



Agency Priority Goal Action Plan

Veteran Suicide Prevention

Goal Leaders:

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Overview

Goal Statement

- The Veterans Health Administration (VHA) will proactively identify and provide interventions for at-risk Veterans, both those using VHA care and those using other care systems, to prevent suicide and overdose death. VHA will increase the use of interventions for Veterans at-risk for suicide through the use of predictive modeling and enhanced engagement strategies.
 - By **September 30, 2019**, the percent of **Veterans targeted through predictive modeling algorithms** within the VHA system that receive core recommended interventions **will increase to 90%** from the baseline of **57%**.
 - By **September 30, 2019**, **VA** has partnered with Health and Human Services (**HHS**)/Substance Abuse and Mental Health Services Administration (**SAMHSA**) and **17 cities in a “Mayor’s Challenge” to develop community plans** to end Veteran suicide outside the VHA system.

Overview

Challenge

- While interventions to reduce the likelihood of suicide and overdose have been developed, they do no good unless they reach the people who need them at the right time.

Opportunity

- VA is using advanced analytics combined with clinical interventions to identify people most likely in need of preventive intervention and connect them with services.
 - Within VA, we mine electronic medical record data to identify patients at greatest risk of overdose or suicide events or death. Computer systems are used to provide lists of patients estimated to be at high risk paired with key information about the patient's clinical case and suggestions for interventions to address risks. Clinicians and care coordinators use these computer systems to target clinical interventions and outreach to those with high estimated risk.
 - To help Veterans not enrolled in VA care, we are examining data to identify the Veteran populations at greatest risk and the organizations with which they engage. Partnering with Health and Human Services/SAMHSA and 17 cities through the Mayor's Challenge, VA is working collaboratively based on data to develop community action plans to end Veteran suicide.

Goal Structure & Strategies (1 of 4)

Goal Structure for Targeting Patients Receiving VA Health Care:

- Within VA, efforts to target interventions to high risk patients focus on use of two predictive models:
 1. Recovery Engagement and Coordination for Health – Veterans Enhanced Treatment (REACH VET), which identifies patients at statistical risk of death by suicide in the next month; and
 2. The Stratification Tool for Opioid Risk Mitigation (STORM), which identifies patients at statistical risk of overdose or suicide-related health care events or death in the next year.
- Patients identified as within the top risk tier at their facility based on the REACH VET model are expected to receive a care review and outreach intervention from a personally assigned care provider.
- Patients receiving opioid prescriptions who are identified as very high risk based on the STORM model are expected to receive guideline recommended risk mitigation interventions, including written informed consent, Prescription Drug Monitoring Program checks, and urine drug screening.

Goal Structure & Strategies (2 of 4)

Strategies for Targeting Patients Receiving VA Health Care:

- Improve clinical implementation of core recommended interventions for patients predicted to be at high risk of suicide or overdose.
- Improve predictive models to more reliably and accurately identify Veterans at risk.
- Enhance data systems to enable more complex data mining and analysis and higher performance clinical decision support systems.
- Expand clinical capacity for provision of risk intervention through the Mental Health Hiring Initiative and restructuring of care practices.

Goal Structure & Strategies (3 of 4)

Goal Structure for Targeting Veterans Not Receiving VA Health Care:

- Veteran suicide is an important public health issue impacting Veterans and communities nationally. Of Veterans who die by suicide, 70% are not recently engaged in VHA health care. Ending Veteran suicide will take coordinated, bundled, up stream approaches that fit the unique needs and opportunities within communities and are beyond the scope of VA alone.
- SAMHSA is uniquely positioned and empowered to work directly with states and communities to address suicide. We have partnered with SAMHSA to host a Mayor's Challenge aimed at developing local action plans focused on ending Veteran suicide.

Goal Structure & Strategies (4 of 4)

Strategies for Targeting Veterans Not Receiving VA Health Care:

- As part of the Mayor's Challenge, we will develop community strategic action plans that can be implemented at the local level to end Veteran suicide.
- Integrate Veteran suicide prevention into the values, culture, leadership, and work of a broad range of organizations and programs with a role in supporting suicide prevention activities.
- Establish effective, sustainable, and collaborative suicide prevention programs for Veterans at the national, state/territorial, tribal, and local levels.
- Pursue and sustain public-private partnerships to advance Veterans suicide prevention.
- Develop, implement, and evaluate communication efforts designed to reach Veterans.

