

To Think Bigger Thoughts

**Why The Human Cognome Project
Requires Visual Language Tools**

Part 2

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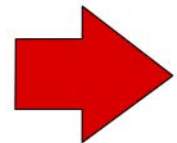


Cross-Boundary Causality Maps

Visual language is basic to what I next want to introduce. I will be showing you several kinds of larger diagrammatic templates that enable us to think bigger thoughts. We call them "knowledge maps."

The Cross Boundary Causality Map is the first kind of template I want to explain. I also call it a "mess" map because it helps people see the interrelationships between what they perceive as problems and their many causes – which often occur in organizations or areas of society outside of the place where the problems are being experienced.

I will show you a case history first.



Mental Health Services Dynamics and Dilemmas

This map was developed by the Multnomah County Task Force on Mental Health. It portrays the way public mental health services are delivered and the major factors that contribute to the problems faced by the different agencies and their customers.

KEY

Read the arrows on this page as "causes" or "links".

Example: Neighborhood concerns to group homes for mentally ill "causes" low number of group homes. Neighborhood concerns to group homes for mentally ill "causes" low number of group homes.

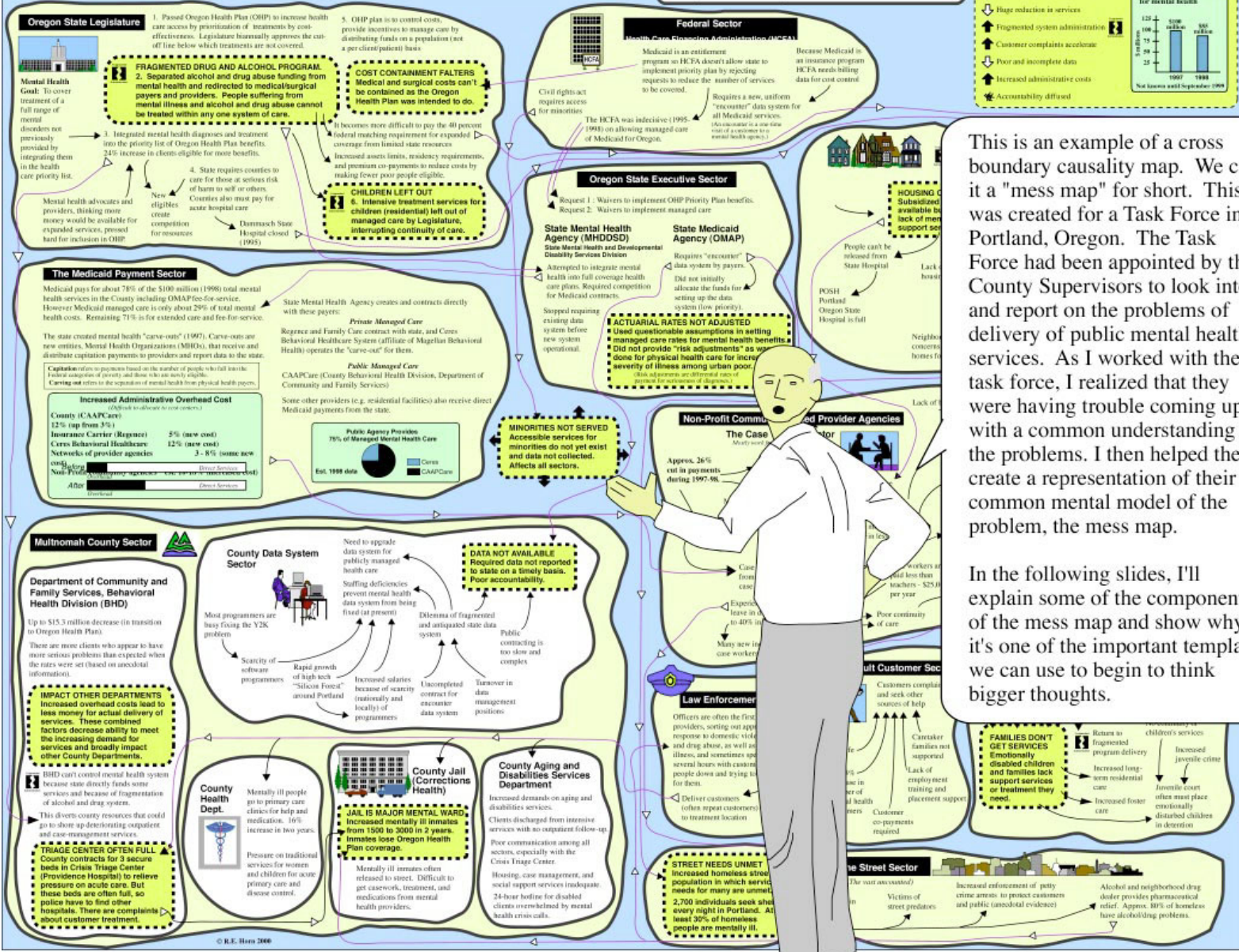
The different colors for the arrows (→, ←, ⇄, ⇆) add tracing of long causal connections. They do not have any other significance.

