

Creating a Data-Driven Culture: The Santa Cruz County Key Indicator System

KRISTIN JAMES-BOWE

EXECUTIVE SUMMARY

In 2008, the Santa Cruz County Human Services Department began the creation of what would eventually become the Key Indicator System. The system is one element in an effort to move the agency towards a culture of data-driven decision-making. The Key Indicator System is a database that contains performance indicators for the different divisions within the department. It has a web-based interface that enables the user to see his or her performance at a glance. It also uses the colors red, yellow, and green to indicate levels of success in meeting targeted

outcomes. The system is remarkable in its complexity while maintaining ease of use.

This case study will explain in detail the reason that Napa County is interested in learning more about the Key Indicator System. Interviews with several Human Services Department staff will show how it is being used and what challenges Santa Cruz County faced in its implementation. It will also explain why, at this time, it is not being recommended for adoption in Napa County.

Kristin James-Bowe, Staff Services Analyst II,
Napa County Health & Human Services Agency

Creating a Data-Driven Culture: The Santa Cruz County Key Indicator System

KRISTIN JAMES-BOWE

Introduction

According to the National Association of City and County Health Officials (NACCHO), during the recession that began in 2008, local public health departments saw their budgets cut an average of 26% (NACCHO, 2014). As money dwindled at the federal and state levels, public health funding faced increasing scrutiny. Political leaders wanted to know more about program effectiveness and outcomes for the people these programs serve. This represented a challenge for public health programs that historically have been evaluated on a numerical basis. Prior to 2008, to continue to receive funding, programs were generally asked to verify the number of people served or number of participants in a given time period.

As the legislatures at the state and federal level began to demand more outcome measurements from public health programs, the programs struggled to find new ways to view their work. For example, the California Children's Services Program helps low-income families pay for medical care for children with specific medical conditions. The program is required to track timeliness of the process to enter children into the program and the number of children in the program on average. There is currently no requirement to assess the quality of life for these children while they are in or after they have left the program. In 2014, Dr. Richard Pan, a California State Senator, asked for more information regarding the outcomes for children in the program during discussions about continuing to fund the program.

Nationwide, public health has embraced the challenge that this change in focus represents and is moving steadily toward more and more outcome-based measurement. This is evidenced by the creation of public health accreditation standards. Currently, all local health departments have an opportunity to become accredited health departments by the Public Health Accreditation Board. Public health accreditation is based on the ten essential services of public health and requires local and state health departments to demonstrate that they provide each service. The ten essential services ask local and state health departments to:

1. monitor health status to identify and solve community health problems.
2. diagnose and investigate health problems and health hazards in the community.
3. inform, educate, and empower people about health issues.
4. mobilize community partnerships and action to identify and solve health problems.
5. develop policies and plans that support individual and community health efforts.
6. enforce laws and regulations that protect health and ensure safety.
7. link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. ensure a competent public and personal health care workforce.

9. evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. research for new insights and innovative solutions to health problems.

(CDC, 2013)

As public health departments move toward accomplishing these goals, it has become clear that data systems are going to be a critical part of tracking the success of these efforts over time. The Santa Cruz County Human Services Department has developed the Key Indicator System to measure program performance. While the Santa Cruz Human Services Department does not have a public health department, the Key Indicator System is so multifaceted that it could be used by almost any department looking to increase data capture and reporting. This system enables the department to get real-time data about program performance and understand what, if any, uncommon events affect performance (i.e. leaves, attrition, program implementation, etc.).

Background

The Santa Cruz County Human Services Department (HSD) is comprised of many different divisions encompassing employment, older adult, veteran, and family services. The department is supported by a Planning and Evaluation Unit. The Planning and Evaluation Unit is staffed by one director, two senior analysts, and two senior programmers. In fiscal year 2008-2009, the HSD began work on shifting toward a more data-driven way of working. The department proposed to change the focus of the work of the Planning and Evaluation unit towards creating a system to enable the department to track performance. Also, to develop a more data-informed, educated, and disciplined workforce by increasing the ease of access to program-level data.

To meet that aim, the Planning and Evaluation Unit created the Key Indicator System (KIS). KIS contains a database that was created to enable Santa Cruz County to track program performance

in real time. The system, as described by the Planning and Evaluation Unit at a recent training uses “current data to analyze specific, previously defined aspects of each unit’s past performance, to follow-up on previous decisions and commitments to produce results, to examine and learn from each unit’s efforts to improve performance, to solve performance-deficit problems, and to set and achieve the next performance targets” (Williams, 2015).