• Summary of Progress – FY 18 Q3 (1 of 2)

- VA continues to expand Suicide Prevention programming to benefit all Veterans
- Key indicators are on target:
 - The Mayor's Challenge launched in seven initial cities and is recruiting a second wave of cities
 - Wave 1: Albuquerque, NM; Billings, MT; Helena, MT; Houston, TX; Las Vegas, NV; Los Angeles, CA; Phoenix, AZ; Richmond, VA
 - Wave 2: Atlanta, GA; Austin, TX; Carson City, NV; Charlotte, NC; Clarksville, TN; Columbus, OH; Detroit, MI; Helena, MT; Hillsborough County, FL; Jacksonville, FL; Kansas City, MO; Manchester, NH; Oklahoma City, OK; Suffolk County, NY; Topeka, KS; Tulsa, OK; Warwick, RI
 - VA is hiring additional mental health clinicians to serve Veterans in need
 - Goal is 1000 FTE by end of CY18
 - Net Mental Health staff hired tracked monthly

Summary of Progress – FY 18 Q3 (2 of 2)

- VA continues to expand Suicide Prevention programming to benefit all Veterans
- Key indicators are on target:
 - VA is steadily increasing the clinical use of predictive analytics
 - Predictive analytics are utilized as part of the STORM and REACH-VET clinical programs throughout the VHA.
 - Predictive analytics are being continuously improved
 - VHA has multiple initiatives aimed at developing additional predictors
 - Partnering with DoD to incorporate relevant DoD information as predictors

Key Milestones (1 of 5)

- Improve clinical implementation of core recommended interventions for Veterans predicted to be at high risk of suicide or overdose

Milestone Summary					
Key Milestones	Milestone Due Date	Milestone Status	Change from Last Quarter	Owner	Anticipated Barriers or Other Issues Related to Milestone Completion
Provide guidance and tools on models of care delivery using predictive model-based targeting of at risk patients	March, 2018 and on-going	On Track		OMHSP	None at this time.
Provide technical assistance and clinical facilitation to VA health care systems to improve implementation of practices	March, 2018 and on-going	On Track		OMHSP	Competing priorities for technical assistance staff may limit available resources
Develop and disseminate provider educational materials and programs on recommended interventions	April, 2018 and on-going	On Track		OMHSP	None at this time
Provide implementation monitoring tools to help facilities track and trouble-shoot practice implementation	June, 2018 and on-going	On Track		OMHSP	None at this time.

Key Milestones (2 of 5)

- Improve predictive models to more reliably and accurately identify Veterans at risk

Milestone Summary					
Key Milestones	Milestone Due Date	Milestone Status	Change from Last Quarter	Owner	Anticipated Barriers or Other Issues Related to Milestone Completion
Update REACH VET model on more recent outcome data	June, 2018	Minor Delay, In Progress	Sept 2018	OMHSP	Model variable programming is complete. Model calculations and validation are being performed
Update STORM model on more recent outcome data	June, 2018 and on-going	On Track		OMHSP	STORM model was updated through 2014. Additional updates are planned.
Define and calculate new candidate predictors for REACH VET and STORM models	Sept, 2018	On Track		OMHSP	Complexity of work makes unanticipated delays more likely. No current delays at this time.
Recode REACH VET and STORM decision-support systems to utilize updated models	Dec, 2018	On Track		OMHSP	Limited personnel with necessary skills may impact availability to complete coding

Key Milestones (3 of 5)

- Enhance data systems to enable more complex data mining and analysis and higher performance clinical decision support systems

Milestone Summary					
Key Milestones	Milestone Due Date	Milestone Status	Change from Last Quarter	Owner	Anticipated Barriers or Other Issues Related to Milestone Completion
Develop a cloud-based development and reporting platform for VA decision-support systems	March, 2018	Minor Delay, In progress	Sept, 2018	OIT	Securing authority to operate from OIT Security - lesson learned during project progress. Process is underway with surmountable barriers being actively addressed. Completion date adjusted.
Migrate REACH VET and STORM to the cloud-based platform	June 30, 2018	Minor Delay, In progress	Sept, 2018	OMHSP	Platform ready. Progressing through VA OI&T Authority to Operate process.
Develop a platform for data analysis and decision support processing on the Dept of Energy supercomputer	Sept 2018	On Track		OMHSP	Technically complex multi-agency effort may create additional barriers to overcome
Incorporate newly derived data elements from the supercomputer environment into VA suicide prevention decision support systems	March 2019	On Track		OMHSP	Technically complex multi-agency effort may create additional barriers to overcome

Key Milestones (4 of 5)

- Expand clinical capacity for provision of risk intervention through the MH Hiring Initiative and restructuring of care practices.