This "Fragmented Administration" icon is used by the Task Force as a reminder of areas of mental health administration that could benefit from greater administrative integration.

Commissioners' Dilemma

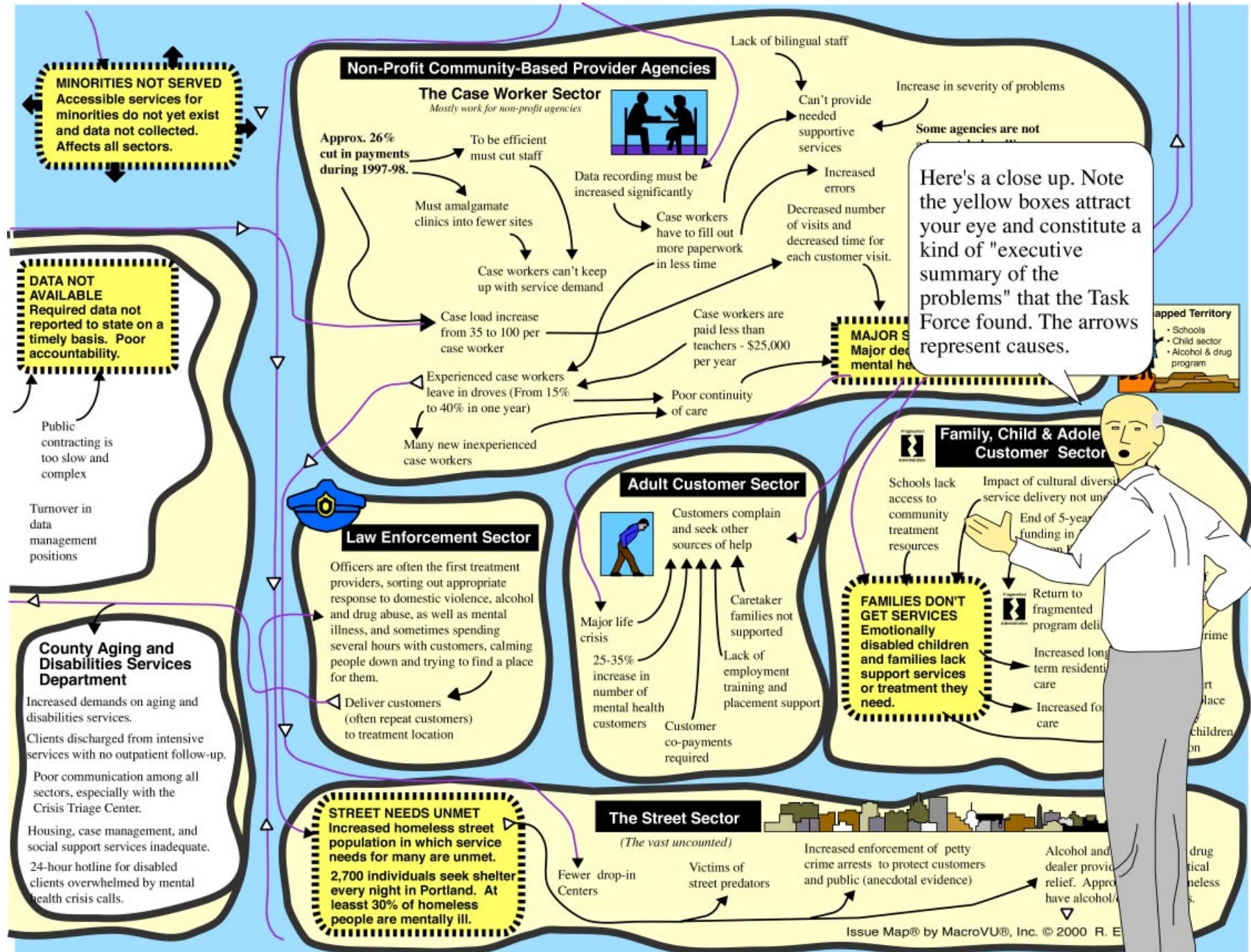
- ↑ More clients eligible for more treatments
- ↑ More diverse customers than the rest of the state
- ↑ More seriously ill clients
- ↓ Less money to serve them
- ↓ Huge reduction in services
- ↓ Fragmented system administration
- ↓ Customer complaints accelerate
- ↓ Poor and incomplete data
- ↑ Increased administrative costs
- ★ Accountability diffused

Up to \$15.3 million less Medicaid funds available for mental health



This is an example of a cross boundary causality map. We call it a "mess map" for short. This was created for a Task Force in Portland, Oregon. The Task Force had been appointed by the County Supervisors to look into and report on the problems of delivery of public mental health services. As I worked with the task force, I realized that they were having trouble coming up with a common understanding of the problems. I then helped them create a representation of their common mental model of the problem, the mess map.

