Missouri Department of Health and Senior Services Division of Community and Public Health Section for Environmental Public Health Bureau of Environmental Epidemiology Environmental Public Health Tracking Program

# MISSOURI EPHT PROGRAM EVALUATION PLAN BEGINNING AUGUST 1, 2016





# Published By:

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# **Table of Contents**

Introduction	1
Stakeholder Assessment	2
Background and Description of the Program and Program Logic Model	3
Focus of the Evaluation	.12
Gathering Credible Evidence: Data Collection	.14
Justifying Conclusions: Analysis and Interpretation	.16
Ensuring Use and Sharing Lessons Learned: Report & Dissemination	.17

# **INTRODUCTION**

The Missouri Environmental Public Health Tracking (EPHT) team believes that on-going evaluation efforts should be conducted not only to demonstrate that a project works, but also to improve the way it works. Missouri's evaluation approach involves regularly scheduled collaborations with the EPHT Virtual Technical Advisory Group (VTAG), data stewards, and stakeholders. Evaluation guidance is obtained from the W.K. Kellogg Foundation's *Evaluation Handbook* and is rigorous in its efforts to determine the worth of the program and to guide program implementation and management. Although evaluation is useful to document impact and demonstrate accountability, it should also lead to a more effective program.

# **Evaluation Goal**

The goal of this evaluation is to assist in determining the value of the Missouri EPHT program and to guide program implementation and management. This evaluation will document impact and demonstrate accountability to lead to a more effective program while continually improving public health outcomes. In addition, this evaluation will assist in determining the funding needs of the program for the future.

#### **Evaluation Team**

Our evaluation team consists of EPHT program staff and key advisors. The key advisors were asked to participate on the team to review plans to ensure needs for information is met.

Roles and Responsibilities of the Evaluation Team Members			
Individual	Role	Responsibilities	
Jeff Wenzel	Program Manager	• Oversight of all evaluation activities to ensure the evaluation is conducted as planned	
Scott Patterson	Advisor	• Ensure implementation of findings	
Vacant	Stakeholder	<ul> <li>Implement and disseminate findings</li> </ul>	
Lori Harris	Stakeholder	<ul> <li>Implement and disseminate findings</li> </ul>	
Carol Braun	Stakeholder	<ul> <li>Implement and disseminate findings</li> </ul>	
Tracy Schloss	Stakeholder	<ul> <li>Implement Geo-spatial and mapping findings</li> </ul>	
Kris Schwartz	Data Collection/Analysis	<ul> <li>Analyze quantitative data</li> <li>Coordinate the analysis of qualitative data</li> </ul>	
Jared Woolfolk	Data Collection/Analysis	<ul><li>Analyze quantitative data</li><li>Coordinate the analysis of qualitative data</li></ul>	
Dawn Parker	Community Liaison	<ul><li>Coordinate meetings for the team</li><li>Disseminate findings</li></ul>	
Cherri Baysinger	Data Steward/Advisor	<ul> <li>Implement and disseminate findings</li> </ul>	
Mindy Laughlin	Advisor	<ul><li>Management liaison</li><li>Implement and disseminate findings</li></ul>	
Jonathan Garoutte	Advisor	<ul><li>Management liaison</li><li>Implement and disseminate findings</li></ul>	

# I. STAKEHOLDER ASSESSMENT

The Bureau of Environmental Epidemiology (BEE) has a long established history of collaboration with local, state, and federal entities. While future EPHT projects will involve Missouri-based agencies, the EPHT team will also continue to vigorously pursue opportunities to work with agencies in other states and at national levels. Our commitment to working closely with our partners is illustrated by the following list of collaborative partners, past and present, including: the Missouri Office of Administration (OA), Agriculture (MDA), Conservation (MDC), Economic Development (DED), Elementary and Secondary Education (DESE), Department of Natural Resources (DNR), Social Services (DSS), Public Safety (DPS), and the Missouri Census Data Center (MCDC).

Within the Department of Health and Senior Services (DHSS), the EPHT team continues to collaborate with the following: Missouri Cancer Registry and Research Center, Chronic Disease, Minority Health, Special Health Care Needs, Office of Epidemiology, Bureau of Vital Statistics (BVS), Bureau of Health Care Analysis & Data Dissemination (BHCADD), Bureau of Vital Records (BVR), and Maternal and Child Health programs.

