



#HealthierMO

Transforming the Future of Public Health in Missouri

**Measuring Stakeholder
Commitment to a
Transformational Public
Health Initiative**

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RESEARCH by DESIGN

Measuring Stakeholder Commitment to a Transformational Public Health Initiative

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#HealthierMO Phase II Process Evaluation

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Executive Summary

The evaluators and communication specialists of the Transforming the Future of Public Health in Missouri (#HealthierMO) initiative developed a commitment model to address (a) levels of commitment to the #HealthierMO initiative, (b) distinguish commitment to the initiative from general commitment to the transformation process, (c) measure non-commitment (skepticism) towards the initiative, (d) explore the implications for communication within the initiative based on the pattern of commitment, and if possible, explore the interactions of the components of the model as well as to track the level of support longitudinally.

A commitment survey was developed that could measure awareness about the initiative, support for the initiative, engagement with the initiative, and ownership of the initiative. Furthermore, the survey measured support transforming the public health system in general, skepticism about the initiative, representation by the initiative, and connection to the initiative through social media. The survey was delivered to 147 public health stakeholders in Missouri.

The findings showed moderately high levels of support for the #HealthierMO initiative among the stakeholders combined with moderately low levels of skepticism. A sense of ownership in the initiative was highest among engaged decision makers; skepticism was highest among LPHA Administrators. These levels of support will be monitored with the administration of the same survey over time.

In addition, the commitment model was examined statistically to determine if and how it worked. The major findings were that commitment is linear with stakeholders moving from awareness to deeper levels of commitment, support for the initiative is distinct from general support for public health transformation, and increasing representation by the initiative increase

stakeholder support, but skepticism about the initiative must be addressed by clarifying how the initiative will achieve its goals and by demonstrating the efficacy of the initiative. The model and survey will be made available to other states that want to use it with their own public health transformation projects and their data will be added to Missouri's data to better understand how commitment functions within a public health transformation initiative.

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Measuring Stakeholder Commitment to a Transformational Public Health Initiative

Transforming the Future of Public Health in Missouri (#HealthierMO) is a statewide, grassroots initiative to transform the Missouri public health system into a more robust and sustainable system that is responsive to public health needs across Missouri's culturally diverse communities, so that every Missouri resident has the opportunity for a healthier life. The #HealthierMO initiative began in 2014.

Development of the Commitment Model

Upon completion of Phase I of the #HealthierMO initiative, planning began on developing a model for commitment and communication that would (a) serve as the basis for measuring the level of commitment among stakeholders to the #HealthierMO initiative and (b) inform the communication efforts from the #HealthierMO initiative toward stakeholders, encouraging them to deepen their commitment to the transformation process. The process began with an examination of existing models of commitment. The Communications Coordinator and the Lead Evaluator for the initiative identified elements from each model that fit the existing needs, but no single model was deemed sufficiently suited for the current initiative. Therefore, the #HealthierMO staff began to work on a new model that could be applied to the current initiative, and be made available to other states to use with their own transformational initiatives.

The development of the commitment model went through multiple iterations, first focusing on whether the model should include five stages – as most of the extant models did – or fewer. The finished model included only four stages that the teams concluded parsimoniously represented the likely trajectory of stakeholders through the commitment stages. Each stage of the model was anchored by at least two measureable behaviors, which were described as

“activism”. Finally, each stage included specific communication strategies that would guide how the communications team interacted with stakeholders to move them further through the commitment stages

The model was also designed to include a component missing from other models: non-engagement. Stakeholders may elect to disengage from the initiative or reserve their participation for a variety of reasons. We felt that it was important to model non-engagement strategies at each commitment level in order to anticipate and manage resistance to the initiative goals, and hopefully, to re-engage stakeholders who were not initially inclined to participate. A full depiction of the final model is contained in Appendix A. What follows is a description of the four stages of the commitment model.

Awareness

The first stage of the model is *awareness*. This stage is defined as possessing “sufficient knowledge about the initiative to hold an informed opinion.” Awareness describes knowledge about the *existence* of the initiative and knowledge about the *purpose* of the initiative. The behaviors that characterize awareness are *familiarity*: recognizing the existence and correctly acknowledging the purpose of the initiative.

Among stakeholders who are committed to the cause of transforming the public health system, familiarity with the #HealthierMO initiative will hopefully lead to *interest* and willingness to learn more about the initiative. The communications strategies for increasing awareness and moving people toward the next stage are to promote the need for and the importance of the initiative, identify the problem then connect the initiative as part of a solution, and demonstrate benefits of supporting the initiative.

An important reason for non-involvement at the awareness stage would be apathy: the person either is uninterested in learning about the initiative, does not care about the goals of the initiative, or does not see the need for the initiative. Apathy is very difficult to overcome; efforts to do so would focus on establishing the relevance of public health to that individual.

Support

The second stage of the model is *support*. Support describes sharing the vision of the initiative: agreement with the *necessity* of the initiative in its stated goals, resulting in thinking and speaking positively about the initiative. Support is characterized by feelings of representation: the belief that the initiative's goals include "people like me" or the feeling that one's voice is heard within the initiative; and by the behavior of engagement, such as following social media feeds, visiting the initiative website (www.HealthierMO.org), adding one's name to the map of stakeholders, signing up to receive email updates, and providing input to the initiative.

Ideally, interest in the initiative would lead to identification with the goals of the initiative. The communications strategies that reinforce and increase support for the initiative would be to demonstrate the personal relevance of the initiative to stakeholders, demonstrate the need for personal investment in the solutions proffered by the initiative, and describe the avenues of engagement and actively encourage engagement.

The primary reason for non-involvement at the support stage would be antipathy. Antipathy could take multiple forms. The transformational goals of the initiative could conflict with the values or beliefs of the individual, such as someone who is mistrustful of any governmental intervention, resistance to vaccines, or mistaking "public health" for government-

provided health care. The goals of the initiative could conflict with personal or financial interests of the individual, such as in someone who benefits financially from a concentrated animal feeding operation (CAFO) and is resistant to any initiative that might increase water purity regulations. Finally, antipathy could take the form of superficiality such as when someone feels the need to appear supportive of public health, but quietly desires the initiative to fail. Any form of antipathy carries the potential for sabotage of the initiative by individuals who are threatened by changes to the status quo.

Engagement

The third stage of the model is *engagement*. Individuals who are engaged with the initiative contribute resources to the initiative in the form of their time, money, expertise, or reputation. Supporters of the initiative who choose to engage will understand the need for long-term support of the initiative; transformation of a public health system is a prolonged and complicated process that will necessarily take time and sustained effort. Engagement can be measured by individuals' participation: actively working with other stakeholders to contribute to the initiative. Engagement will also be evinced by stakeholder persuasion: sharing information with others in order to build support for the initiative.

Moving from the stage of identification to participation can be aided with communication focused on the personal and professional benefits of active participation in the initiative. Messages that illustrate heightened engagement can also encourage the integration of the goals of the initiative into personal and professional career trajectories of stakeholders.

The reason for non-involvement at the engagement stage would be risk aversion. Stakeholders who generally support the initiative could nonetheless feel that identifying too

closely could involve too much time, too much cost, or too much risk to personal or professional reputation. The solution for this source of non-involvement is for the initiative to act with integrity and be sensitive to the requests made of stakeholders.

Ownership

The fourth stage of the model is *ownership*. At this stage, stakeholders have moved from individual engagement to a focus on collective impact. They are working together to achieve outcomes for the initiative and have adopted the language of “we” when discussing the initiative, rather than “they.” The sense of ownership is demonstrated through the value that stakeholders place on their personal contribution to the initiative’s success and the personal pride they would experience in shepherding the initiative to its transformational goal.

Ownership would be demonstrated through behaviors like *integration*. Rather than viewing the transformation of the public health system as an addendum to their work, stakeholders integrate the initiative’s transformational goals into their existing professional work. Additionally, stakeholders at the level of ownership would promote – offer creative direction to – the initiative and protect or defend the initiative.

The communication strategy for stakeholders at this stage is different because the goal is no longer to move people from a previous stage, but rather to maintain stakeholders in this stage once they reach it. In preserving the deepest level of commitment, communication strategies would focus on modeling and promoting integration of transformational goals; directing, affirming, and supporting constructive integration among stakeholders, and also guarding against fragmentation that can accrue over the long term. The goal of communication at this stage would

be to sustain stakeholder interest in the initiative while allowing others to do the same, with the understanding that various stakeholders will contribute in multiple, meaningful ways.

