Results That Matter Team

Driver-Outcome Performance Measurement for Actionable, Strategic Performance Improvement

By **Paul D. Epstein** (paul@RTMteam.net), 2013

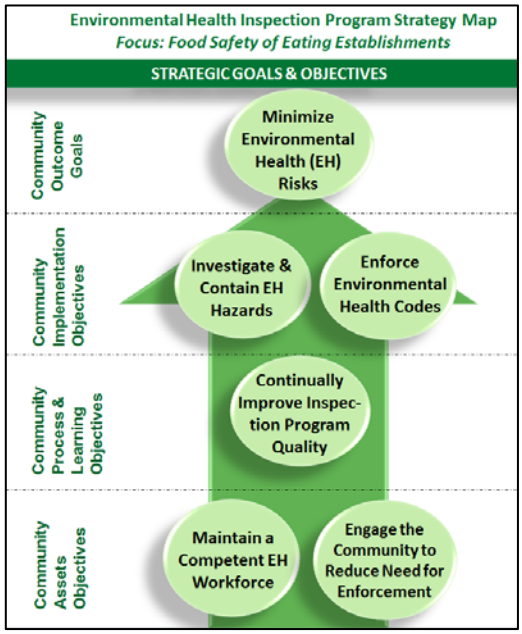
Performance measurement is a useful tool for accountability and transparency of public and nonprofit organizations. And some managers have done well at tracking trends of a key measure over time and against targets or benchmarks to find ways to improve performance of that measure. But the real power to use performance measurement to manage and improve performance comes when you review and analyze several measures together that have special assumed relationships with each other. These are "driver-outcome" relationships, where some measures are the ultimate outcomes sought for a community, region, or population, and other measures are of "drivers" that are assumed to significantly influence accomplishment of those outcomes. Driver-outcome measurement is currently being used to develop performance management systems in public health[1] but can be applied to any public or community issue, service, or program. Many high priority community or regional outcomes, such as those related to educational achievement, public health, poverty reduction, economic development, affordable housing, and many other issues, are subject to many influences and are often hard to improve through short-term actions by any one organization. These kinds of outcomes are *strategic* in that they are among the most important things in a community or region to improve, and they are important to measure and track over time. But they are often lagging indicators that only change after things that influence them change, and may not be directly actionable. There are many things that government and nonprofit organizations do that can be readily measured and acted upon. But not all measures and actions are particularly relevant to moving outcomes in the desired direction. So, rather than measure everything that's easy to measure, the key is to identify those things that are both actionable and most likely to significantly influence or *drive* outcomes. Then, measure and try to improve those *drivers,* assumed to be "leading indicators" of later movement of outcomes,[2] making the measurement system both *actionable* and *strategic*.

Driver-Outcome Measurement: Different from Other Approaches that Use Multiple Measures

Driver-outcome measurement differs from earlier public and nonprofit measurement approaches using multiple measures or "families of measures" that go back at least to the 1970s and that call for specific types of measures for each program.[3] Instead the "drivers" can be any types of measures that fit assumptions about how desired outcomes are achieved and the strategy used to achieve them, whether those are measures of outputs, quality, customer satisfaction, timeliness, efficiency, staff development, capacity, revenue, funds raised, or any other type of measure that, if improved, is expected to help move one or more outcomes in the desired direction. The idea of measurement based on driver-outcome relationships is borrowed from the balanced scorecard methodology[4] but one does not need to implement the full balanced scorecard approach to make good use of driver-outcome measurement. One other tool borrowed from the balanced scorecard, the *strategy map,* can be especially helpful by graphically identifying driver-outcome relationships at the level of strategic goals and objectives, to help identify especially relevant measures that will exhibit driver-outcome relationships managers can use to analyze performance. The following example illustrates the use of these tools.