In the following slides, I'll explain some of the components of the mess map and show why it's one of the important templates we can use to begin to think bigger thoughts.



Task force composition

The task force was composed of people from the community: doctors, lawyers, case workers, hospital directors, jailers, psychiatrists, nurses, agency directors, police, housing directors, patient advocates, private sector executives, and representatives from the county and state, etc.

Map purpose

The mess map was used in the social learning process of the community task force who are charged with understanding and recommending solutions to the problems.

Process

We gave them the template slightly filled in and asked them to analyze the problems more deeply and construct a common mental model of the problem. This enabled them to get acquainted with each other's special knowledge and viewpoints. It enabled them to build together and learn together.

Task Force

Components: problems and "blobs"

Problem boxes

Typically cross boundary maps are created to help groups solve problems. The first thing we want you to notice are the problems. The problem boxes are concise descriptions of the problems that the task force has encountered. They are located in the sectors in which the problems have been encountered. Together they serve as an "executive summary" of the problems. Note that visually they are bright yellow, which helps direct the eye immediately to them.

Organizations or sector "blobs." The issues "mapped" by these maps are complex social entities. They may be specific organizations (such as the County Data Processing Department) or sectors (such as the "law enforcement sector"). They are deliberately represented as "blobs" in order to visually suggest that not everything about the sector or group is represented and that the representation is only as complete as the task force creating the map requires. In other words, the mapping conventions permit the creators of the map to *include as part of their representation of their mental models only that which is needed for the task at hand*. Sectors can include government agencies, companies, non-governmental organizations, and other interested groups, etc.

MAJOR SERVICE DECREASE
Major decrease in access to mental health services.

HOUSING CAN'T BE USED
Subsidized housing is available but unused due to lack of mental health support services.

STREET NEEDS UNMET
Increased homeless street population in which services needs for many are unmet. 2,700 individuals seek services every night in Portland. At least 30% of homeless people are mentally ill.



**County Jail
(Corrections
Health)**

JAIL IS MAJOR MENTAL WARD
Increased mentally ill inmates from 1500 to 3000 in 2 years. Inmates lose Oregon Health Plan coverage.

Components: Phenomena, events, and causal arrows inside the "blobs"

Events and phenomena

Descriptions of important causal factors contributing to the issues or problems are described within the blobs. Usually the selection of such events and phenomena is based on the judgment of the analyst or the task force involved. Note that quite informal language is used and that complete sentences are not always required.

Arrows

The arrows show causes or influences as identified by the task force. The arrows may connect events and phenomena and problems with each other and with problem boxes.



Law Enforcement Sector

Officers are often the first treatment providers, sorting out appropriate response to domestic violence, alcohol and drug abuse, as well as mental illness, and sometimes spending several hours with customers, calming people down and trying to find a place for them.

Deliver customers (often repeat customers) to treatment location

Adult Customer Sector



Customers complain and seek other sources of help

Major life crisis

25-35% increase in number of mental health customers (1998)

Customer co-payments required



Caretaker families not supported

Lack of employment training and placement support

U. S. Supreme Court

States will be required to comply with Olmstead Act and provide alternatives to nursing home placements. Upshot: Unknown number of nursing home residents may be affected.



Components: Quantitative data portrayed graphically

Quantitative data. Where needed, quantitative data is provided in the form of bar charts, pie charts and tables. Only data that was immediately relevant to characterizing the problem was presented. We attempted to avoid overloading the map with statistical data that, of course, is abundantly available from government agencies, such as those on these maps. Often the data needed are number of staff, budget size, number of people served.



Up to \$15.3 million less Medicaid funds available for mental health



Not known until September 1999

Public Agency Provides 75% of Managed Mental Health Care



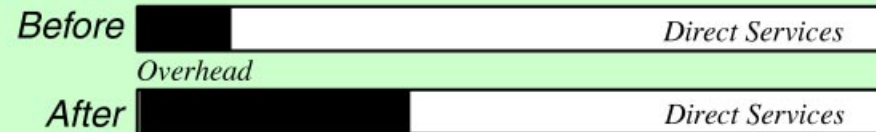
Est. 1998 data



Increased Administrative Overhead Cost

(Difficult to allocate to cost centers.)

County (CAAPCare)	12% (up from 3%)
Insurance Carrier (Regence)	5% (new cost)
Ceres Behavioral Health care	12% (new cost)
Networks of provider agencies	3 - 8% (some new cost)
Non-Profit community agencies	est. 10-18% (increased cost)



Make the maps as self-explanatory as possible

Descriptions of organizations or sectors. To make the cross boundary maps understandable by those who may not be familiar with the organizations involved in the issues, sometimes short descriptions of the functions performed and services provided are included. Note that sometimes sentence fragments rather than complete sentences are used to provide "telegraphic" descriptions, usually included within the organizational blob.