Non-involvement at this stage may simply be that the stakeholder is unaware of leadership needs within the initiative; therefore, communication strategies should invite all stakeholders to find their place within the initiative goals. Individuals may be temperamentally disinclined to take leadership roles in any setting, resulting in a diminished sense of ownership. They may feel unable to provide creative ideas and direction. Finally, historical conflicts among stakeholders, predating the origin of the initiative, may undermine trust among certain stakeholders or make them less likely to fully engage in the initiative.

Scale Development

Once the four fundamental scales had been defined, the evaluation team began developing the scales that would be used to measure each component. Following the advice of Todd Little (2013), the scales were designed to work on a triangulation procedure. Single item measures of a construct, such as measuring job satisfaction by simply asking agreement on the item “Overall, I am satisfied with my job”, tends to result in measurement error that is difficult to quantify. Little suggests that model development use three highly related items that collectively measure the construct more accurately than any individual item. The average of the three items, called a *centroid*, provides a more stable and accurate measure of the construct than a single item.

Identification of the items

Ideally, the evaluation team could have developed a large set of items that would have then been tested with a large group of stakeholders, and then winnowed down to only the best

items using an exploratory factor analysis. In the absence of this possibility, the evaluation team used an especially long, multi-iterative process to identify a handful of items that would eventually be used in the scale. All items from the scales are included in Appendix A.

Social Media Connection

The Communications Coordinator for the initiative and the Communications Committee have invested extensive time and effort into the social media component of the initiative. The evaluation team wanted to create a scale that measured social media connection, because social media represent a primary form of communication to stakeholders. The Social Media Connection scale measured the degree of interaction and engagement with the initiative's social media outlets.

Support Transforming the Public Health System

In order to distinguish between support specifically for the #HealthierMO initiative from general support for the transformational process, we created a scale to measure support for transforming the public health system in Missouri. The idea underlying the inclusion of this scale was that while general commitment to public health transformation might initially drive support for the #HealthierMO initiative, the initiative represents only the latest in a history of attempts at improving the system. As was noted at the first convening of public health stakeholders, previous attempts at public health transformation had failed and stakeholders were justifiably reserved in their support for the current attempt. Apropos to the ethos of the *Show Me State*, stakeholders wanted to know what set apart the #HealthierMO initiative from earlier, failed attempts.

The scale for support of public health transformation in general would be used to distinguish lack of support driven by apathy toward public health transformation in general from

lack of support specific to the #HealthierMO initiative. If support in general and support in specific were both high, that would indicate that the #HealthierMO initiative was on track. If support for #HealthierMO slipped while general support remained high, then the initiative itself was losing support and would require course correction. This eventuality would also allow the evaluators to track support over time and serve as an early indicator of potential danger or failure that could then trigger corrective action. If both scales tanked, that would indicate overall skepticism about system change.

Skepticism about the Initiative

One aspect missing from other non-profit commitment models was that of non-involvement. Reasons for non-involvement among public health professionals could be practical, such as a lack of time, or stress-related, arising from the pressing demands and lack of resources in the public health job. Non-involvement could manifest from an inability to see the relevance of a transformative initiative to the daily responsibilities of front-line public health provision, or be historical, such as recognizing that similar efforts have failed previously and questioning whether participating in the current initiative was worth the bother.

The evaluation team briefly considered measuring various types of non-support but quickly realized that development of those multiple scales represented an entirely new survey. Instead, we concluded that, regardless of the individual motivation or causes, non-support would manifest as skepticism about the potential success of the initiative. Therefore, we created a scale that measured skepticism: the belief that no matter how well-intentioned the initiative might be, it was unlikely to succeed and therefore not worth supporting. The Skepticism scale should be

inversely related to support for the #HealthierMO initiative and unrelated to support for transformation in general.

Representation by the Initiative

Another psychological component that was theorized to explain support for the initiative was the degree to which stakeholders felt that they were represented by the initiative. The feeling of representation was expected to mediate the transition from awareness to support, such that stakeholders who felt represented would support the initiative and become more engaged, whereas stakeholders who did not feel represented would not be supportive and would be skeptical about the initiative. We developed a set of items to measure whether respondents felt the #HealthierMO initiative was for “people like me” and if their “voice is heard” in the initiative.

Delivery of the Commitment Survey

Once the evaluation team had established the final slate of items, those items were entered into Survey Monkey online survey software. The survey was sent to subscribers to the initiative’s e-newsletter. Additionally, a web link to the survey was sent to everyone who received the initiative online newsletter updates. The survey was launched on a Friday morning, March 15, and was concluded officially on Friday, March 29. The following Monday, the lead evaluator closed the survey and downloaded all survey responses.

Data Cleaning

Survey data were cleaned for analysis. Following the advice of Tabachnick and Fidell (2007), the data were initially screened for accuracy and missing data. We removed 13 respondents who clicked through to the survey but did not answer any of the survey items.

Additionally, we removed 10 respondents who answered only the first page, providing insufficient data to be usable for analysis. The remaining answering patterns were substantially complete.

The pattern of missing data was determined to be random, so missing data for 20 cases were imputed using the multiple imputation feature in SPSS. The data were next checked for normality and outliers. Two cases – identified as multivariate outliers using a Mahalanobis test – were removed from regression model analysis, but were left in for descriptive statistics. This resulted in 147 usable responses for demographics and 144 usable responses for the regression analysis.

Findings from the Commitment Survey

The sample of 147 public health stakeholders was predominantly female (72.8%), public health workers (employee of a state or local public health agency) (34.9%), living or working in Missouri region F (the central region that contains Jefferson City; 23.1%) and their average tenure in public health was 16.9 years. Most participants responded to the email invitation (83.7%). More details about demographics are in Tables 1 and 2.

Table 1

Descriptive Statistics (n = 147)

	Count	Percent
Male	33	22.40%
Female	107	72.80%
Something not listed	1	0.70%
No answer	6	4.10%
Source of Survey Response		
Email Invitation	123	83.70%
Web Link	24	16.30%

Table 2

How Many Years Have You Worked in Public Health? (n = 139)

	N	M	SD
Public Health Worker	50	13.48	10.53
LPHA Administrator	46	17.98	10.37
Engaged Decision Maker	34	20.41	11.83
Other	9	10.67	10.46
Total	139	16.48	11.15
Total (excluding other)	130	16.89	11.11

Location

Participants were asked what region of Missouri they work in (or attend school in) primarily. They were provided with a map of Missouri (see Figure 1) delineated by Highway Patrol troop areas. Regions A and C were sub-divided to tease out respondents from the Kansas City and St. Louis metro areas. Two days into the survey, an option for “statewide” work was added in response to feedback from survey respondents. The final version of the survey (contained in Appendix D) will include the statewide option, but remove the option for St. Louis County, which received zero responses; options for St. Louis and for region C will remain. Figure 1 and Table 3 contain details about the location of respondents, as well as details about their demographics for comparison.



Figure 1. Map of regions in Missouri based on Highway Patrol troop areas

Table 3

Survey Respondents' Areas of Primary Work or Residence (n = 147)

Area	Count	% of total	% Female	Email Invite
A - Kansas City	13	8.8%	66.7%	76.9%
A (not in KC)	8	5.4%	62.5%	87.5%
B	17	11.6%	66.7%	82.4%
C - St. Louis City	8	5.4%	87.5%	87.5%
C (not in St. Louis)	10	6.8%	80.0%	70.0%
D	26	17.7%	65.2%	84.6%
E	9	6.1%	88.9%	66.7%
F	34	23.1%	82.4%	94.1%
G	4	2.7%	100%	50.0%
H	6	4.1%	66.7%	83.3%
I	1	0.7%	100%	100%
Statewide	11	7.5%	81.8%	90.9%

Stakeholder Affiliation

Participants were asked which stakeholder affiliation best described them. Phase II of the #HealthierMO project has focused on involving professionals most closely engaged in the public health system. The vast majority of respondents (92.4%) met those criteria, although some respondents were students, policymakers, and members of the general public. See Table 4 for details about how respondents related to the public health system.

Table 4

Self-Description of Respondents' Relationship to the Missouri Public Health System (n = 146)

Which of the following best describes you?	Count	%
General public (Informed citizen)	5	3.4%
Student (Student in a public health program)	3	2.1%
Public Health Worker (Employee of a state or local public health agency)	51	34.9%
LPHA Administrator (Administrator or Director an independent local public health agency)	47	32.2%
Engaged Decision Maker (Member of a professional organization, university, local government, or organization focused on	37	25.3%
Policymaker (Member of a government department, legislature, or other organization who is responsible for making new rules, laws, or policies)	3	2.1%

General Findings from the Model

Each scale of the model was analyzed to identify its descriptive statistics before being used in further analysis (see Table 5). All scales could range from 1 to 6. The highest rated scale among participants was support transforming the public health system in general ($M = 4.97$),

followed by support for the #HealthierMO initiative ($M = 4.58$). Lower rated scales were for skepticism about the initiative ($M = 2.95$), which was desirable, and for social media engagement ($M = 3.39$).