Further collaborative relationships have been established with the following federal agencies: Environmental Protection Agency (EPA), Agency for Toxic Substances and Disease Registry (ATSDR), United States Geological Survey (USGS), Department of Housing and Urban Development (HUD), Health and Human Services (HHS), U.S. Census Bureau, Department of the Interior (DOI), and Centers for Disease Control & Prevention (CDC).

Stakeholder Assessment and Engagement Plan			
Stakeholder Category	Interest or Perspective	Role in the Evaluation	How and When to Engage
Persons involved in program operations (DHSS staff)	<ul> <li>Contribute to development of the evidence base</li> <li>Assist in determining the programs strengths, weaknesses, opportunities, and threats</li> </ul>	<ul> <li>Defining program context</li> <li>Identifying additional data sources</li> <li>Collecting data</li> <li>Interpreting findings</li> <li>Disseminating and implementing findings</li> </ul>	<ul> <li>Meetings</li> <li>Direct roles in conducting the evaluation</li> </ul>
Persons served or affected by the program (Community Groups and End Users/General Public)	• To provide data and information in a timely, user-friendly, and efficient format	<ul> <li>Providing community context</li> <li>Disseminating findings to community audiences</li> </ul>	<ul><li>Online web- form survey</li><li>Inform of findings</li></ul>
Intended users of evaluation findings (Data Stewards, State Agencies, State Legislature, VTAG Members, LPHA Staff, Public Health Professionals, and Federal Agencies)	<ul> <li>Use findings to enhance the program through improved products and services</li> <li>Show program effectiveness</li> <li>Improve community health</li> </ul>	<ul> <li>Interpreting findings</li> <li>Defining information needed from evaluation</li> <li>Developing and implementing findings</li> </ul>	<ul> <li>Meetings</li> <li>Direct role in conducting evaluation</li> </ul>

# II. BACKGROUND AND DESCRIPTION OF THE PROGRAM AND PROGRAM LOGIC MODEL

#### Need

The need to develop, build, and maintain an environmental public health tracking network that integrates health information with environmental hazards and risk data has been acknowledged for many decades. With the successful development and implementation of the EPHT network, the foundational structure that was needed has been met.

In Missouri, a number of high priority lessons learned have emerged in the development process. Technological advances have far outstripped the ability of individuals and organizations to develop, structure, organize, and analyze everincreasing complex streams of data. Many of the existing environmental databases have been customized for the sole benefit of the data steward with no thought given to interactions with, and linkages to complementary databases. In addition, a culture of expected immediate gratification or response has developed and spread into the highest levels of public, private, and governmental organizations. Much of the environmental data that exist today has not been structured for real-time or immediate response use. This culture of immediate response is further complicated by the demand for the technological ability to take data gathering efforts down to the individual address at street level.

#### Context

The ability to integrate disparate data sources, coupled with the demand for instant gratification or response, has rapidly moved beyond many of Missouri's governing policies, procedures, analytical abilities, thought processes, and statute mandated laws. This creates a high level of frustration and a certain amount of distrust among the public, policy makers, and legislatures. Due to the frustration and distrust, many of these entities believe that the data stewards are attempting to hide or misdirect those asking for data.

Missouri's EPHT network has begun to address these needs for accurate, timely, and detailed data that can be used to produce meaningful information. EPHT is bringing uniformity and consistency to many of the existing environmental data sources. In addition, any new databases created by EPHT grantees are being developed with components which allow linkages, advanced analysis, and correlations to be developed. This allows relationships between hazards, exposures, and health effects to be discovered and studied.