Example: Driver-Outcome Measurement Focused on Better Code Enforcement Outcomes

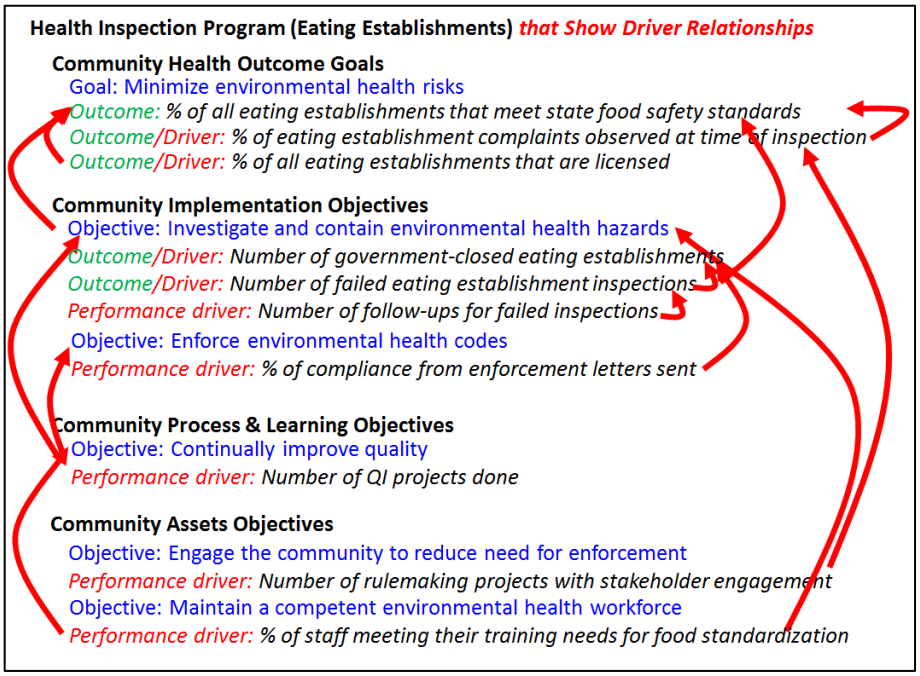
Code enforcement is one of the most common activities of local, state, provincial, and national governments, with a wide range of agencies enforcing fire codes, building safety codes, housing codes, occupational health and safety codes, consumer protection codes, and environmental protection codes of many types including environmental health codes, the focus of this example. This example focuses on enforcement of food safety codes in restaurants and other eating establishments based on an actual strategy and performance measures developed by a state public health agency in the United States, in a **Results That Matter Team** project done in partnership with the **Public Health Foundation**. But it is easy to imagine analogous strategies with driver and outcome measures being developed to focus many other kinds of code enforcement efforts on achieving better outcomes.



This strategy map shows the strategic goals and objectives that Environmental Health Inspection program managers developed and chose to measure, organized vertically to imply various driver relationships. For example, the objective at the bottom right, "maintain a competent environmental health (EH) workforce" will help the program "continually improve inspection program quality" which will in turn help improve how they "investigate and contain EH hazards" and "enforce environmental health codes." The large up arrow behind goals and objectives shows the general driver direction of the strategy, with the objectives ultimately focused on driving achievement of the strategic outcome goal at the top, "minimize environmental health risks."

This strategy map helped program managers develop highly relevant performance measures, shown below with arrows to depict more detailed driver-outcome relationships than those implied by the strategy map. For example, the top outcome measure they want to improve, *percent of all eating establishments that meet state food safety standards,* is driven, in part, by the lowering the next outcome measure listed, *percent of eating establishment complaints observed at time of inspection.*