Table 5

Descriptive Statistics for Entire Scale (N = 147)

Name	Description	Min.	Max.	Alpha	Mean	SD
Aware	Awareness of the initiative	1	6	0.86	3.84	1.30
Support	Support for the initiative	2	6	0.86	4.58	0.88
Engaged	Engagement with the initiative	2	6	0.65	3.91	1.03
Ownership	Ownership in the initiative	2	6	0.75	4.32	1.01
Connection	Social media engagement	1	6	0.93	3.40	1.43
Transform	Support transforming the public health system	2	6	0.84	4.98	0.83
Skepticism	Skepticism about the initiative	1	6	0.83	2.95	0.90
Represent	Representation by the initiative	1	6	0.81	4.01	1.10

Note. Min. = minimum; Max. = maximum; Alpha = reliability measured with Cronbach's Alpha.

Drilling Down Into the Findings

The levels of commitment for each scale were examined for their relationships to each other and split out by the profession of the respondent (i.e. public health worker, LPHA administrator, engaged decision maker) and by the Missouri region of the respondent. The reliability coefficients and their implications will be discussed in a following section on model validation. The levels of commitment are broken out by profession of respondent in Table 11 in Appendix A. Notably, the mean levels of awareness, support, engagement, and representation are consistently lower for public health workers than for LPHA Administrators or engaged decision

makers. Skepticism is highest ($M = 3.22$) among LPHA Administrators, although not unreasonably elevated. The levels of commitment by location are in Table 12 in Appendix A. Levels are consistent among locations and the sample sizes become too small to make reasonable comparisons between groups.

Perceptions of the Purpose of the Initiative

Participants were asked to assess whether they could describe the fundamental purpose of the #HealthierMO initiative to someone else. They were then later asked “What is the fundamental purpose of the #HealthierMO initiative?” The answer the survey was looking for was “Transforming the future of public health in MO.” Participant answers were scores on whether they accurately identified the fundamental purpose of the #HealthierMO initiative (Nailed it), were reasonably close such as describing the purpose as bringing people together or improve the quality of life in Missouri (Close), stated that they were unsure of the purpose, or did not answer.

Participants were also invited to “Name any other state that has done public health transformation similar to #HealthierMO,” then to “Name another state that has done public health transformation.” Both items offered a list of the 50 U.S. states as possible options. These two items were scored for whether the response was correct or incorrect, then combined for a score of 0 to 2 on how many states the individual correctly identified. This item and the purpose items were used as a measure of knowledge about the #HealthierMO initiative and state public health transformation at large.

Among participants who claimed that they could describe the fundamental purpose of the #HealthierMO initiative to someone else, 87.5% accurately described the purpose or got close;

however, nearly half (46.9%) could not identify a state that had engaged in a public health transformation. Among those who claimed to be unable to describe the fundamental purpose of the #HealthierMO initiative, 61.2% could not and none of them identified another transformative state. Therefore, most participants (66.2%) thought they understood the purpose of the #HealthierMO initiative and were, in fact, accurate in their descriptions. Those who were sure that they did not know were also accurate about their lack of knowledge. Specifics about response patterns on accuracy of perceptions are in Table 6. The text of the qualitative responses is contained in Appendix C.

Table 6

Accuracy of Perceptions About the #HealthierMO Initiative

I could describe the fundamental purpose of the #HealthierMO initiative to someone else.							
		Accurately described the purpose			Number of states correctly identified		
		Nailed it	Close	Missed it or N/A	2	1	0
True	96	73	11	12	21	30	45
		76.0%	11.5%	12.5%	21.9%	31.3%	46.9%
False	49	11	8	30	0	7	42
		22.4%	16.3%	61.2%	0.0%	14.3%	85.7%
Total	145	84	19	9	21	37	87
		57.9%	13.1%	29.0%	14.5%	25.5%	60.0%

Note: N/A means “No Answer”

Model Validation

Data Cleaning Revisited

As was mentioned previously, the data were initially screened for accuracy and missing data. Cases with few responses or excessive missing data were removed. Twenty cases with limited missing data were completed using multiple imputation (Tabachnick, & Fidell, 2007). Data were checked for multivariate outliers with a Mahalanobis test and two outlier cases were removed. That left 144 usable cases for the additional analysis. To satisfy the assumptions for multiple regression analysis, the remaining cases were checked for multicollinearity (all tolerances were greater than 0.1 and all VIF statistics were well below 10). For the mediated regression described below, I used heteroscedacity-consistent standard errors to control for any heteroscedacity in the model.

One case that was barely retained as a potential multivariate outlier ($p = .0013$) was later identified as a potential univariate outlier (Studentized Std. Residual = -3.61, Cook's Leverage = .066). This case was ultimately included in the data, although should probably be removed if the model is presented for publication. The remaining outlier indicators were within acceptable ranges (Studentized Std. Residual Min. = -2.48, Std. Residual Max. = 2.45). Residuals met the assumption of independence (Durbin-Watson statistic = 1.714). Linearity and homoscedasticity were assessed by examining a graph of standardized residuals plotted against the predicted values; both assumptions were met.

Reliability Analysis

Each scale was tested with a Cronbach's alpha for reliability (Cronbach, 1957). Most of the scales were reliable at the outset, with Cronbach's alpha coefficients between $r = .77$ and $r =$

.94. Five of the eight scales had reliability coefficients above .80, demonstrating excellent reliability according to guidelines for interpretation given by Nunnally and Bernstein (1994). All reliability coefficients are in Table 10 in Appendix A. The only scale that did not meet the .70 threshold was for *engagement*. The reliability for the engagement scale was $r = .65$.

Future Modifications to the Scales

The items in the engagement scale were examined to identify potential reasons for the low reliability among the items. The item “*It is worthwhile for me to work with other public health stakeholders when we share common ground*” (emphasis mine) did not relate reliably with the other two items (“I volunteer my time, resources, or expertise to the #HealthierMO initiative.” and “I regularly spend time coordinating with other public health stakeholders involved with #HealthierMO.”). We determined that the philosophical wording about collaborative effort being “worthwhile” did not capture the same information as the behaviorally-based items about actually volunteering and collaborating. For future iterations of the survey, the item will be changed to read “*I regularly work with other public health stakeholders when we share common ground on the #HealthierMO initiative*” (emphasis mine).

Levels of Commitment Core Model

The core model theorized that commitment was a linear process that began with awareness about the initiative. Awareness meant that the individual possessed sufficient knowledge about the initiative to hold an informed opinion, whether positive or negative. Increasing awareness about and familiarity with the initiative would interact with pre-existing support for transforming the public health system, mediated by feelings of representation within the initiative to lead to support for the initiative.

Support for the initiative should lead people to begin engaging with the initiative through connecting via social media, the website, and electing to receive email updates about the initiative. Increased interest in the initiative should lead to identification with the goals of the initiative as expressed by engagement with the initiative.

Engagement was defined as contributing resources to the initiative in the form of time, money, expertise, and reputation. Continued participation in the initiative by actively working with other stakeholders and persuading others by sharing information to build support for the initiative should lead to the deepest level of commitment: ownership.

Ownership described taking personal interest in accomplishing the goals of the initiative and a sense of personal pride at the success of the initiative. The initiative was not designed to be a permanent fixture in Missouri’s public health system; rather, it has a singular goal of uniting Missouri’s public health stakeholders to transform the future of the public health system in the state. Although it is expected that stakeholders initially see the #HealthierMO initiative as something external to themselves and their organization, the ultimate goal is that stakeholders realize that the #HealthierMO initiative is fundamentally an organizing mechanism and that the initiative has always been the existing public health stakeholders who work together toward transformation goals. Therefore, one sign of that transition to ownership is adopting the “we” language (vs. “they” language) that characterizes collective impact.

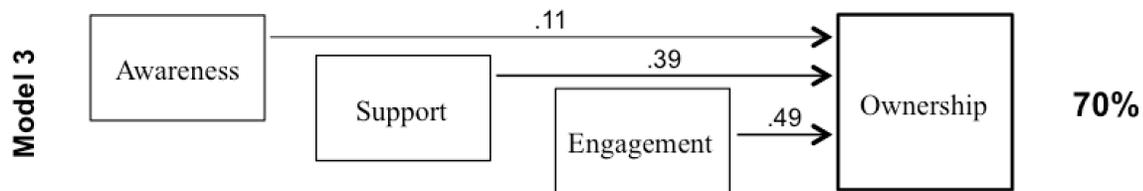


Figure 2. The four levels of commitment with their final beta values

Having established the theoretical model (depicted in Figure 2), we then tested the data to determine if the model functioned as theorized. We first established that the four core levels of commitment (awareness, support, engagement, and ownership) functioned linearly, using a regression model. We next established that feelings of representation by the initiative would mediate the relationship between awareness about the initiative and support for the initiative among public health stakeholders. We then determined that support for transformation in general was only weakly related to support for the #HealthierMO initiative specifically, eventually establishing their independence in their relationship to the effects of skepticism about the initiative. Finally, we concluded that skepticism about the #HealthierMO initiative was specific to the initiative (not a reflection of general lack of support for the transformation process) but that the overall high levels of support indicated overall belief in the initiative's mission.