# **Target Population**

The target population of the program consists of:

- DHSS Staff
- Local Public Health Agencies (LPHA) Staff
- Missouri State Government Agencies
- Federal Government Agencies
- Data Stewards
- Missouri State Legislature
- Virtual Technical Advisory Group (VTAG) Members
- Public Health Professionals
- Community Groups
- Non-Governmental Organizations
- End Users/General Public

# **Objectives**

Program objectives to be used during the first year of the project period include:

- Operate, maintain, and enhance the Missouri EPHT network for the collection, access, analysis, and dissemination of environmental public health data, knowledge and information
  - Maintain the current functionality and further develop both the Missouri and national EPHT network.
  - Provide information relevant to environmental and public health issues within a community.
  - Identify, develop, and distribute tools for data utilization and practices that integrate information from a variety of sources.
  - House and maintain data in a way that can be added to the National EPHT network.
  - o Provide secure access to data for approved EPHT network users
  - Continue to provide, maintain, and enhance mechanisms for secure data transport.
  - Continue participation in the DHSS data standardization initiative.
- Promote the use of Missouri's EPHT network through marketing and outreach
  - Provide information relevant to environmental and public health issues within a community.
  - Develop and distribute relevant guidance and messaging about environmental public health issues and communicate information to guide policy, practice, and other actions that improve the nation's health.
  - Enhance, develop, and cultivate the public health workforce by developing training and guidance for communicating about environmental health.
  - o Enhance Missouri's workforce and infrastructure.

- Facilitate the awareness and use of the EPHT network by implementing social media and marketing outreach opportunities.
- Facilitate the awareness and use of the EPHT network by traditional sources.
- Facilitate the awareness and use of the EPHT network by accredited schools of Public Health as well as colleges and universities with complementary areas of study.
- Use the EPHT network to guide policy and other actions to improve the health, safety and well-being of Missouri citizens
  - Provide assistance to other state and local programs in developing and implementing environmental health interventions.
  - Strengthen state and local environmental health programs by using Tracking data to drive public health actions.
  - Provide expertise to federal, state, and local health agencies and environmental health partners.
  - Support, plan, and develop environmental health programs within state and local jurisdictions.
  - Identify, facilitate, and communicate emerging issues and the risks from environmental exposures to DHSS, allied agencies, and LPHAs.
  - Expand and continue to develop the use of EPHT network opportunities to guide policy, practice, and other actions among a VTAG.
- Foster collaboration among Missouri's EPHT partners
  - Showcase promising practices and narratives from awardees demonstrating EPHT in action that may be utilized by other jurisdictions with similar concerns and advance the science of Tracking.
  - Collaborate with national organizations on environmental health issues.
  - o Identify and recruit partners for inclusion in EPHT network activities.
  - Collaborate with DHSS, allied agencies, Public Interest groups, and fellow EPHT grantee program advisory group(s) to identify environmental public health concerns.
  - Identify and improve processes for working with and between partners.

# **Stage of Program Development**

The Missouri EPHT program is currently in the mature phase. However, a number of high priority lessons learned have emerged in the development process. Technological advances have far outstripped the ability of individuals and organizations to develop, structure, organize, and analyze ever-increasing complex streams of data. Much of the environmental data that exist today has not been structured for real-time or immediate response use. This culture of immediate response is further complicated by the demand for the technological ability to take data gathering efforts down to the individual address at street level. Missouri's EPHT network has begun to address these needs for accurate, timely, and detailed data that can be used to produce meaningful information.

# **Resources/Inputs**

- Staff
  - o Time
- Funding
  - Materials & Supplies
  - o Equipment
  - o Technology
- Partners:
  - o VTAG Members
  - o DHSS Bureau & Programs
  - Missouri Government Agencies
  - Federal Government Agencies
  - Local Government Agencies
  - Colleges & Universities
  - o Non-Governmental Agencies
  - o Advocacy Groups
- Data

# Activities

- Operate, maintain, and enhance the Missouri EPHT Network for the collection, access, analysis, and dissemination of environmental public health data, knowledge, and information.
- Promote the use of Missouri's EPHT Network through marketing and outreach.
- Use the EPHT Network to guide policy and other actions to improve the health, safety, and well-being of Missouri citizens.
- Foster collaboration among Missouri's EPHT partners.

# Outputs

Year 1 (August 1, 2014 – July 31, 2015):

- Participate in all EPHT conference calls beginning in August 2014.
- Participate in all DHSS data standardization initiative project meetings beginning in **August 2014**.
- Make recommendations, discuss lessons learned, and evaluate new environmental public health data to be included on the state and national EPHT Networks on an on-going basis beginning **August 2014**.
- Conduct management update briefings on a monthly basis beginning August 2014.
- Perform continual quality control and assurance processes on all datasets included on the Missouri EPHT Network portal beginning **August 2014**.
- Provide technical assistance and dissemination of health data and information to stakeholders on an ongoing basis starting **August 2014**.