Key Elements of KIS

The system as it exists today was conceived, reconfigured, and developed over the past seven years. The system uses a web-based interface to allow staff access to current program data. The KIS user interface shows data in a dashboard. The dashboard uses red, yellow, and green colors to denote levels of success in reaching a targeted result. The dashboard enables the user to see the program performance results at a glance. The performance indicators shown are mutually determined by program staff and Planning and Evaluation Unit staff. To be added to the Key Indicator System a measure must:

1. be a performance measure, not simply a count
2. have a clearly defined benchmark
3. need to be monitored frequently (monthly)
4. have a simple design to enable “at-a-glance” clarity
5. be designed with simple priori analytics (drill downs, drivers, or significant events)
6. be able to be maintained by current staff

(Williams, 2015)

Each division in the Human Services Department is allowed a total of twenty key performance indicators. The Key Indicator System is different from other dashboard systems in its ability to allow the division to indicate data “drivers.” Drivers are additional metrics that can affect the outcome of a performance measure. Some examples of drivers include, but are not limited to: staff leaves, staffing levels, and customer traffic. These drivers are tracked and can be viewed on top of performance indicator data. The Key Indicator System also allows the program to

enter significant events, such as, changes in state law, natural disaster, or local event.

Interviews with staff pointed to the idea that performance measure data, on its own, often tells an incomplete story. Meaning the data does not indicate what additional elements may be driving a change, it simply shows that a change has occurred. The addition of drivers enables the division or program to be more specific in problem solving and decision making. As Emily Balli, Director of the Employment Benefits and Services Division, puts it, “What gets measured gets done...the system helps guide and keep us on mission” (E. Balli, in-person interview, February 23, 2015).

Successes

While it is difficult to quantify the success of the Key Indicator System, there is no doubt that it has begun to change the culture in Santa Cruz County's Human Services Department. This was evident during interviews, in March-April 2015, with Human Services Department staff who were very excited about the changes the system has made in their divisions and what was to come. Emily Balli said, “[The system] tells a better story, validates staff feelings, and [demonstrates] why we may focus on a particular area” (E. Balli, in-person interview, February 23, 2015). The Employment Benefits and Services Division has created “How are we doing” bulletin boards to share current data with staff. In addition, they've added a “Did you know?” section to their division newsletter to increase visibility of the data.

Kari Beuerman, Director of the Adults and Long Term Care Division, said “[The system] provides proof that you do what you say you do...Proof that work is progressing as perceived, and forces us to ask tough questions. Telling the story helps the discussion” (K. Beuerman, phone interview, March 10, 2015). The division meets monthly with managers and supervisors to review their performance indicators. Additionally, Santa Cruz County HSD holds monthly HSD STATS meetings. This meeting is attended by the Department Director or Deputy Director and the leadership team. Depending on

the topic, all Division Managers and Planning and Evaluation Unit staff are invited. The different HSD Division program performance indicators are discussed at length and in detail.

Ellen Timberlake, the Human Services Deputy Director, was very clear that this is the direction the department has wanted to move in for some time. She said “[The system] is working as we envisioned and our ability to ask the right questions is improved... the model [KIS] is a great representation of the complexity of critical thinking” (E. Timberlake, phone interview, March 10, 2015). There are plans to create better transparency and increase awareness by allowing line staff access to the Key Indicator System.

Obstacles

The Planning and Evaluation unit held training in February 2015 to demonstrate the functionality of the Key Indicator System to other Bay Area counties. The training covered a number of topics including some the challenges the HSD faced during the creation, implementation, and integration of the Key Indicator System. Some of the identified challenges were as follows:

- There are close to 500 metrics
 - Some have long duration; others come and go over time
 - Difficulty maintaining clarity during discussions around specific metrics
 - There are many changing ideas and requests for increasingly nuanced reporting formats
- There are any sources of data
 - CalWIN (California Work Opportunity and Responsibility to Kids Information Network)
 - CMIPS (Case Management, Information and Payroll System)
 - AACTS
 - VetPro (credentialing system for the Dept. of Veteran Affairs)
 - CWS/CMS – Safe Measures (Child Welfare Services Case Management System)
 - Agency Spreadsheets

- Local Personnel and Fiscal Systems
 - Ensuring consistency between indicator data (highly aggregated/summarized monthly measure) and other related reports provided by Planning and Evaluation or the external source databases

(Williams, 2015)

There is also a challenge gaining access to data. Some of the state systems are outdated and therefore not compatible with new technology. Some state programs are unwilling to allow the Planning and Evaluation Unit staff access to the programming behind some of their databases. This means that the staff must run reports then manually transfer the data from the state system to the Key Indicator System. Resolving these issues is not impossible but represents a challenge in the sustainability of the Key Indicator System because there must always be staff available to complete data entry. However, Ellen Timberlake, HSD Deputy Director, has indicated the department is “invested in the discipline behind the project,” (Timberlake phone interview, March 10, 2015) which means this hurdle can and will be overcome.

Additionally, some staff indicated that developing the Key Indicator System required a change in mindset. Kari Beuerman, Director of the Adults and Long Term Care Division, said the process helped her “appreciate that there is a value in other people knowing your program...and get over the fear and shame around seeing negative findings” (Beuerman, phone interview, March 10, 2015). This sentiment was echoed by all interviewees as a way of pointing out why the Key Indicator System is beneficial. Also, a number of the interviewees indicated that their next steps involved increasing line staff level participation and knowledge of the Key Indicator System.