Linear Function of the Four Levels of Commitment

If the theorized model was valid, then (a) each level of commitment should be significantly correlated to the others, and (b) the level of deepest commitment (ownership) should correlate most strongly with the levels closest to it in the model. In other words, although step 1 of awareness should be related to ownership, the level of engagement should be more strongly related. The correlations among the levels are shown in Table 7. The table shows increasing strength of relationship between ownership and levels of increasing proximity, providing support that the levels were indeed working linearly, exactly as predicted.

Table 7

Correlations Among the Levels of Commitment, n = 143

	Awareness	Support	Engagement
Ownership of the initiative	.66	.678	.753
Awareness about the initiative		.517	.717
Support for the initiative			.478
Engagement with the initiative			

Regression Model Predicting Ownership

To further clarify the relationships among the levels of commitment and establish the validity of the model, a regression analysis was conducted to determine how each commitment level predicted the deepest level of ownership. In step 1 of the regression model, commitment was regressed upon the first level of commitment, awareness alone. In the second step of the model, support was added as a predictor, and Step 3 included engagement, as well. Each step of the model significantly predicted ownership (Step 3: $F(3,140) = 110.4$, $MS = 34.39$, $p < .001$, $R^2 = .703$), with statistically significant increases in the R^2 value at each step (See Table 9).

As predicted, awareness significantly predicted ownership ($\beta = .66$) until support was added, at which point its predictive power weakened ($\beta = .42$), finally becoming non-significant ($\beta = .108$, $p = .12$) with the addition of engagement. The same pattern was noted for support ($\beta = .46$; $\beta = .39$; see Table 8). These findings support the linear functionality of the levels of commitment in that proximal levels are better predictors of ownership than distal levels. Furthermore, the predictive ability of the model rose from 44% at step 1 to 59% at step 2 and culminated at 70% with step 3.

Table 8

Model Summary for the Levels of Commitment, n = 143

Model	<i>B</i>	<i>SE</i>	Beta	<i>t</i>	Sig.	<i>R</i> ²
Step 1						
Awareness	.519	.050	.660	10.46	<.001	.435
Step 2						
Awareness	.332	.050	.422	6.69	<.001	
Support	.545	.075	.460	7.31	<.001	.590
Step 3						
Awareness	.085	.054	.108	1.56	0.12	
Support	.460	.065	.388	7.10	<.001	
Engagement	.480	.066	.489	7.29	<.001	.703

Table 9

Model Change Statistics for the Levels of Commitment, n = 143

Model	R	<i>R</i> ²	Adj. <i>R</i> ²	SE Estimate	ΔR^2	Change Statistics			
						ΔF	df ₁	df ₂	Sig. ΔF
1	.660	.435	.431	.764	.435	109.393	1	142	<.001
2	.768	.590	.584	.653	.155	53.369	1	141	<.001
3	.838	.703	.697	.558	.113	53.086	1	140	<.001

Representation Mediates Awareness and Support

Having established that the four levels of commitment functioned as they were designed to, we next turned to the mediating ability of the representation variable. We hypothesized that feelings of representation by the initiative would mediate the relationship between awareness

about the initiative and support for the initiative among public health stakeholders. Participants who felt that the initiative represented people like them and identified with the mission of the initiative would score higher on support. In other words, a primary factor explaining transition from awareness to support was the degree to which participants identified with the initiative and felt that it represented them and their interests.

A mediated multiple regression procedure (Hayes, 2013; Field, 2013) was used to test whether representation mediates the effect of awareness about the initiative on support for the initiative. Following the procedure outlined by Baron and Kenny (1986), we established that awareness was a significant predictor of representation, $B = .432$, $SE = .057$, $p < .001$, and that representation was a significant predictor of support, $B = .44$, $SE = .078$, $p < .001$. These results support the mediational hypothesis. Awareness initially predicted support, $B = .34$, $SE = .047$, $p < .001$. Awareness was weakened as a predictor of support after controlling for the mediator, representation, $B = .153$, $SE = .058$, $p = .009$ consistent with partial mediation.

The indirect effect was tested using a percentile bootstrap estimation approach with 5000 samples, implemented with the PROCESS macro for SPSS release 2.16.1 (Hayes, 2013) and with a Sobel Test (Sobel, 1982). The Sobel Test was significant, $Z = 4.49$, $p < .001$, and the bootstrap estimation further indicated the indirect coefficient was significant, $B = .191$, $SE = .036$, 95% C.I. [.1286, .2724]. Approximately 22% of the variance in support was accounted for by the predictors ($R^2 = .22$). Awareness was associated with support scores that were approximately .19 points higher as mediated by feelings of representation. Stakeholders who experienced higher levels of representation by the initiative were more likely to move from awareness to support for the initiative than stakeholders who did not feel that the initiative well

represented them or their interests. A depiction of the mediation effect of representation on the relationship between awareness and support is contained in Figure 3.

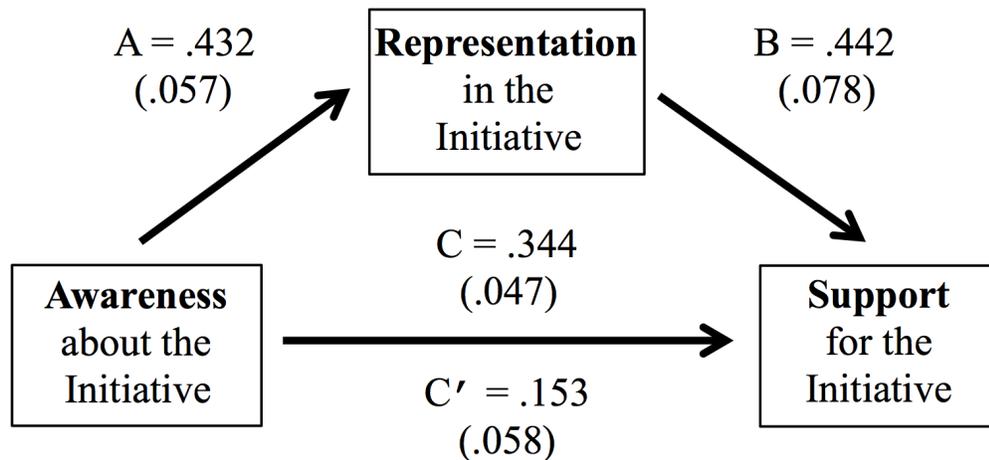


Figure 3. The mediating effect of feelings of representation by the initiative on the relationship between awareness about the initiative and support for the initiative

Support for the Initiative Distinct from General Support

At the outset, we knew that support for the #HealthierMO initiative might well be an expression of general support for transforming the public health system in Missouri. Because it was vital that we be able to untangle general support from initiative-specific support, we created a scale for support of the transformational process in general (transformation). This scale focused on the need for transformation of Missouri's public health system and was designed to be distinct from support for the #HealthierMO initiative, specifically.

We hypothesized that support for transformation in general would be positively related to support for the #HealthierMO initiative specifically, but the relationship would be weak. The correlation between support in general and support in specific was $r = .23$. This finding is consistent with a weak positive relationship between the variables. Our next step was to

determine the relationship between skepticism and these two types of support.

The Role of Skepticism

Having established the functional relationships among the four levels of commitment and explored the mediating effects of representation on the first two levels, we next turned to the role of skepticism in the model. Skepticism was a general term describing lack of support for the initiative. It was theorized that weak or non-support, regardless of its motivation, would be expressed as tepidness towards the efficacy of the initiative. Items describing skepticism were “The #HealthierMO initiative may be well intentioned, but it is unlikely to make a difference.” and “I am not convinced that the #HealthierMO initiative will work.” We hypothesized that skepticism about the #HealthierMO initiative would be negatively related to support for the #HealthierMO initiative, but should not be related to support for public health transformation in general. Furthermore, based on the findings about the mediating effect of representation, skepticism should relate negatively to representation, as well.

The correlations among the variables support the hypotheses (see Figure #4) Skepticism is strongly negatively related to support for the #HealthierMO initiative ($r = -.68$) and to representation ($r = -.60$), but is unrelated to Support for transformation in general ($r = -.05$). This further supports the independence of support for transformation in general from support for the #HealthierMO initiative specifically. The independence of the variables allows for comparing their means, especially longitudinally, to determine if the initiative begins to lose support among stakeholders and, hopefully, to remediate the loss of support.