Milestone Summary					
Key Milestones	Milestone Due Date	Milestone Status	Change from Last Quarter	Owner	Anticipated Barriers or Other Issues Related to Milestone Completion
Provide strategic planning support for facilities to guide mental health and suicide prevention team staffing plans	Feb, 2018	Complete		OMHSP	None at this time.
Provide technical assistance to facilities with recruitment and retention challenges	Feb, 2018 and on-going	On Track		OMHSP	Competing priorities for technical assistance staff may limit available resources
Monitor progress towards net gain of 1000 MH Full Time Equivalent (FTE), with focus, on SPT, PCMHI, and outpatient clinical FTE	Feb, 2018 and on-going	On Track		OMHSP	As of FY18Q3, 403 net Mental Health FTE have been hired

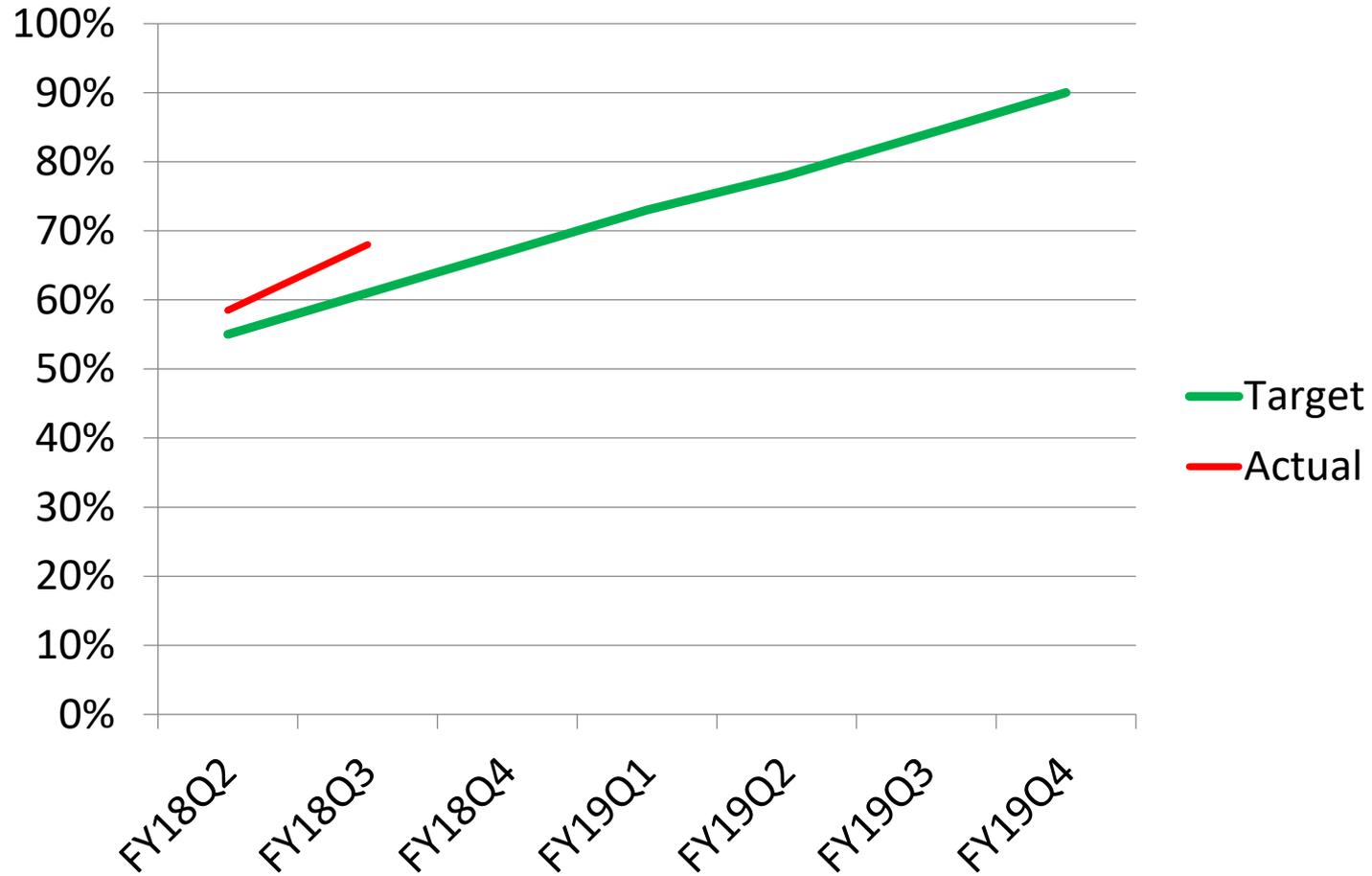
Key Milestones (5 of 5)

- As part of the Mayor's Challenge develop community strategic action plans that can be implemented at the local level to end Veteran suicide for all Veterans.