- Review and evaluate function and operation of all interactive mapping applications available on the EPHT Network portal on a quarterly basis beginning **August 2014**.
- Participate in workgroups and teams established by partners to assist in the collection, handling, and analysis of data on a continual basis beginning **August 2014**.
- Continue active participation in EPHT national workgroups beginning August 2014.
- Participate in new national workgroups, sub-groups, teams, pilots, and other groups as they are identified beginning **August 2014**.
- Attend all required EPHT conferences, workshops, and meetings beginning in **August 2014**.
- Solicit and incorporate partner feedback in all Missouri EPHT program evaluation activities beginning **August 2014**.
- Make recommendations, discuss lessons learned, and evaluate new environmental public health data to be included on the state and national EPHT Networks on an on-going basis beginning **August 2014**.
- Metadata templates will be reviewed and updated on an annual basis beginning **September 2014**.
- Begin quality assurance and control procedures on relational database/data cube query tools to ensure data quality and consistency across program jurisdictions in **September 2014**.
- Conduct in-depth analysis and ad-hoc report testing on all datasets included on the Missouri EPHT Network portal on a semi-annual basis beginning **October 2014**.
- Design and implement mobile device compatible mapping applications for deployment on the Missouri EPHT Network portal by **December 2014**.
- Convert, test, and deploy mobile device compatible presentations of city & county level profile reports and mapping applications for core content areas by **December 2014**.
- Identify additional data content area to be incorporated on the web-portal by **December 2014**.
- Identify and add any appropriate Tracking Network security roles to the DHSS directory by **January 2015**.
- Review all internal security policies and procedures that support role-based access of internal, external, and public users to the Missouri EPHT Network by **March 2015**.
- Review security assessment criteria, including Public Health Information Network (PHIN) Preparedness Cross Functional components certification self-assessment and NIST special publication (SP) 800-26 assessment by March 2015.
- Review DHSS policies, standards, and practices relating to social media and marketing and the incorporation of new social technologies and products on a quarterly basis beginning **March 2015**.

- Coordinate with OA-ITSD to select the platform of Missouri's VTAG by March 2015.
- Compile a comprehensive health and environmental observance listing by **April 2015**.
- Identify data sources for the additional data content area by April 2015.
- Provide updates to LPHA staff to highlight available products and abilities of the Missouri and National EPHT Networks via the Friday Facts newsletter beginning May 2015.
- Disseminate Missouri and national EPHT Network educational and outreach products at conferences, workshops, and other outreach events beginning **May 2015**.
- Negotiate file transfer protocols and appropriate data sharing agreements (DSAs) for additional data sources by **June 2015**.
- Update technical information about the state Network on the Missouri EPHT portal for review and comment by technical advisors by **June 2015**.
- Participate in Missouri DHSS initiative to streamline and standardize the data request process across all divisions by **July 2015**.
- Review existing Missouri web resources and incorporate into the EPHT Network portal by **July 2015**.
- Completion of metadata templates for additional measures by **July 2015**.
- Create an annual executive summary of EPHT activities and make it available on the Missouri EPHT portal starting by **July 2015**.

Year 2 (August 1, 2015 – July 31, 2016):

- Solicit input from EPHT Network users on new areas of interest and/or subject matter for inclusion on the Missouri portal beginning August 2015.
- Incorporate the comprehensive health and environmental observance listing into the Missouri Outreach Plan by **September 2015**.
- Develop and implement campaigns that highlight partners for use on social media, to facilitate cooperation across programs beginning **October 2015**.
- Provide Missouri and national EPHT Network educational and outreach products for dissemination at partner sponsored/attended events beginning November 2015.
- Convert, test, and deploy mobile device compatible presentations of additional data content area by **December 2015**.
- Recruit at least five new technical advisors to the group by January 2016.
- Implement Missouri's EPHT Network/VTAG community solution by January 2016.
- Investigate opportunities to launch an EPHT focused campaign featuring radio, television, newspaper, and local/regional magazine advertisements by **February 2016**.
- Collect and evaluate partner input annually, beginning by March 2016.
- Meet and collaborate with sister programs and partners to maximize use and integration of the VTAG cyber resource into the Missouri EPHT Network portal on a quarterly basis beginning **March 2016**.