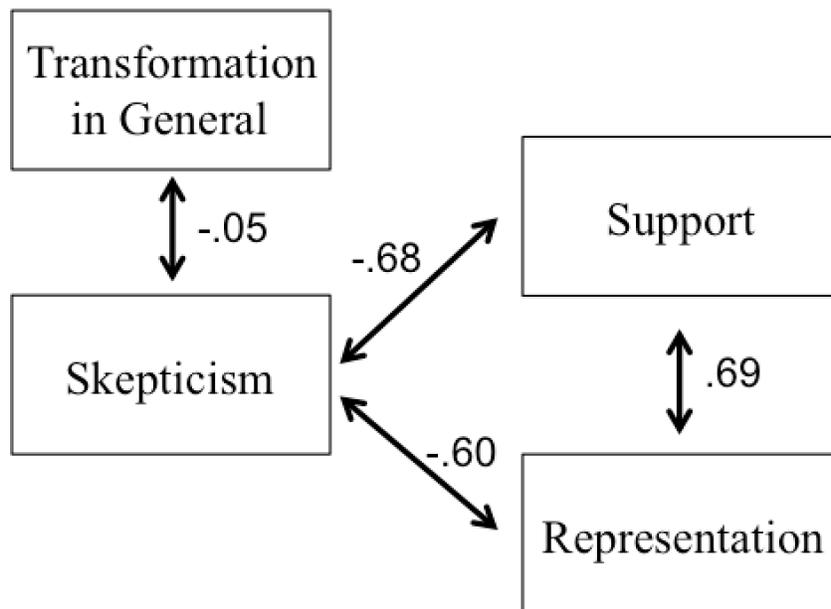


Figure 4. Relationships among skepticism, support, representation, and support for transformation. Skepticism is unrelated to support for transformation in general but strongly related to support for #HealthierMO.

The Moderating Effect of Representation on Skepticism and Support

Seeing that skepticism was strongly negatively related to support for the initiative but that feeling represented was strongly positively related to support, we considered that perhaps feelings of representation would have some sort of moderating effect, such that people who felt more strongly that the initiative represented them would not be as affected by skepticism about the initiative, or that skepticism would not undermine their support for the initiative.

We hypothesized that feelings of representation by the initiative would moderate the relationship between skepticism about the initiative and support for the initiative among public stakeholders. A moderated multiple regression procedure (Hayes, 2013; Field, 2013) was used to test this hypothesis. Using the SPSS add-in PROCESS written by Andrew Hayes (Hayes, 2013),

the predictor, moderator and interaction term (predictor x moderator) were regressed on the dependent variable in a forced entry regression analysis. I used heteroscedacity-consistent standard errors to control for any heteroscedacity in the model.

The interaction term was not statistically significant, $b = .053$, 95% CI $[-.014, .120]$, $t = 1.56$, $p = .12$. Although the interaction term was not significant, I plotted a simple slopes analysis in which the relationship between the predictor and outcome was examined at a level one standard deviation below the mean (low), at the mean (medium), and one standard deviation above the mean of the moderator (high). The R-square increase due to the interaction was non-significant, $R^2 = .005$, $F(1,140) = 2.44$, $p = .12$. Figure 5 illustrates the moderating effect of representation on the relationship between skepticism and support.

The finding that representation does not moderate the relationship between skepticism and support suggests that (a) skepticism about the initiative undermines support for the initiative and therefore should be addressed, but (b) skepticism cannot be addressed by demonstrating to stakeholders that the initiative represents them. Stakeholders may feel that the initiative speaks for them or is well intentioned, but still doubt that the initiative will succeed. The necessary communication strategy, therefore, would be to show stakeholders how the initiative will achieve its goals and to broadly share stories of success of effectiveness in completing stated objectives. As was noted in a prior convening, stakeholders had seen other initiatives try and fail to change the public health system in Missouri and wanted to know how #HealthierMO could succeed when so many others had failed.

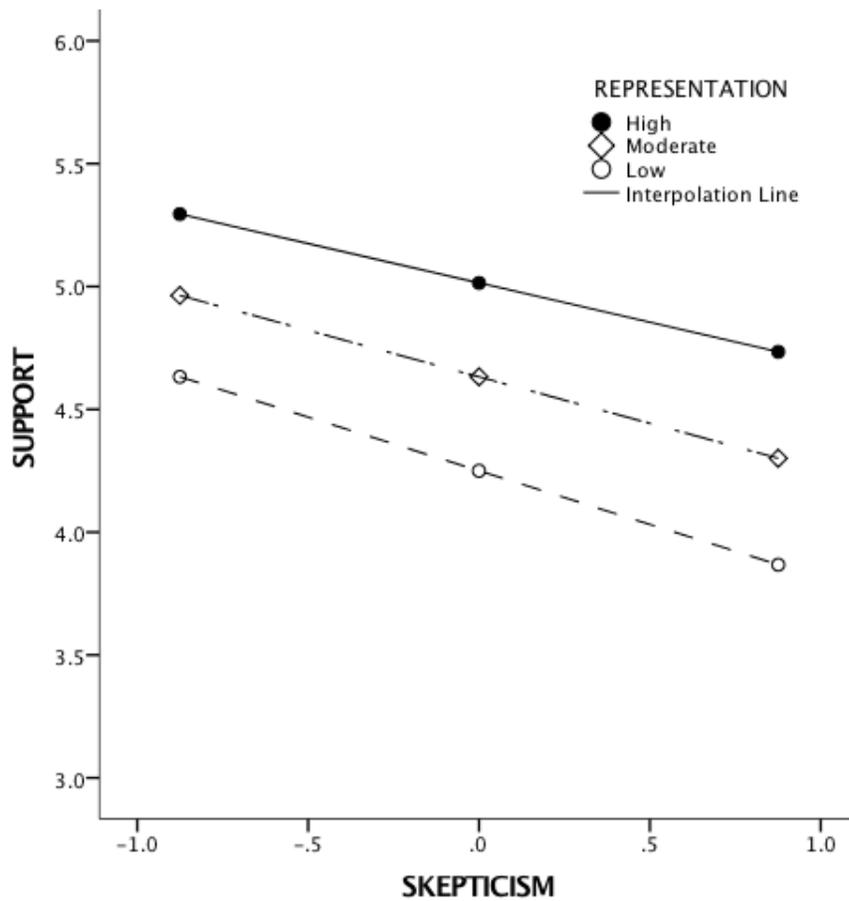


Figure 5. The moderating effect of feelings of representation by the initiative on the relationship between awareness about the initiative and support for the initiative. The parallel lines indicate that the skepticism undermines support regardless of the level of representation.

Communication Implications

The Four Levels of Commitment Function Linearly

The four states of commitment move sequentially, as designed. Awareness about the initiative leads to support for the initiative, especially when individuals feel that the initiative represents them and their interests. Support for the initiative leads to engagement in the initiative,

such as contributing time, money, resources, and reputation to the initiative's goals. The deepest level of commitment is ownership in the initiative, taking personal pride in the success of the initiative and feeling that its success is in part due to that individual's effort. Evidence for the linear nature of the commitment model demonstrates that the survey measurement tool indeed functions as it was designed to. Furthermore, the linearity of the commitment model means that it makes sense to talk about *moving through* the levels of commitment, *deepening levels* of commitment, or *becoming more committed* to the initiative's success.

Representation Mediates Between Awareness and Support

The best way to move stakeholders from awareness to support is to emphasize how the initiative represents them. Communication efforts aimed at increasing awareness should emphasize representation from the outset with messages about how “you have a place” and “your voice is heard” in the initiative. Efforts at increasing support should likewise emphasize representation. The message of representation should be accompanied by demonstrations of how the initiative is grassroots, comprises public health professionals at every level, does not move without establishing the support of stakeholders, is not seeking to dictate an outcome but rather to organize stakeholders to transform their own system, and requires the participation of stakeholders from across the state if it is to succeed. The focus of the message should be that “people just like you” support #HealthierMO.

Representation Does Not Moderate Skepticism

There are limits to the effects of representation. Specifically, representation does not moderate the relationship between skepticism and support. While skepticism that the initiative can achieve its stated goals undermines support for the initiative, the remedy is not to promote

how well the initiative represents individual stakeholders. Representation cannot repair skepticism. An individual can feel that the initiative is rightly intentioned, focused on a worthy outcome, and populated by “people like me”, but still doubt that the initiative will be able to achieve its lofty goals. Therefore, skepticism should be dealt with directly by demonstrating how the initiative will achieve its goals, the planning behind its efforts, successful transformations in other states that serve as the model for #HealthierMO, the widespread support for the initiative among public health professionals statewide, and the proven efficacy of the initiative.