Adult Protective Services

- Protection against physical abuse
- Protect against fiduciary abuse
- Do separate case management
- Provide shelter care

Skilled Nursing Facilities (SNF) (Nursing Homes)

- Approx. 7% of aging population are in these institutions
- Public has very poor perception of SNF
- 70% of all patients paid for Medi-Cal
- \$56/patient paid by Medi-Cal

Alameda Hospital Authority

- Highland Hospital
- Provide services to The Alliance and Blue Cross managed care organizations
- Not run by Alameda Board of Supervisors
- Provide indigent care with State funds
- Provide health benefits for eligible IHSS homecare workers.
- Bill Medi-Cal and Medicare for services



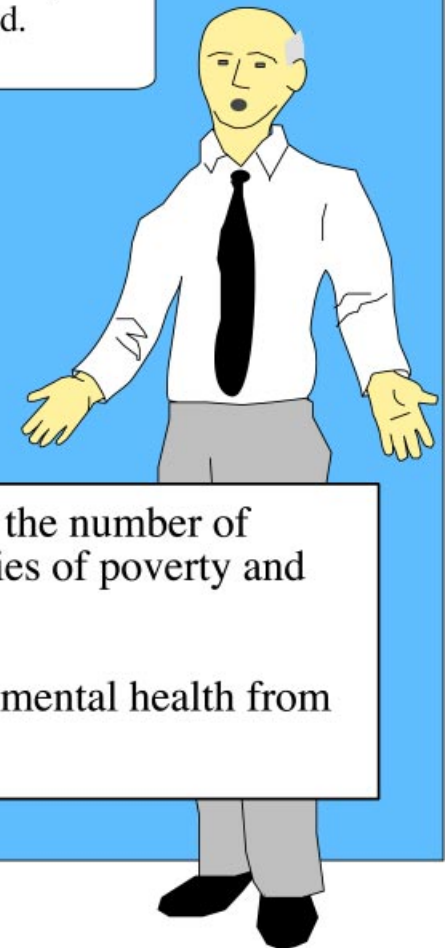
Make the maps as self-explanatory as possible - 2

Definitions. Key definitions are included in the text (e.g. the definition for the term "carve-outs") or in some cases boxes, where full definitions are provided.

The state created mental health "carve-outs" (1997). Carve-outs are new entities, Mental Health Organizations (MHOs), that receive and distribute capitation payments to providers and report data to the state.

Capitation refers to payments based on the number of people who fall into the Federal categories of poverty and those who are newly eligible.

Carving out refers to the separation of mental health from physical health payers.



Make the maps as self-explanatory as possible - 2

Icons. Icons aid in navigation of the complex maps. Icons are used to aid identification of major sectors and identification of the map. A special icon can also be used, for example, to highlight the difficulty of fragmented system administration identified by the task force who created the map.

**Fragmented
system
administration**



Housing sector



**Law enforcement
sector**



**Adult Customer
Sector**



Oregon State Legislature

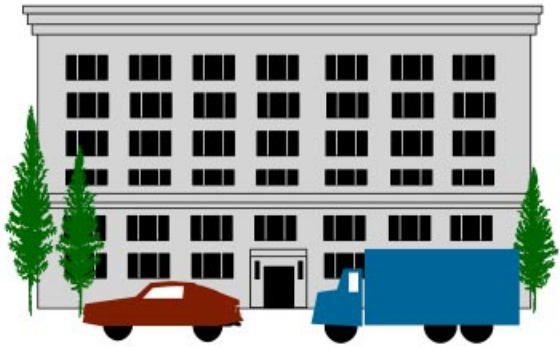


**Multnomah
County Sector
(the county icon)**

**County Data
System Sector**



Mess maps can tell stories - Why the overcrowded jail psychiatric unit?



County Jail (Corrections Health)

JAIL IS MAJOR MENTAL WARD
Increased mentally ill inmates
from 1500 to 3000 in 2 years.
Inmates lose Oregon Health
Plan coverage.

One of the problems the county supervisors knew about was the rapid increase in occupants of the psychiatric unit of the County Jail. But the question was "Why the increase?"

Mess maps can tell stories - Why the overcrowded jail psychiatric unit?

Follow the causal arrows backwards.

Notice that we cross the boundaries of different organizations and sectors. This is why we call this a cross boundary causality map.



The Street Sector

STREET NEEDS UNMET

Increased homeless street population in which service needs for many are unmet.

2,700 individuals seek shelter every night in Portland. At least 30% of homeless people are mentally ill.



County Jail (Corrections Health)

JAIL IS MAJOR MENTAL WARD
Increased mentally ill inmates from 1500 to 3000 in 2 years. Inmates lose Oregon Health Plan coverage.



Law Enforcement Sector

Increased enforcement of petty crime arrests to protect customers and public (anecdotal evidence)

Mess maps can tell stories - Why the overcrowded jail psychiatric unit?

It gets interesting here. The case workers are leaving in droves. So the patients are not taking their medications regularly. Why are the case workers leaving? Among other things, the Task Force found out that case workers resented having to fill in a whole lot of new paperwork forms. They saw themselves as "people people," not "paper people."