Milestone Summary					
Key Milestones	Milestone Due Date	Milestone Status	Change from Last Quarter	Owner	Anticipated Barriers or Other Issues Related to Milestone Completion
Select initial 7 cities	January 2018	Complete		OMHSP	None at this time.
Conduct Policy Academy for city teams	March 2018	Complete		OMHSP	None at this time.
Develop community specific plans to end suicide	March 18- June 18	On Track		OMHSP	Tight timeline and competition for resources will make it challenging to deliver on time
Implement plans and submit follow up reports	May 18- August 18	On Track		OMHSP	Tight timeline and competition for resources will make it challenging to deliver on time
Launch second wave of cities in the Challenge	June 18 and on-going	On Track		OMHSP	16-20 cities selected, site visits are ongoing
Complete second wave of cities	February 19	On Track		OMHSP	Delayed start may impact completion

Key Indicators

Percent of Veterans targeted through predictive modeling algorithms within the VHA system that receive core recommended interventions



Key Indicators

of cities partnering as part of the Mayor's Challenge to develop community plans to end Veteran suicide outside the VHA system



Data Accuracy and Reliability (1 of 2)

Data on whether targeted patient populations receive recommended interventions are based on data elements within the VA Corporate Data Warehouse (CDW). Data from CDW is extracted nightly from the VA's Electronic Health Record (EHR), and includes information entered by clinicians regarding the care delivered to Veterans during health care encounters. This includes prescriptions written, procedures conducted and diagnoses treated. VA has on-going data quality validations underway to ensure proper data transmission and accuracy of the data tables.

However, data is limited by accuracy and completeness of clinical coding; if clinicians make errors in documenting care in the medical record (e.g. picking an incorrect diagnostic code or procedure code in their data entry), the database will reflect those errors. Likewise, some interventions are supposed to be documented in the EHR using specific structured notes or documentation templates.

If care is delivered but documented using generic clinical notes, these interventions may not be identified in the data warehouse. VHA employs clinical coding experts that work with clinical staff to improve clinical coding, and provides trainings to encourage use of standardized documentation practices to mitigate these data limitations.

Data Accuracy and Reliability (2 of 2)

High risk patients are identified using predictive models developed on VA data. Information on the validation and limitations of these models have been published:

Kessler, R.C., Hwang, I., Hoffmire, C.A., McCarthy, J.F., Petukhova, M.V., Rosellini, A.J., Sampson, N.A., Schneider, A.L., Bradley, P.A., Katz, I.R., Thompson, C., & Bossarte, R.M. (2017, September). Developing a practical suicide risk prediction model for targeting high-risk patients in the Veterans Health Administration. *International Journal of Methods in Psychiatric Research*, 26(3). doi: 10.1002/mpr.1575.

McCarthy, J.F., Bossarte, R.M., Katz, I.R., Thompson, C., Kemp, J., Hannemann, C.M., Nielson, C., & Schoenbaum, M. (2015, September). Predictive modeling and concentration of the risk of suicide: Implications for preventive interventions in the US Department of Veterans Affairs. *American Journal of Public Health*, 105(9), 1935-1942. doi: 10.2105/ajph.2015.302737.

Oliva, E.M., Bowe, T., Tavakoli, S., Martins, S., Lewis, E.T., Paik, M., Wiechers, I., Henderson, P., Harvey, M., Avoundjian, T., Medhanie, A., & Trafton, J.A. (2017, February). Development and applications of the Veterans Health Administration's Stratification Tool for Opioid Risk Mitigation (STORM) to improve opioid safety and prevent overdose and suicide. *Psychological Services*, 14(1), 34-49. doi: 10.1037/ser0000099.

Leadership

Oversight and Program Management

Dr. David Carroll, Executive Director, Office of Mental Health and Suicide Prevention (OMHSP)

Dr. Keita Franklin, Director for Suicide Prevention, OMHSP

Internal Milestones Lead

Dr. Jodie Trafton, OMHSP

Data Lead

Dr. Terrence Hubert, OMHSP

External Milestones Lead

Greg Hughes, OMHSP

Additional Information

Contributing Programs

Organizations:

- Cities participating in the Mayor's Challenge

Regulations:

- Comprehensive Addiction and Recovery Act of 2016

Policies:

- VHA Directive 1306, Querying State Prescription Drug Monitoring Programs
- VHA Directive 1005, Informed Consent for Long-term Opioid therapy for Pain
- VHA Handbook 1160, Uniform Mental Health Services

Other Federal Activities:

- Health and Human Services/SAMHSA
- Department of Defense
- Department of Energy
- Department of Homeland Security

Additional Information

Stakeholder / Congressional Consultations

- Congressional consultations
- The Veteran
- Veteran Service Organizations
- Community Partners