Essentially, skeptics want to know “Why will this initiative succeed where others have failed?”

Support for #HealthierMO is Distinct from Support for Public Health Transformation

The findings indicate that this model can track support for #HealthierMO, so that administrators can determine if the initiative is faltering and then fix it. If support on both the variable of support (support for the #HealthierMO initiative) and transformation (support for transforming the public health system) remain high, then the initiative can be said to be functioning well. If support for both variables drops, that indicates there is general skepticism toward the transformation process or the role of public health in the state. This condition could not be dealt with solely within the initiative. However, if support for the initiative in specific areas falters but support for transformation remains high, then the initiative is going off the rails. Staff should consider other levels of commitment to ascertain where the problem lies.

Summary

A primary goal Phase II of the Transforming the Future of Public Health in Missouri (#HealthierMO) initiative was to develop a way to measure commitment to the initiative among stakeholders. When existing commitment models proved inadequate to the unique structure of a transformative public health initiative, the evaluators and communication specialists set about to create their own tool. Development of the commitment survey began with creating a commitment model that was appropriate to the needs of the initiative. The commitment model was designed to address (a) levels of commitment to the #HealthierMO initiative, (b) distinguish commitment to the initiative from general commitment to the transformation process, (c) measure non-commitment (skepticism) towards the initiative, (d) explore the implications for communication within the initiative based on the pattern or commitment, and if possible, explore the interactions of the components of the model as well as to track the level of support longitudinally.

Upon completion of the working model, a survey was developed that could measure awareness about the initiative, support for the initiative, engagement with the initiative, and ownership of the initiative. Furthermore, the survey measured support transforming the public health system in general, skepticism about the initiative, representation by the initiative, and connection to the initiative through social media. The survey was delivered to 147 public health stakeholders in Missouri.

The findings showed moderately high levels of support for the #HealthierMO initiative among the stakeholders combined with moderately low levels of skepticism. A sense of ownership in the initiative was highest among engaged decision makers; skepticism was highest

among LPHA Administrators. These levels of support will be monitored with the administration of the same survey over time.

Furthermore, the commitment model was examined statistically to determine if and how it worked. The linear nature of the commitment model was established; stakeholders move sequentially through “deeper” levels of commitment and each level of commitment predicts ownership better than the preceding level. Although stakeholders progress from awareness to support, that relationship is mediated by representation in the initiative, such that stakeholders who felt that the initiative represented them by speaking for them and including them, were more likely to support the initiative. Support for the initiative was determined to be distinct from general support for public health transformation and skepticism about the initiative was unrelated to general support for public health transformation, suggesting that if the #HealthierMO initiative ever began to lose support among stakeholders, the level of support specifically for the initiative could be measured and addressed because support for #HealthierMO is not simply a function of desiring transformative change in public health.

Skepticism about the initiative was related to lowered levels of support for the initiative, as expected; however, feeling represented by the initiative did not moderate this effect, meaning that skepticism can only be countered by clarifying how the initiative will achieve its goals and by demonstrating the efficacy of the initiative. These findings have implications for how the initiative communicates with stakeholders and provide guidance for how to maintain or improve commitment to the initiative.

Further data collection will be required to demonstrate causal links among the components of the commitment model, but the existing data demonstrate that the model is

working as it was designed to work, is reliably measuring the construct of commitment to the #HealthierMO initiative, and shows promise in measuring commitment longitudinally. The model and survey will be made available to other states that want to use it with their public health transformation projects and their data will be added to Missouri's data to further examine the model.

References

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Cronbach, L. J. (1957). The two disciplines of scientific psychology. *American Psychologist, 12*, 671-684. doi: 10.1037/10049-022
- Field, A. (2013). *Discovering statistics using IBM SPSS Statistics* (4th ed.). Sage: UK.
- Hayes, A. F. (2013). *An introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.
- Little, T. D. (2013). *Longitudinal structural equation modeling*. New York: Guilford Press
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological methodology 1982* (pp. 290-312). San Francisco: Jossey-Bass.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Allyn and Bacon.

Appendix A: Commitment Model

The commitment model developed for the #HealthierMO initiative is in Figure X. The model consists of four, increasing levels of commitment: awareness, support, engagement, and ownership. Each level of commitment is anchored by at least two measurable behaviors (called *Activism*) that formed the basis for creating and choosing the items on the survey. Each level of commitment was measured by the average of three items. Additionally, three-item scales were developed to measure social media engagement, support for the transformation of public health in Missouri, skepticism about the #HealthierMO initiative, and belief that the respondent is represented in the goals of the #HealthierMO initiative. The means, standard deviations, reliability coefficients, and inter correlations are contained in Table 10.

Table 10

Descriptive Statistics for each Variable in the Commitment Survey (n = 147)

	Mean	SD	Reliability	Aware	Support	Engaged	Ownership	Connection	Transform	Skepticism
Aware	3.84	1.30	0.86							
Support	4.58	0.88	0.86	.474**						
Engaged	3.91	1.03	0.65	.716**	.432**					
Ownership	4.32	1.01	0.75	.635**	.650**	.743**				
Connection	3.40	1.43	0.93	.560**	.491**	.487**	.513**			
Transform	4.98	0.83	0.84	.313**	.234**	.304**	.397**	.178*		
Skepticism	2.95	0.90	0.83	-.290**	-.676**	-.376**	-.471**	-.369**	-0.052	
Represent	4.01	1.10	0.81	.498**	.685**	.673**	.704**	.456**	.217**	-.596**

Note. SD = standard deviation; * statistically significant $p < .05$; ** statistically significant $p < .01$; reliability measured with Cronbach's Alpha.

Commitment Model for #HealthierMO Initiative

Commitment	Awareness	Support	Engagement	Ownership
Level of Commitment	<p>Sufficient knowledge about the initiative to hold an informed opinion</p> <p>Knowledge about the <i>existence</i> of the initiative</p> <p>Knowledge about the <i>purpose</i> of the initiative</p>	<p>Share the vision of the initiative</p> <p>Agreement with the <i>necessity</i> of the initiative</p> <p>Think and speak positively about initiative</p>	<p>Contribute resources to the initiative</p> <ul style="list-style-type: none"> • Time • Money • Expertise • Reputation <p>Understand need for long-term support of the initiative</p>	<p>Collective impact: working together to move outcomes; adopt “we” vs. “they” language</p> <p>Valuing one’s role in the initiative’s success</p> <p>Taking personal pride in the initiative’s success</p>
Activism <i>Measurable</i>	<p>Familiarity: correctly acknowledge the existence and purpose of the initiative</p> <p>Interest: willingness to learn more about the initiative</p>	<p>Representation: belief that the initiative’s goals include “people like me”</p> <p>Connection: social media & website engagement, add name to the map, receive email updates, provide input</p>	<p>Participation: actively working with other stakeholders to contribute to the initiative</p> <p>Persuasion: Share information with others in order to build support for the initiative</p>	<p>Integration: integrate the initiative’s goals with one’s existing professional work</p> <p>Promotion: offer creative direction to the initiative</p> <p>Protection: defend the initiative</p>
Communication strategy <i>How does the initiative align with their motivators?</i>	<p>Familiarity -> Interest</p> <p>Promote the need for and the importance of the initiative</p> <p>Identify the problem then connect the initiative as part of a solution.</p> <p>Demonstrate benefits of supporting the initiative</p>	<p>Interest -> Identification</p> <p>Demonstrate the personal relevance of the initiative</p> <p>Demonstrate the need for personal investment in the solution.</p> <p>Describe the avenues of engagement and actively encourage engagement.</p>	<p>Identification -> Participation</p> <p>Demonstrate models of education and persuasion to illustrate heightened engagement.</p> <p>Encourage integration of the goals of the initiative into personal and professional career trajectory.</p>	<p>Participation -> Commitment</p> <p>Model and promote integration</p> <p>Direct, affirm, and support constructive integration.</p> <p>Guard against fragmentation.</p> <p>Sustain interest while allowing others to do the same</p>
Non-Engagement (Skepticism) <i>Regardless of cause, non-engagement manifests as skepticism</i>	<p>Apathy</p> <p>Don’t know</p> <p>Don’t care</p> <p>Don’t see the need</p>	<p>Antipathy</p> <p>Conflicts with values or beliefs</p> <p>Conflicts with personal or financial interests</p> <p>Superficiality – must appear supportive, but quietly desire failure (<i>potential sabotage</i>)</p>	<p>Risk Aversion</p> <p>Risk to personal or professional reputation</p> <p>Too much time</p> <p>Too much cost</p>	<p>Disinclination</p> <p>Not temperamentally inclined to take leadership</p> <p>Unable to provide creative ideas and direction</p> <p>Trust; historical conflicts</p> <p>Unaware of leadership needs</p>