The Planning and Evaluation Unit has developed a robust list of goals for the system. Some of these goals include adding quality indicators, contract performance indicators, and a fiscal dashboard. Quality indicators would measure the effects of the program on individuals in addition to the speed or

efficiency of services. If the department continues to focus on these goals, keeping its purpose in mind, there is no reason this project should not enjoy continued success.

Conclusion – Implications for Napa County

Implementation of the Key Indicator System would be a great benefit to the Napa County Health and Human Services Agency (HHSA). It would enable a more accurate and robust story-telling about agency performance. However, implementation of the Key Indicator System, as it was designed by Santa Cruz County, is not recommended at this time. The resources, determination, and knowledge needed to create the system are not currently in place.

Ellen Timberlake, in response to the interview question, “What do you now know that you wish you had known from the beginning?” said:, “Don’t underestimate the resources that it takes ... people power and brain power, not just money and time. What you need are really smart, committed people, will of the department to do it ... and an iterative process. Don’t shy away from that” (Timberlake, phone interview, March 10, 2015). Napa County should engage in capacity-building and resource gathering to ensure that the needed pieces are in place to design and implement a system similar to the Key Indicator System.

Currently, Napa County utilizes an electronic dashboard to track quality management efforts. This dashboard (*Figure 1*) shows the frequency, target, and result of the measure selected by the department. It also shows performance over time in a sparkling graph. In comparison, the KIS system requires more frequent reporting, and with the additional ability to view performance driver metrics, the system is more nimble and informative at a glance. This KIS system also displays yellow when a measure has almost reached the target. The Napa County dashboard displays any missed targets with a red performance indicator. Overall, the KIS system could enable Napa County to have a more robust way of knowing how they are performing as an agency.

FIGURE 1
Napa County's Electronic Dashboard for Tracking Quality Management Efforts

Division - Public Health							
Program	Indicator	Rw Period	Frq	Target	Result	Perf	Sparkline Graph
All Staff	<u>Staff report division communication is good</u>	Jun-30-14	Annually	80 %	95 %		
Children's Medical Services	<u>% of "reopen pending cases"</u>	Dec-31-13	Quarterly	15 %	17 %		
Children's Medical Services	<u>% financial eligibility determined in 30 days</u>	Sep-30-14	Quarterly	85 %	86 %		
Children's Medical Services	<u>% medical eligibility determined in 5 days</u>	Sep-30-14	Quarterly	85 %	93 %		
Children's Medical Services	<u>% residential eligibility determined in 30 days</u>	Sep-30-14	Quarterly	85 %	86 %		
Children's Medical Services	<u>% CCS clients describing staff as helpful</u>	Jun-30-12	Annually	80 %	87 %		
Children's Medical Services	<u>% CCS clients find printed materials helpful</u>	Jun-30-12	Annually	80 %	90 %		
Children's Medical Services	<u>% CCS clients find staff courteous, professional</u>	Jun-30-12	Annually	80 %	82 %		

For the Napa County Public Health Division it is recommended that it look into adopting elements of this process as it moves toward public health accreditation. The Key Indicator System's focus on performance measures instead of simple counts is a key element of accreditation. In addition, a performance management system that includes drivers will enable the public health management and staff to learn more about what affects, positively or negatively, program outcomes. It will also provide an opportunity for staff at all levels to learn more about how effectively public health is in helping to prevent disease and conditions that challenge health while protecting and promoting the overall health of the community.

Acknowledgments

I would like to extend my profound gratitude and thanks to the Santa Cruz County Human Services Department for the opportunity to learn more about the Key Indicator System. I would like to give special thanks to:

Kim Williams, Senior Human Services Analyst and BASSC Preceptor, Santa Cruz County Human Services Department

Andrew Stewart, Staff Development Program Manager, BASSC Liaison, Santa Cruz County Human Services Department

Emily Balli, Director, Employment, Benefits & Services Division, Santa Cruz County Human Services Department

Madeline Noya, Director, Planning & Evaluation, Santa Cruz County Human Services Department

Ellen Timberlake, Deputy Director Santa Cruz County Human Services Department, Santa Cruz County Human Services Department

Kari Beuerman, Director Adults & Long Term Care Division, Santa Cruz County Human Services Department

I would also like to thank the Napa County Health and Human Services Agency for the opportunity to participate in the BASSC program and support throughout. Special thanks to:

Heidi Merchen, Public Health Manager – Administration, Napa County Health and Human Services Agency, Public Health Division

Karen Smith M.D., Director and State Health Officer, California Department of Public Health

Howard K. Himes, Agency Director, Napa County Health and Human Services Agency

Mark Woo, BASSC Liaison, Napa County Health and Human Services Agency, Quality Management Division

References

NACCHO (2014, April). Local Health Department Budget Cuts and Job Losses: Findings from the 2014 Forces of Change Survey. Retrieved from <http://www.naccho.org/topics/research/forcesofchange/upload/budget-cuts.pdf>

Center for Disease Control and Prevention (2013, July). The Public Health System and the 10 Essential Public Health Services. Retrieved from <http://www.cdc.gov/nphsp/essentialServices.html>

Williams, K. (2015). The Development of the Key Indicator System [PowerPoint slides].