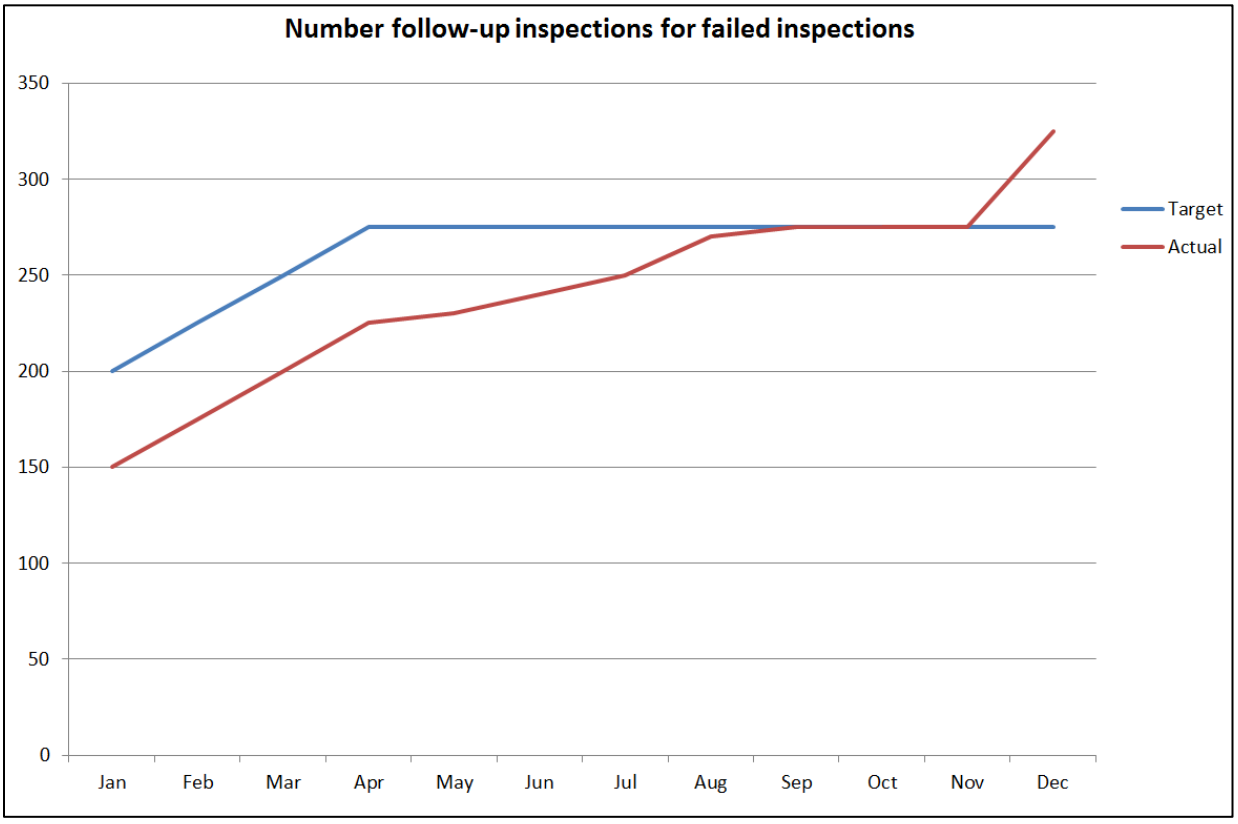
In other words, some inspections are in response to consumer complaints. And it's a good sign if restaurant managers are pro-active in fixing problems that may have led to the complaint before a health inspector arrives. That



measure is considered both an outcome (better restaurant management behavior) and a driver (of getting and keeping more restaurants up to code). That measure *(percent of complaints observed)* is in turn driven by success on an objective near the bottom of the list, "engage the community to reduce the need for enforcement" which is measured by *number of rulemaking projects with stakeholder engagement.* By following other arrows in the list, one can follow other chains of driver-outcome relationships, all focused on increasing the top outcome, *percent of all eating establishments that meet state food safety standards.* Chains of driver-outcome relationships ***tell the story of your strategy to achieve outcomes.*** One check on how relevant and useful a list of performance measures is likely to be is whether you can organize them into driver-outcome chains that tell clear stories of how you intend to achieve desired outcomes.

