1)	Total
Sexually Transmitted Infections	7(x3) = 21	9 (x2) = 18	3 (x1) = 3	42
Hepatitis	9 (x3) = 27	3 (x2) = 6	9 (x1) = 9	42
HIV	3 (x2) = 6	1 (x2) = 2	9 (x1) = 9	17
Influenza	7 (x3) = 21	3 (x2) = 6	3 (x1) = 3	30
Foodborne illness	1 (x3) = 3	1 (x2) = 2	1 (x1) = 1	6
<i>Scale (1,3,7,9)</i>	<i>1 = low burden 9 = high burden</i>	<i>1= decreasing trend 9 = steeply increasing trend</i>	<i>1 = low cost 9 = high cost</i>	

# Driver Diagram

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## Description

A driver diagram is a visual display of a team's theory of what "drives," or contributes to, the achievement of a project aim. This clear picture of a team's shared view is a useful tool for communicating to a range of stakeholders where a team is testing and working.

A driver diagram shows the relationship between the overall aim of the project, the primary drivers (sometimes called "key drivers") that contribute directly to achieving the aim, the secondary drivers that are components of the primary drivers, and specific change ideas to test for each secondary driver.

*-- excerpted from the Institute for Healthcare Improvement website*

## Definitions

- Aim – clearly articulated goal of the work which describes the desired outcome
- Primary Drivers – system components or factors which contribute directly to achieving the aim
- Secondary Drivers – lower-level components, factors, or actions which affect the primary drivers

*-- excerpted from Center for Medicare & Medicaid Services, Defining and Using Aims and Drivers for Improvement: A How-to Guide*

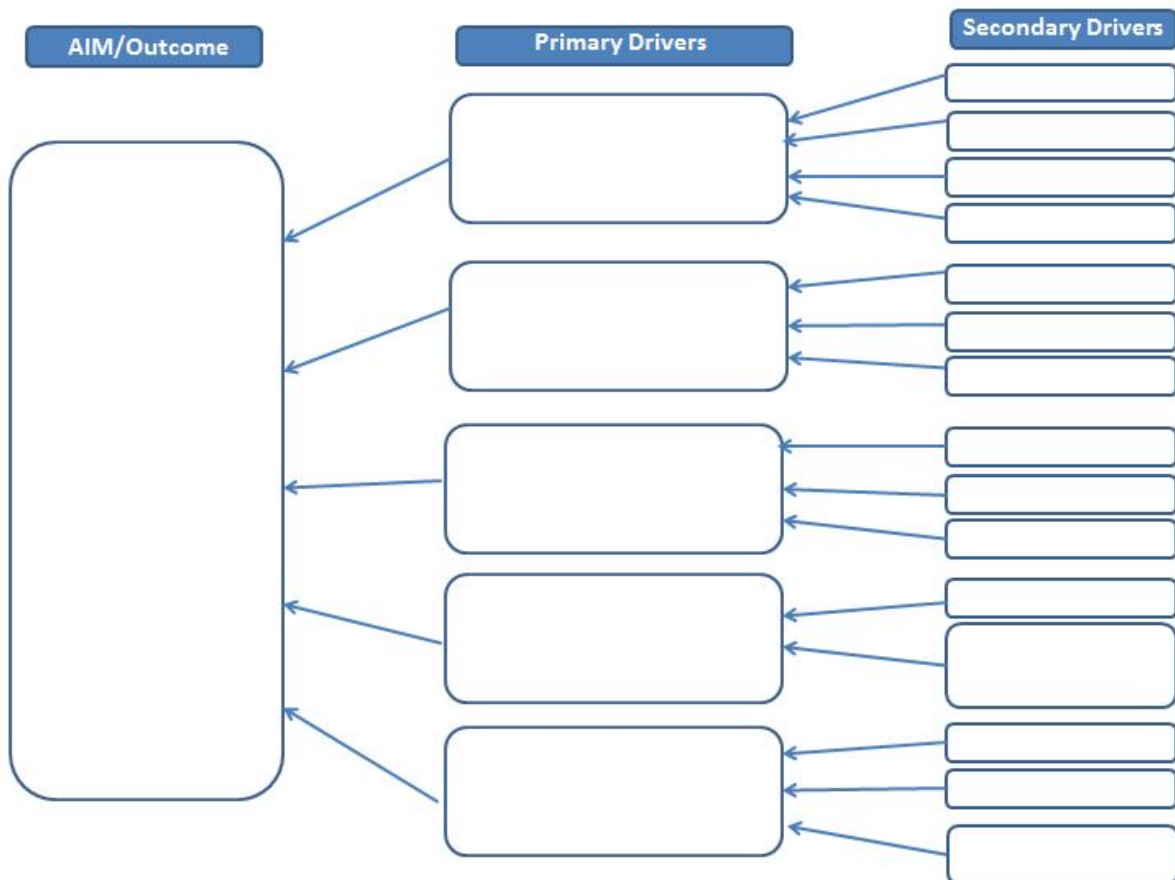
## Process Steps

1. Identify a clearly defined aim
2. Brainstorm potential drivers – the areas where change will impact your aim. Concentrate on generating ideas for drivers at this stage, don't try to allocate into primary or secondary straight away
3. Once you've completed the brainstorm, then cluster the ideas to create an agreed-upon set of drivers
4. Now you can identify the links between the drivers – creating primary, secondary, and even tertiary drivers – and set these out in the diagram format
5. Add action or intervention ideas for each driver

*-- excerpted from Health Quality & Safety Commission New Zealand website*

## Additional Resources

- Reading:
  - <http://www.hqontario.ca/Portals/0/Documents/qi/qi-driver-diagram-instruction-sheet-en.pdf>
  - <https://innovation.cms.gov/files/x/hciatwoaimsdrvrs.pdf>
  - <http://www.cec.health.nsw.gov.au/quality-improvement/improvement-academy/quality-improvement-tools/driver-diagrams>
- Videos & Template: <https://qi.elft.nhs.uk/resource/driver-diagrams/>



## References

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*The following reference served as an overall model and inspiration for this work. In addition, content for pages 1, 6, and 11-15 were extracted and adapted from this reference.*

Pezzino & Hartsig. 2015. *Community Health Improvement Planning (CHIP) Handbook*. Kansas Health Institute, publication number KHI/15-05.

### Additional References, Main Body

Friedman, Mark. 2015. *Trying hard is not good enough: How to produce measurable improvements for customers and communities*. PARSE Publishing.

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*Note: In addition to being a general resource, content for pages 2-3 and 20-22 were excerpted and adapted from this reference*

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American Society for Quality (ASQ). "Affinity Map Diagram." <https://asq.org/quality-resources/affinity>. Accessed 3/7/2019

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