Case workers have to fill out more paperwork in less time

Data recording must be increased significantly

Experienced case workers leave in droves (From 15% to 40% in one year),

Poor continuity of care

Non-Profit Community-Based Provider Agencies



MAJOR SERVICE DECREASE
Major decrease in access to mental health services.



County Jail (Corrections Health)

MAJOR MENTAL WARD
Increased mentally ill inmates from 500 to 3000 in 2 years. Services lose Oregon Health coverage.



Law Enforcement Sector

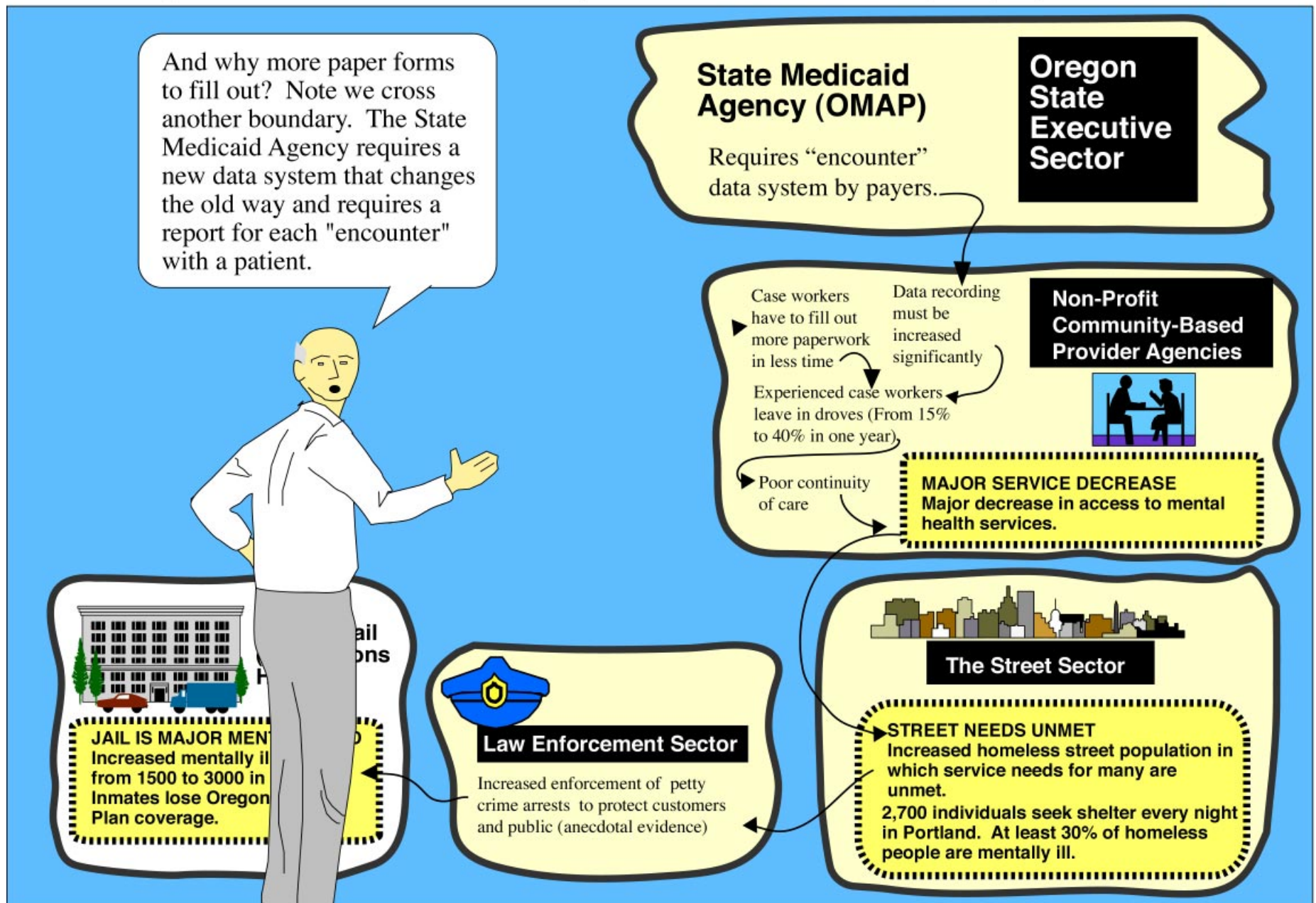
Increased enforcement of petty crime arrests to protect customers and public (anecdotal evidence)