- Solicit user feedback of the Missouri EPHT Network portals on the usability and presentation of the Missouri EPHT Network by **April 2016**.
- Review the comprehensive health and environmental observance listing and correlated social messages on an annual basis starting **April 2016**.
- Compile a resource listing of potential college and university contacts by May 2016.
- Incorporate existing Missouri DHSS assets and resources into the VTAG community solution by **July 2016**.
- Solicit feedback from existing technical advisors on the status of the Missouri state EPHT Network by **July 2016**.
- Cooperate and coordinate with DHSS OPI to inform state and local elected officials of the availably and content of the city and county specific profile reports available through Missouri EPHT by **July 2016**.
- Complete annual short and intermediate-term evaluations of the state EPHT Network beginning **July 2016**.
- Actively monitor and identify public health investigations and interventions that are based on information obtained from the Missouri EPHT Network on an on-going basis beginning **July 2016**.
- Explore data exchanges with two state partners and/or allied agencies by **July 2016**.

Year 3 (August 1, 2016 – July 31, 2017):

- Partner with Missouri's Coordinating Board for Higher Education (CBHE) and Department of Elementary and Secondary Education (DESE) to identify institutions and areas of study most likely to benefit from use of the EPHT Network by **September 2016**.
- Develop and implement a collegiate level outreach campaign targeting students enrolled in health and/or environmental areas of study by **November 2016**.
- Disseminate Missouri and national EPHT Network educational and outreach products at collegiate level campus outreach events beginning **January 2017**.
- Develop and implement an outreach campaign targeting existing and potential VTAG members to introduce the new VTAG community solution by **March 2017**.
- Explore internship opportunities to Missouri collegiate level students majoring in health and/or environmental areas of study beginning **April 2017**.
- Investigate, evaluate, and obtain data steward agreement to include one new data content area into the Missouri EPHT Network portal by **May 2017**.
- Enhance the Missouri EPHT portal by providing a seamless and transparent transition between the program website, public data portal, and secure data portal by **June 2017**.
- Extend the web-portal to include all EPHT Network approved components by **July 2017** or other mutually agreed upon date between the CDC and the Missouri DHSS/EPHT team.

• Provide training on EPHT functionalities and products within the Missouri Public Health Information Management System (MOPHIMS) for EPHT Networks users employed by LPHAs by **July 2017**.

Other:

• Deploy peer reviewed tools and methodologies to facilitate the display and interpretation of data as they become available and/or when recommended by the CDC/Standards and Network Development team; or at a date mutually agreed upon between the CDC/EPHT Branch and the Missouri DHSS/EPHT.

#### Outcomes



Missouri Environmental Public Health Tracking (EPHT) Logic Model

Missouri EPHT logic model displays the outcomes that are expected to result from recipient efforts in the short-, mid-, and long-term as noted in the model. Missouri's three year EPHT Program expected outcomes include:

- Provide, maintain, and enhance the PHIN National Health Information Network (NHIN) compliant secure network portal for Missouri with continuous additions of appropriate data sets throughout the life of the EPHT network.
- Increase awareness of the existence and potential uses of Missouri's EPHT network.

- Increase the amount of information generated from the EPHT network and promote its use in the practice of evidence-based decision making by policy makers to benefit community public health.
- Increase collaboration among Missouri's EPHT partners to aid in the assessment of epidemiological and environmental conditions and assist in reducing the burden of disease and promoting effective interventions and public health practices.

Outcomes for the project include:

- Standardized national environmental surveillance data.
- Robust surveillance system with tools, guides, and best practices to assess health effects related to environmental exposures and develop interventions/actions.
- Inventory of standardized tools, resources, and messages.
- Strong group of environmental health partners.
- Evidence-based environmental health and public health interventions in grantee jurisdictions.

# **III. FOCUS OF THE EVALUATION**

#### **Stakeholder Needs**

The core users of the evaluation findings are identified as data stewards, state agencies, policy makers, VTAG members, LPHA staff, federal agencies, and public health professionals. The evaluation findings will be used to demonstrate the current overall effectiveness of the program and recommend enhancements which will assist in improving the health of our communities.