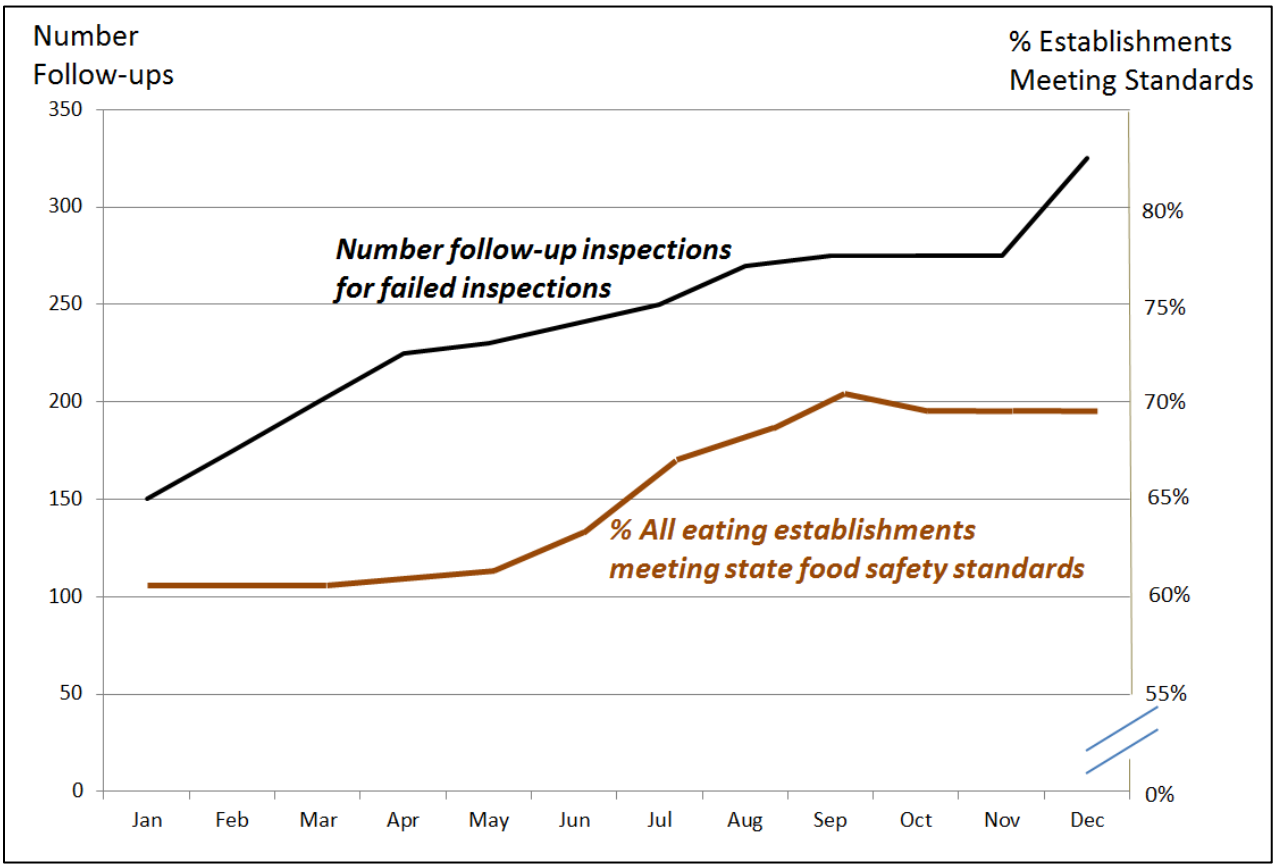
Using Driver-Outcome Analysis for Outcome-Focused Performance Management

It's one thing to measure performance. But how does the use of driver-outcome measurement work in practice when trying to manage performance to increase outcomes? To see how this can work, focus on another chain of driver-outcome relationships, starting in the middle of the list of performance measures. Focus first on the performance driver *number of follow-ups for failed inspections.* An important part of the strategy is for health inspectors to return to restaurants that failed inspection to determine if they corrected problems, which is expected to eventually lower the next measure up, *number of failed eating establishments,* which in turn is expected to increase the top measure, the *percent of all eating establishments that meet state food safety standards.* In this example, we'll just look at hypothetical monthly data for the main actionable driver in this chain, *number of follow-ups for failed inspections,* and the top outcome, *percent of all eating establishments that meet state food safety standards.* The following graph shows the trend against targets for the driver measure. Note that management's strategy clearly involved increasing follow-up inspections as they



ramped up their target from 200 in January to 275 per month in April, where it remained through the rest of the year. Actual performance was below target most of the year, but steadily increased starting in February until hitting the 275 target in September through November. To work off a backlog of needed follow-up inspections that had built up while they were below target, in the fall management started cross-training other environmental health staff so they could meet short-term periods of increased demand for restaurant inspections. By December, the extra EH staff were sufficiently trained and were sent into the field so follow-up inspections increased to 325 that month.