Figure 6. Commitment model used by the #HealthierMO initiative

Table 11

Levels of Commitment by Profession (n = 147)

	Public Health Worker <i>n</i> = 51		LPHA Administrator <i>n</i> = 47		Engaged Decision Maker <i>n</i> = 37		Other (Student, Public, Policymaker) <i>n</i> = 12	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Aware	3.49	1.39	3.74	1.16	4.50	1.19	3.75	1.14
Support	4.42	0.89	4.45	0.87	4.90	0.90	4.81	0.50
Engaged	3.66	1.07	3.78	0.88	4.52	1.01	3.61	0.84
Ownership	4.15	1.02	4.10	0.90	4.81	1.04	4.33	0.85
Connection	2.96	1.46	3.41	1.38	3.81	1.32	3.97	1.37
Transform	4.95	0.92	4.90	0.81	5.12	0.76	4.97	0.83
Skepticism	3.06	0.93	3.22	0.81	2.63	0.88	2.44	0.64
Represent	3.76	1.10	3.84	1.19	4.60	0.87	3.90	0.75

Table 12

Levels of Commitment by Location (n = 146)

	Aware	Support	Engaged	Ownership	Connection	Transform	Skepticism	Represent
A - Kansas City (n = 13)	4.03 (1.40)	4.31 (0.89)	4.18 (1.24)	4.48 (0.96)	3.62 (1.39)	5.64 (0.67)	3.00 (1.04)	3.52 (1.13)
A (not in KC) (n = 8)	3.92 (1.59)	4.29 (0.79)	3.83 (0.96)	3.79 (1.01)	3.88 (1.11)	4.33 (1.40)	3.00 (0.71)	3.72 (1.23)
B (n = 17)	3.69 (1.50)	4.91 (0.51)	3.78 (1.03)	4.43 (0.93)	3.59 (1.69)	4.94 (0.76)	2.99 (0.81)	4.23 (0.88)
C - St. Louis (n = 8)	3.92 (1.61)	4.96 (0.72)	3.88 (0.91)	4.28 (1.47)	2.92 (1.93)	4.97 (0.71)	2.42 (0.79)	4.42 (0.89)
C (not in StL) (n = 10)	3.67 (1.59)	4.23 (1.04)	4.03 (1.32)	4.23 (1.30)	3.3 (1.51)	5.2 (0.92)	3.10 (0.92)	4.03 (1.37)
D (n = 26)	3.79 (1.12)	4.85 (0.84)	3.87 (1.11)	4.5 (0.95)	3.57 (1.40)	4.97 (0.71)	2.73 (1.03)	4.16 (1.14)
E (n = 9)	3.93 (1.26)	4.41 (1.06)	3.51 (0.83)	4.11 (0.71)	3.11 (1.37)	5.26 (0.60)	3.37 (1.21)	3.44 (1.32)
F (n = 33)	3.89 (1.25)	4.69 (0.88)	4.00 (1.07)	4.38 (1.05)	3.28 (1.38)	4.96 (0.78)	2.83 (0.71)	4.26 (0.87)
G (n = 4)	3.42 (0.63)	4.5 (0.58)	3.83 (0.64)	4.17 (0.58)	3.92 (1.26)	4.25 (0.74)	3.16 (0.18)	4.25 (0.74)
H (n = 6)	3.56 (0.96)	3.33 (0.94)	3.22 (0.50)	3.22 (0.66)	2.56 (0.96)	4.67 (0.70)	3.94 (1.12)	2.39 (1.12)
I (n = 1)	6.00 (0.00)	6.00 (0.00)	3.33 (0.00)	4.33 (0.00)	6.00 (0.00)	6.00 (0.00)	4.00 (0.00)	4.00 (0.00)
Statewide (n = 11)	3.97 (1.39)	4.48 (0.58)	4.42 (0.86)	4.64 (0.89)	3.24 (1.34)	4.73 (0.87)	2.88 (0.58)	4.3 (0.85)
Total (N = 146)	3.84 (1.30)	4.58 (0.88)	3.91 (1.03)	4.32 (1.01)	3.4 (1.43)	4.98 (0.83)	2.95 (0.90)	4.01 (1.10)

Note. See Figure X for a graphic of the Missouri regions. Region I with a single respondent is not suitable for comparisons. Findings are Mean (SD).

Appendix B: Survey Items by Subscale

The following scales were anchored with a Likert-response options on a scale from 1 to 6 in which 1 = strongly disagree and 6 = strongly agree. Items in italics are reverse scored. The actual survey items were not presented in this order. See Appendix D for the actual survey.

Awareness

I know enough about the #HealthierMO initiative to have an opinion about it.

I am not very familiar with the #HealthierMO initiative.

I would need to know more about #HealthierMO to have an informed opinion.

Support

I believe #HealthierMO has the potential to improve Missouri's public health system.

I like what I have heard so far about #HealthierMO efforts to improve Missouri's public health system.

I am generally positive about the #HealthierMO initiative.

Engagement

I volunteer my time, resources, or expertise to the #HealthierMO initiative.

I regularly spend time coordinating with other public health stakeholders involved with #HealthierMO.

I frequently work on the #HealthierMO initiative with other public health stakeholders when we share common ground.

Ownership

I would take personal pride in the success of the #HealthierMO initiative.

I would like for others to support the #HealthierMO initiative as much as I do.

I believe that my involvement in #HealthierMO is important to its success.

Social Media Engagement

I visit social media regarding the #HealthierMO initiative.

I follow the #HealthierMO initiative on social media.

I use social media to stay informed about #HealthierMO.

Transformation Support

Missouri's public health system functions well the way it is now.

Missouri's current public health system needs a lot of improvement.

Missouri needs a better public health system than what we currently have.

Non-Support/Skepticism

The #HealthierMO initiative is probably not going to change public health in Missouri.

The #HealthierMO initiative may be well intentioned, but it is unlikely to make a difference.

I am not convinced that the #HealthierMO initiative will work.

Representation

My voice is heard in the #HealthierMO initiative.

The #HealthierMO initiative represents me.

The #HealthierMO initiative wants to include people like me.

Appendix C: Perceptions of the Purpose of the Initiative

The following responses were offered to the question “What is the fundamental purpose of the #HealthierMO initiative?” Answers were rated for accuracy and the number of responses in each category are in Table 13. Responses have been edited for spelling and capitalization, but the substance of the response has been retained.

Table 13

What is the fundamental purpose of the #HealthierMO initiative? (N = 147)

Nailed it	86
Close	19
Missed it	9
No answer	33

Nailed it

- Identify opportunities for change into a stronger more effective public health system in the state.
- To develop a common message and uniform strategy to improve the public health structure in MO
- To help guide transformation of public health system in Missouri
- To identify funding, sources, stakeholders, etc. to transform public health in Missouri and improve outcomes for Missouri residents.
- To improve public health in Missouri by presenting a combined vision and strategy across public health
- To improve the public health system, capacity, and infrastructure in Missouri
- To progress Public Health in Missouri
- To spur system-wide change for improvement in public health state-wide.
- To transform Public Health in Missouri
- To improve the public health system in MO, however simply changing the way LPHA function does not address the health system just one entity
- To transform the current public health system
- To transform Public Health to be as effective and sustainable
- Change the way public health works in Missouri in an effort to better the state

An attempt to make systemic changes in the public health system in Missouri to become stronger and more sustainable

Improve public health in Missouri

Transform the Public Health System in Missouri into a strong, sustainable system prepared to meet the future public health needs of Missouri's citizens

Reverse the downward spiral of health status in the state. From 24th in 1990 to 40th in 2017.

Assuring that the majority of health departments actually understand and serve their communities with all ten of the essential public health services and at least 95% of the residents of the state are protected by a PHAB accredited local health department.

Create a stronger public health system in Missouri to have an impact on health and wellness for every Missouri resident

Improve health of Missourians by overhauling our public health system

To improve the public health system in Missouri by bringing together all interested parties to advocate for public health and make it a unified effort instead of a fractured effort.

Create a public health system in Missouri that effectively provides foundational public health services to all citizens in Missouri.

Effect long-term, systemic change and improvement to the public health system in MO, including funding, organization, future workforce, and other areas - leading to better health outcomes for the citizens of MO.

Strengthen the public health infrastructure

To bring all public health stakeholders together to work toward common public health goals with a common voice.

"Transform public health" I would imagine this means the following: Improving technology, efficiency, improving communication to the public/legislators what we do, and finding new funding sources to provide additional services to protect the public.