Missouri EPHT believes that evaluation and performance measurement will contribute to development of the evidence base, where practice-based program strategies will be employed that may lack a strong evidence base of effectiveness. Consistent, on-going program evaluations will assist in determining where the program is stronger and/or weaker. EPHT's evaluation efforts should align with gaps in the program's evidence base.

# **Evaluation Questions**

Primarily two types of evaluations will be conducted, Process and Outcome. Process evaluations will determine if each part of the Missouri EPHT program has been implemented as planned; while outcome evaluations will determine if each part of the program actually lead to a measurable change in knowledge, attitude, behavior, and/or practice.

- What are essential collaborations?
- What are the barriers and challenges to Missouri EPHT's success?
- How have the identified barriers and challenges been addressed by the program?
- How has Missouri EPHT made an impact to drive public health actions and improve public health?
- How have findings been used to evolve the program's activities?
- What communication activities are most successfully used to educate audiences on the value of Missouri EPHT and how it has been used to impact public health?

# **Evaluation Design**

The evaluation team has decided to use multiple data sources due to the continuous growth of the program and the primarily anonymous audience inherent with web-delivered products. No control or comparison group seems appropriate. Due to incomplete historical data, the decision was made to assess the data against benchmarks and timelines the program has set in the Missouri EPHT Logic Model and Strategic Framework; Missouri EPHT Risk Communication & Management Plan; and the Missouri EPHT Outreach & Training Plan. Further, it was decided

that the data collected for this evaluation would serve as a baseline for future evaluations.

#### **Resource Considerations**

Resources available for evaluation are limited. Manpower consists of two fulltime staff member who are only able to devote a few hours a week to the evaluation. The other evaluation team members are able to devote only a limited amount of time to the evaluation. However, several of the evaluation team members work together and most stakeholder groups meet regularly. Thus, some evaluation work can be done as part of existing routines. Program, training, and product utilization records are available as existing sources.

The Missouri EPHT Network currently collects data on the following core health conditions: asthma, birth defects, blood lead levels, cancer, carbon monoxide, myocardial infarction, reproductive outcomes, and vital records. The following core environmental conditions are also collected: agriculture, air quality, and water quality.

Since the program's inception, the Missouri EPHT portal has provided access to additional data and information on potentially related conditions. Currently Missouri includes information about radon, hypothermia, hyperthermia, adult blood lead levels, occupational health, agriculture, and community & infrastructure, hazardous substances, mercury exposure, and safe fish consumption. In addition, the Missouri team is committed to including indicators on climate change and is currently investigating additional content areas to complement existing data offerings. Access to this information is provided as an ongoing collaboration across partner programs and agencies within state and federal government.

#### **Evaluation Standards**

The evaluation team agreed that the evaluation data will be useful, and should be feasible to collect. All identifying data will be kept confidential as required per Missouri statutes. Any information released will be aggregated and de-identified. While the group agreed that there may be some issues regarding record-keeping, the accuracy of the strategy was judged to be acceptable.

# IV. GATHERING CREDIBLE EVIDENCE: DATA COLLECTION

# Indicators

Due to incomplete historical data, the evaluation team had to determine benchmarks and timelines that seem reasonable given the current information available.

Indicators and Program Benchmark for Evaluation Questions		
Evaluation Question	Process and Outcome Indicators	Program Benchmark
What are essential collaborations?	Data and information sharing with data stewards, partners, stakeholders, policy makers, and end users	<ul> <li>Semi-annual NCDM portal updates</li> <li>Monthly portal review of relevant environmental public health topics</li> <li>Monthly strategic planning sessions</li> </ul>
What are the barriers and challenges to Missouri EPHT's success?	<ul> <li>Escalating information costs and continued CDC funding</li> <li>Public demand for granular and real-time data</li> <li>Staff retention and program capacity</li> </ul>	<ul> <li>LPHA and data partners EPHT portal usage</li> <li>Continued CDC funding</li> <li>DHSS continued support</li> </ul>
How have the identified barriers and challenges been addressed by the program?	Through continued collaboration	<ul> <li>Continued successful operation of the Missouri EPHT program</li> </ul>
How has Missouri EPHT made an impact to drive public health actions and improve public health?	<ul> <li>Input for LPHA accreditation</li> <li>EPHT leadership in improving data quality and accessibility</li> </ul>	<ul> <li>Number of LPHAs receiving accreditation</li> <li>EPHT portal, MOHSAIC, and data warehouse improvements</li> </ul>
How have findings been used to evolve the program's activities?	<ul> <li>New division wide data surveillance system</li> <li>Development of new NCDMs and data products</li> </ul>	<ul> <li>Completion and implementation of division wide data surveillance system</li> <li>Expansion of EPHT portal data and content</li> </ul>
What communication activities are most successfully used to educate audiences on the value of Missouri EPHT and how it has been used to impact public health?	<ul> <li>Outreach activities including publications, community interactions, stakeholder meetings, collaboration with partners, and EPHT portal/website</li> </ul>	Continual effectiveness review and planning to increases EPHT portal usage, number of collaborative projects, number of publications printed and distributed