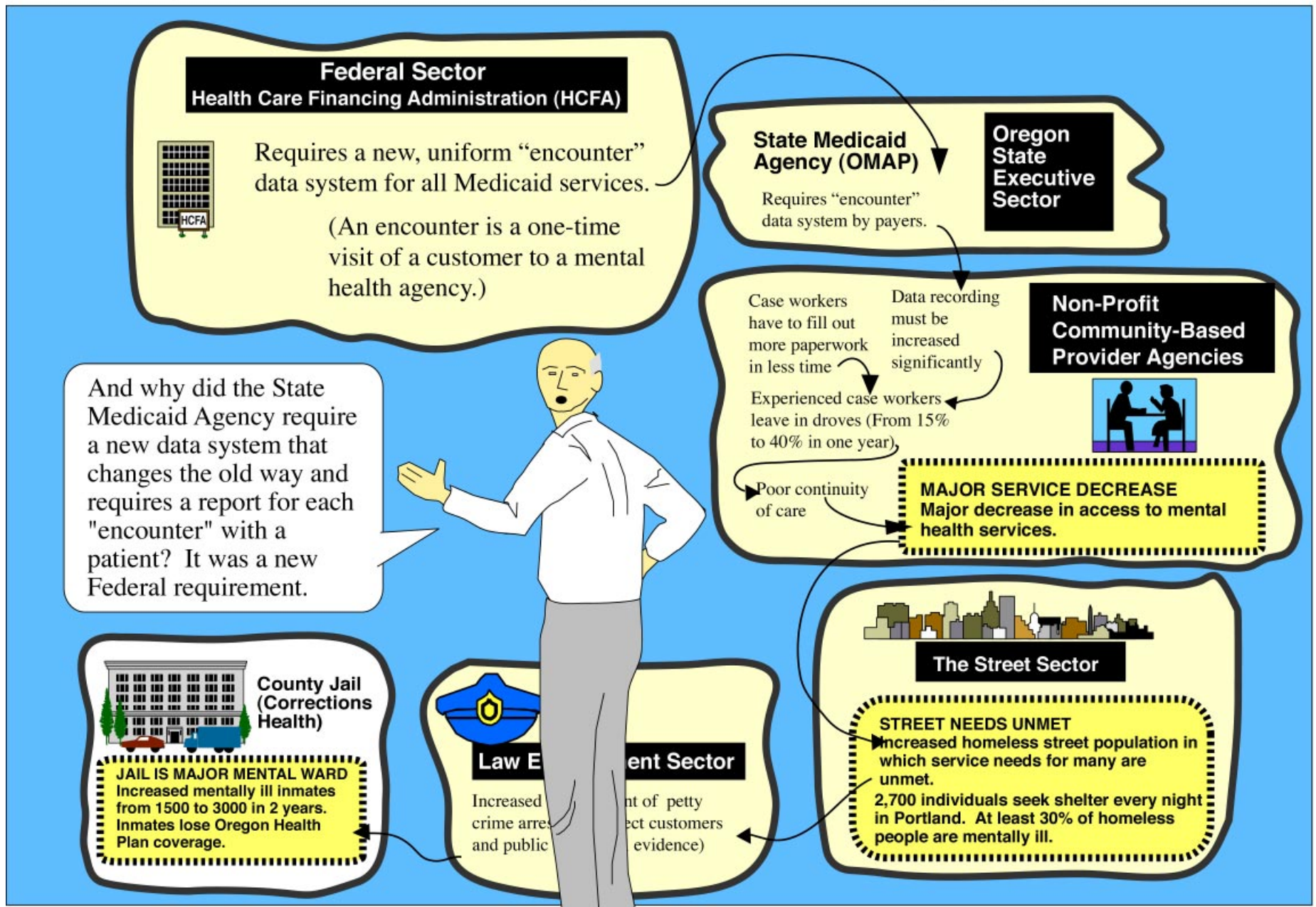
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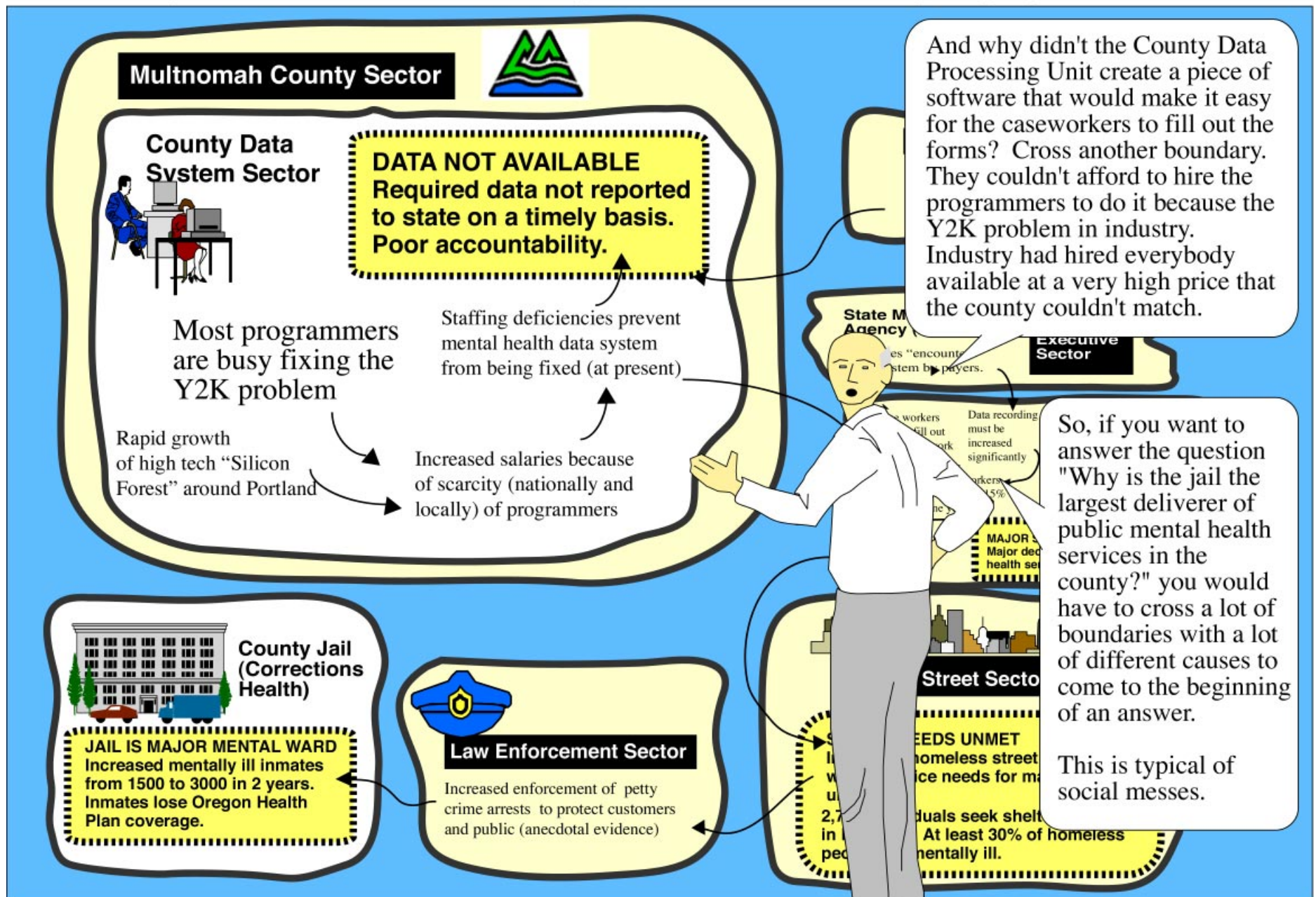
Mess maps can tell stories - Why the overcrowded jail psychiatric unit?