Create a better public health system in Missouri

Improve Public Health for the citizens of Missouri

Review current system and consider alternatives

To improve public health in Missouri

To transform our public health system for the better

To transform public health in Missouri for a stronger public health for all

Transform the current public health system

Comprehensive public health service throughout MO

To build a stronger public health system

Improve public health

Building a stronger Public Health system that can positively impact the citizens of Missouri by being able to address the challenges of our different populations and working together across the many disciplines.

Improve Public Health in Missouri

To transform the public health system so that every Missourian has an opportunity live a healthier life.

Transform public health into a stronger, consistent and more unified initiative

Transform public health services in Missouri.

To transform public health into a stronger system that offers every Missouri Resident the opportunity for a healthier life.

To improve the public health system in MO

To strengthen the public health system so that all Missourians have access to high quality public health services

To transform public health in Missouri by establishing fundamental standards for public health agencies (Public Health 3.0), increase collaboration, improve the workforce and identify sustainable solutions to our problems that go beyond funding.

Improve public health in Missouri

To improve the Delivery of Public Health across all sectors of the population. All Health Departments need to be doing the same fundamental public health services across the board. Funding for Local Public Health needs to be give priority in the legislative arena and State Public Health needs to look at alternative funding opportunities for LPHA's.

Create a stronger foundational public health system/infrastructure that can meet our populations needs

Public health transformation

To improve the public health system in MO

Transfer public health into a stronger voice for every MO resident

I believe it is to improve the health of Missourians by making the community aware of what we do and how we can improve health thru preventative services. Awareness of our services

Improve the public health system in Missouri

More efficient, effective public health system

To define and align public health services across all counties and regions in Missouri that reflect current social realities

To improve Missouri's health system

To transform the PH system in MO using evidence-informed strategies

Transform MO's public health system

Transform the public health system across the state of MO

To transform MO public health to offer all Missourians the opportunity to live a healthy life

To strengthen the MO public health infrastructure

To improve the quality and readiness of local public health entities and help them conform to a common, shared standard.

To strengthen the PH system in Missouri

To transform how public health is addressed in the state

To transform public health in Missouri.

Creating a stronger, more sustainable public health system (and hopefully improving Medicaid income guidelines is part of that!)

Modernize the public health system in Missouri to effectively provide foundational public health services to all citizens in Missouri.

Transform public health systems in MO to be more effective and modern

Grassroots effort to transform the public health system to work better for everyone to improve public health.

Transforming Missouri's public health system to make it stronger, more effective and more sustainable.

Transforming the public health system in Missouri to be a more sustainable, responsive and efficient system.

To improve public health services and reach

To create a more sustainable and efficient public health system that serves all of Missouri citizens

To transform MO's outdated and unrepresentative PH system into a program with focus on foundational public health services.

To transform the public health system landscape in Missouri into something that is more useable and accessible to all Missourians.

Develop foundational public health services that are consistent across the state and increase access to those services.

Improve the health of Missourians through improved public health system

Lead transformation of the public health system in MO through reorganization, advocacy, prioritization and coordination among the PH departments.

The fundamental purpose of the initiative is to gather feedback from PH stakeholders to develop a plan to transform the PH system in MO

To advance the PH system in MO to state-of-the-art

To improve the public health system through change

To transform the Missouri system of public health

Improve public health in the state of Missouri

Transforming the future of public health in MO

Strengthening Missouri's public health system

To provide for a standardized set of services across the state that align with the foundational public health services model.

Improve public health and the health of all Missourians

Close

Better, more effective and affordable healthcare.

To help the state of Missouri understand what a bargain Public Health can be if it is allotted the resources to do its job

To impact the health of Missouri residents
To improve the quality of life for Missouri citizens
To make a healthier Missouri
To get Missourians on the road to being healthier.
To make sure basic care or at least access to is provided to MO citizens
Increase funding for public health to meet the health needs of MO residents
Working smarter for our public
Improve the health system in Missouri.
Improve citizens' health in Missouri.
To create a healthier Missouri population
Bring MO public health officials together to work toward common public health goals
Combine resources for optimal reach
Improve Missourians health and access to healthcare
Improve the lives of all who live in Missouri
Improving the health of Missourians
Better health of Missourians
Improve health of Missourians

Missed It

Community collaborative
No clue
Don't know
I really don't know much about it or any states that have done anything similar.
Don't know.
I honestly don't know
Really don't understand much about it
No idea
Unknown

Appendix D: Survey**2019 #HealthierMO Initiative Survey**

Thank you for participating in this survey about the #HealthierMO initiative. Your responses will be combined with others and used to help us better understand the level of support for #HealthierMO and how much public health stakeholders know about the initiative. We know that you are busy, so this survey typically takes between 5 and 6 minutes to complete. We appreciate your time and sharing your opinion with us. Let's get started...

1. Which of the following best describes you?

General public (Informed citizen)

Student (Student in a public health program)

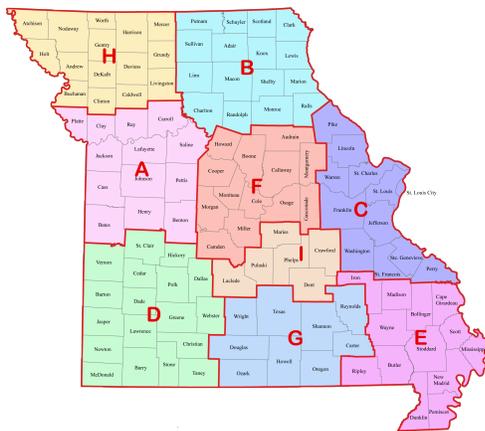
Public Health Worker (Employee of a state or local public health agency)

LPHA Administrator (Administrator or Director an independent local public health agency)

Engaged Decision Maker (Member of a professional organization, university, local government, or organization focused on public health)

Policymaker (Member of a government department, legislature, or other organization who is responsible for making new rules, laws, or policies)

2. In which region do you primarily work (or attend school)?



- A - Kansas City E
- A (not in KC) F
- B G
- C - St. Louis City H
- C (not in StL) I
- D Statewide

3. How much do you agree with these statements about the #HealthierMO initiative? (1/3)

- I know enough about the #HealthierMO initiative to have an opinion about it.
- I visit social media regarding the #HealthierMO initiative.
- I believe #HealthierMO has the potential to improve Missouri’s public health system.
- *Missouri’s public health system functions well the way it is now.*
- The #HealthierMO initiative is probably not going to change public health in Missouri.
- I volunteer my time, resources, or expertise to the #HealthierMO initiative.
- My voice is heard in the #HealthierMO initiative.
- I would take personal pride in the success of the #HealthierMO initiative.

4. I could describe the fundamental purpose of the #HealthierMO initiative to someone else.

True False

5. How much do you agree with these statements about the #HealthierMO initiative? (2/3)

- *I am not very familiar with the #HealthierMO initiative.*
- I follow the #HealthierMO initiative on social media.
- I like what I have heard so far about #HealthierMO efforts to improve Missouri's public health system.
- Missouri's current public health system needs a lot of improvement.
- The #HealthierMO initiative may be well intentioned, but it is unlikely to make a difference.
- I regularly spend time coordinating with other public health stakeholders involved with #HealthierMO.
- The #HealthierMO initiative represents me.
- I would like for others to support the #HealthierMO initiative as much as I do.

6. How many years have you worked in public health?

Open-ended text box; restricted to numeric entry only

7. How much do you agree with these statements about the #HealthierMO initiative? (3/3)

- *I would need to know more about #HealthierMO to have an informed opinion.*
- I use social media to stay informed about #HealthierMO.
- I am generally positive about the #HealthierMO initiative.
- Missouri needs a better public health system than what we currently have.
- I am not convinced that the #HealthierMO initiative will work.

- It is worthwhile for me to work with other public health stakeholders when we share common ground.
- The #HealthierMO initiative wants to include people like me.
- I believe my involvement in #HealthierMO is important to its success.

8. I am...

Male

Female

Something not listed

9. Name any other state that has done public health transformation similar to #HealthierMO.

Drop down list of 50 states option

10. Name a second state that has done public health transformation.

Drop down list of 50 states option

11. What is the fundamental purpose of the #HealthierMO initiative?

Open ended text box

This is the end of the survey!

We appreciate your time. The survey will be open for two weeks and then we will summarize the findings and make them available. If you have any questions about the survey email Todd Daniel or for questions about the #HealthierMO initiative you can reach Casey Parnell.

Thank you!

Items in italics are reverse scored. These items should not be italicized on the actual survey.

Items 3, 5, and 7 that ask about agreement with a statement are all scored on a Likert scale from 1 to 6.

Strongly disagree (1)

Disagree

Mildly disagree

Mildly agree

Agree

Strongly agree (6)

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