# **Data Collection**

The evaluation will utilize several methods of data collection as identified in the data collection plan. Potentially available data sources for both performance and evaluation data include, but are not limited to:

Data Collection Plan			
Data Sources	Collection		
Data Sources	Who	When	How
Performance measures as detailed in the Missouri EPHT Logic Model & Strategic Framework	EPHT team	Quarterly/Semi- Annually	MOHSAIC, data warehouse, and EPHT portal
Google Analytics and web metric monitoring/tracking	Lead research analyst or designee	Monthly	Utilizing Google Analytics Application
DHSS data surveillance systems	DHSS data stewards	Varies per specific system	Varies per specific system
Partner data systems	Various state and federal agencies	Varies per specific system	Varies per specific system
Stakeholders engagement and feedback	VTAG	Monthly	Electronic and in-person communication
Social Media Metrics	Office of Public Information media contact	Monthly	Facebook Insights, Twitter Metrics, YouTube Statistics, and electronic communication
Feedback Surveys	EPHT portal users	Varies by user	EPHT Portal

# **Plan Timeline**

The team will present evaluation findings at the monthly planning and evaluation sessions that include members of the VTAG for review and discussion. Stakeholders will be encouraged to submit recommendations for incorporating the evaluation findings into the program's logic model and strategic framework.

Illustrative Timeline for Evaluation Activities				
Evaluation Activities			g of Activities	
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
Evaluation planning	✓			
Data collection		✓		
Analysis/interpretation			✓	
Report/dissemination				✓

# V. JUSTIFYING CONCLUSIONS: ANALYSIS AND INTERPRETATION

#### Analysis

Both quantitative and qualitative methods will be used to analyze the data. Simple counts of frequency will be used for quantitative analysis. Qualitative methods such as content analysis will be used to review program, training, product utilization records for themes and patterns.

Analysis Plan		
Data Analysis Technique	Responsible Person	
Quantitative – frequency/counts	Kris Schwartz / Jared Woolfolk	
Qualitative – content analysis	Kris Schwartz / Jared Woolfolk	

#### Interpretation

Stakeholders including data stewards, state agencies, policy makers, VTAG members, LPHA staff, federal agencies, and public health professionals will be included in a monthly planning and evaluation session to interpret the findings. The data from the evaluation will be compared to the established program benchmarks and timelines. Stakeholders and those involved in the program operations will be given an opportunity to justify the findings and make recommendations accordingly.

# VI. ENSURING USE AND SHARING LESSONS LEARNED: REPORT & DISSEMINATION

#### Dissemination

Evaluation findings will be disseminated via various channels to all stakeholders. A presentation will be scheduled for a monthly program planning and evaluation session to include both internal and external partners. Annual reports will be developed and provided to the grantor and posted on the Missouri EPHT Network portal.

Dissemination Plan		
Dissemination Medium	Responsible Person	
Presentation at monthly planning and evaluation sessions	Scott Patterson	
Semi-annual/annual grant reports	Program Manager (Vacant)	

#### Use

The program manager and staff will use the findings to refine program strategies, products, and services. The findings will help guide the program to focus on areas that are of the most interest and beneficial to the end users. The Missouri EPHT Network helps to protect communities by providing information to federal, state, and local agencies. These agencies, in turn, use this information to plan, apply, and evaluate public health actions to prevent and control environmentally related diseases. The implementation of the plan will be monitored by Mindy Laughlin as the management liaison and Jonathan Garoutte as the Principal Investigator.