Mess maps can tell stories - Why the overcrowded jail psychiatric unit?



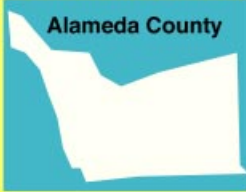
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










Components: Summary, trends, unknowns, opportunities identified



Summary

This map summarizes the impact of having 70 funding streams providing 400 agencies in Alameda county with their funds.







-  Fragmented system administration
-  Lack of information about available services
-  System complexity prevents easy navigation through system.
-  Severe lack of case management
-  More clients eligible for more treatments
-  More diverse customers than the rest of the state
-  More seriously ill clients
-  Less money to serve them
-  Poor and incomplete data
-  Accountability diffused

Unknowns

-  Mental Health Parity Act may significantly redirect distribution of services and funds
-  Tobacco settlement money may be available for health services



Trends

These trends will make future delivery of LTC services as important a part of government services as health care.

-  Elderly population is growing faster than any other segment of population, particularly those over 100
-  Olmstead Act decision will create an unknown number of nursing home residents to be placed in home and community-based settings in order to avoid premature institutionalization
-  Health Insurance Portability and Accountability Act (HIPAA) may change how services are organized and delivered
-  Grandparents are increasing in number, increasing the need for services for their grandchildren

Opportunities

Following are opportunities identified by the task force:

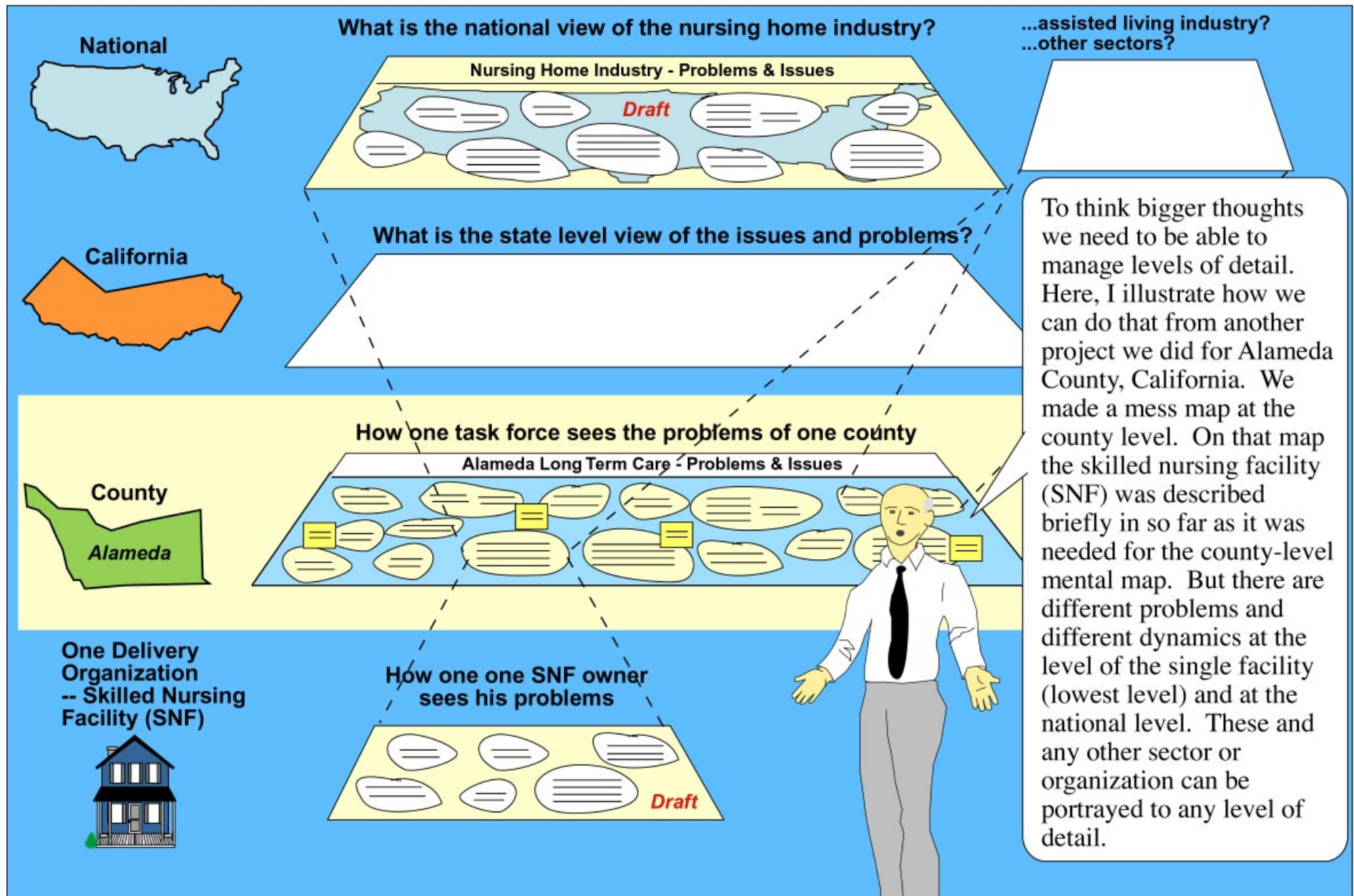
-  National Family Caregivers Act will provide approximately \$1 billion for Alameda county
-  Large group of elders enrolled in Medicare could represent a large community resource for helping other elderly

Summary. The mess map provides a concise summary of the commissioner's dilemmas and issues when faced with managing their part of this complex system.

Source. This summary is from another project we did for Alameda County, California on Long Term Care problems. It's a more complete example than from our Portland Task Force map.

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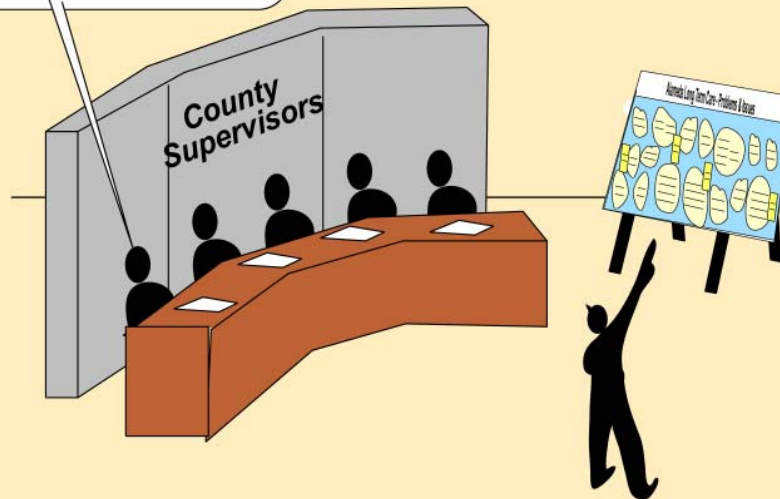
Levels of Knowledge Maps



No written report to the County Supervisors -- only the maps.

The map was the report to the County Board of Supervisors. There was ***no long written report***.

I'm glad I don't have to read another 60-page report tonight!



Both Task Forces – the one in Multnomah County (Portland) and the one in Alameda County California – decided ***not*** to write a report. They decided that the maps were enough and gave their maps to the County Supervisors as their report.

One of the supervisors said: "I'm glad I don't have to read another 60-page report tonight." Yes, one of the supervisors actually said this. And the others agreed.



Next, I want to take up another case history of another template for thinking big thoughts.