The next graph charts data for the outcome, *percent of all eating establishments that meet state food safety standards,* against data for the follow-up inspection driver. Comparing the two trend lines shows that after an



Initial two-month lag, for most of the year increases in the outcome roughly tracked increases in the driver, from about 61% of establishments meeting standards in February to about 71% in September. This does not prove that the increase in follow-up inspections caused the outcome to increase, but it gives management confidence that increasing follow-up inspections was a good strategy. But then, as the number of follow-up inspections remained at the higher target level in October and November and even exceeded the target by 50 in December, the *% of establishments meeting standards* dipped a bit to below 70% in October and plateaued at that level through December. That suggests that perhaps increasing follow-up inspections *was* driving the outcome up for three quarters of the year, but then the program hit a point of diminishing returns. An executive manager reviewing these trends might ask program managers questions such as:

- What else has been happening that might have caused greater compliance with standards in most of the first three quarters, but a leveling off later in the year?

- Given the leveling off of compliance, do you think the increase in follow-up inspections in December was worth the extra paid staff-time? Should we continue with this increased level of follow-ups?
    - To answer this question, one might notice the two-month lag early in the year between follow-up inspections increasing and compliance with food safety standards increasing. That may suggest continuing with the higher level for another two months—perhaps for a full quarter—to see if there's a similar lagging effect at the higher level of inspections, and the outcome of compliance with food safety standards starts to rise again.
- If we conclude that we may have reached a point of diminishing returns on increasing follow-up inspections, or we cannot afford to divert cross-trained staff from other duties for much longer to maintain the higher number of follow-ups, what else can we do to that will drive up our top outcome, the *% of eating establishments meeting food safety standards?*
    - To answer this question, the executive and program manager can go back to the strategy map and the list of measures showing driver-outcome relationships. They may notice the strategic objective at the bottom of the map, "engage the community to reduce need for enforcement," and see that the only way that's being measured is by the *number of rulemaking projects with stakeholder engagement.* That may be an effective form of engagement as restaurant owners involved in rulemaking will better understand the rules and why they were made, and be better able and motivated to comply. However, the Environmental Health team only conducts an average of one food safety rulemaking project a year. So opportunities for stakeholder engagement in this way are limited.
    - That review of engagement efforts may lead to the question, "How can we engage stakeholders more robustly, in a way that we think will drive outcomes faster?" Perhaps that will lead to a new engagement initiative (e.g., targeted outreach to restaurants in communities with low compliance, extra or improved food safety training) and a new performance metric, or a new quality improvement project to increase the amount and effectiveness of stakeholder engagement.

The scenario above shows how focusing strategies and performance measures on driver-outcome relationships can strengthen performance management analyses to help you find better opportunities for performance improvement. As described above, the driver-outcome approach does this by providing performance measures that relate to each other in ways that are *both* actionable *and* strategic.

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[1] In 2013 training and technical assistance projects by the Public Health Foundation and the Results That Matter Team involving over 40 state, local, and national public health agencies in Kentucky, Maine, Tennessee, Utah, West Virginia, and the Federated States of Micronesia.

[2] Simone, Alina and Paul D. Epstein, "Leading and Lagging Indicators of Public Health and Public Health Assessment and Accreditation" in Bialek, Ron, Grace L. Duffy, and John W. Moran, eds. The Public Health Quality Improvement Handbook (Milwaukee: ASQ Quality Press, 2009), pp. 83-90.

[3] For example, the Urban Institute's work on measuring the efficiency and effectiveness of public services (e.g., Hatry, Harry P. and others, *How Effective Are Your Community Services,* 1977, and Hatry, Harry P. and others, *Efficiency Measurement for Local Government Services,* 1979) as well as work by the U.S. GAO contributed to the idea using of families of measures of economy, efficiency, and effectiveness. 1990s work by the United Way and Urban Institute on program logic models (e.g., United Way of America, *Measuring Program Outcomes,* 1996) led to ideas of families of measures involving inputs, activities, outputs, and one of more levels of outcomes.

[4] Kaplan, Robert S. & David P. Norton, *The Balanced Scorecard* (Boston: Harvard Business School Press, 1996) pp. 31-32.