

Prompts for Department of Veterans Affairs

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Identifying and Helping Veterans At Risk Of Suicide

Status: Selected for Bayes Hacks

Main Contact	Angela Waldrop, Innovation Specialist, San Francisco VA Health Care System
Goal	Suicide among veterans is 50% higher than the national average. Studies have been conducted to understand the clinical and behavioral risk factors behind suicide in the United States. Serious mental health problems are significant contributor to suicidal behavior among veterans, and the public at large. Using openly available data sets (surveys, government reports, etc) can we better understand and predict suicide among veterans as a foundation to provide more targeted and proactive care?
Data/Resources	<p><u>Datasets</u></p> <ul style="list-style-type: none">• VA Suicide Prevention Fact Sheet• VA Suicide Data Report 2012 (old but provides context) <p><u>Relevant links & Resources:</u></p> <ol style="list-style-type: none">1. Behavioral Risk Factor Surveillance System2. National Longitudinal Study of Adolescent to Adult Health (Add Health), 1994-2008 [Public Use] (ICPSR 21600)3. National Survey on Drug Use and Health, 2013 (ICPSR 35509)4a. Treatment Episode Data Set -- Admissions (TEDS-A), 2012 (ICPSR 35037)4b. Treatment Episode Data Set -- Discharges (TEDS-D), 2011 (ICPSR 35074)5. CDC Mortality Multiple Cause-of-Death6. Data available via web query only - (great data but only available via the online query system)

Project ideas	<p><u>Potential Project Ideas</u></p> <ul style="list-style-type: none"> • How can we build tools to proactively screen for individuals who might be at risk of suicide? • Are there apps we could build that leverage open data to help veterans reduce their risk of suicide? • Can we use data visualization to better understand suicide among veterans in our country? • What recommendations can we make for current data systems to improve the quality of data, including data on veterans?
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Write-up:

Suicide among veterans is 50% higher than the national average. Studies have been conducted to understand the clinical and behavioral risk factors behind suicide in the United States. Serious mental health problems are significant contributor to suicidal behavior among veterans, and the public at large.

Use openly available data sets (surveys, government reports, etc) create models to better understand and predict suicide among veterans as a foundation to provide more targeted and proactive care. Other uses for the data include making tools to proactively screen for individuals who might be at risk of suicide, build apps that leverage open data to help veterans reduce their risk of suicide, create visualizations to better understand suicide among veterans, and update current data systems concerning veterans.

Links to Data Downloads:

- [VA Suicide Prevention Fact Sheet](#)
- [VA Suicide Data Report 2012](#)

Relevant Links

- [1. Behavioral Risk Factor Surveillance System](#)
- [2. National Longitudinal Study of Adolescent to Adult Health \(Add Health\), 1994-2008 \[Public Use\] \(ICPSR 21600\)](#)
- [3. National Survey on Drug Use and Health, 2013 \(ICPSR 35509\)](#)
- [4a. Treatment Episode Data Set -- Admissions \(TEDS-A\), 2012 \(ICPSR 35037\)](#)
- [4b. Treatment Episode Data Set -- Discharges \(TEDS-D\), 2011 \(ICPSR 35074\)](#)
- [5. CDC Mortality Multiple Cause-of-Death](#)
- [6. Data available via web query only - \(great data but only available via the online query system\)](#)

Tackling End-State Kidney Disease: Developing Nutrition Tools to Manage Kidney Disease, and educating patients about Treatment Options

Status: Final stage for review

Main Contact

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Goal

The Department of Veterans Affairs and the Department of Health and Human Services are jointly interested in the development of tools that enable renal patients to make smart dietary decisions. Eating the right foods and avoiding foods high in certain salts and minerals may prevent or delay some health problems for patients with from kidney disease. End Stage Renal Disease (ESRD) affects 660,000 Americans – including many Veterans; current estimates project that the number of ESRD patients will quadruple by 2030. Approximately 40 to 70% of patients with ESRD are malnourished. To meet the expanding role of nutrition in management of patients with renal disease more education and nutrition decision tools are needed.

Treatment options for ESRD patients include dialysis, and transplant (from deceased or living donors), all of which are covered by Medicare in the private sector. Although, transplant is considered the standard of care, 98% of incident cases begin dialysis. Patients on dialysis are vulnerable to serious complications due to heightened sensitivity to what is eaten, including conventionally healthy minerals found in many foods; and dialysis causes other health complications which might prevent them to become an transplant candidate.

Developing Kidney Nutrition Tools: Develop novel tools to support patients on dialysis to manage their diets and avoid adverse impacts of intake of amounts of nutrients, minerals, and chemicals which are contra-indicated for their kidney disease, improving their quality of life and decreasing emergency health care costs.

	<p>Educating Patients about Treatment Options: Develop decision-support tools to inform and educate patients with ESRD about treatment options, specifically transplant (deceased and living) to increase the transplant referral rates. There could also be overlap with the Kidney Nutrition tool so that patients are managing chronic kidney disease and ESRD but also planning for next steps in their patient journey.</p> <p>The outcome of addressing both kidney nutrition and treatment options will reduce total ESRD costs and improve patient outcomes.</p> <p><i>Currently under development: Financial rationale and cost-savings analysis. ESRD spending makes up over 7% of Medicare fee-for-service claims. (For context, ESRD spending is nearly the entire total annual budget of the National Institutes of Health, and over <u>4 times</u> the total annual budget of the National Science Foundation.) Of note, switching an appropriate candidate from dialysis to transplant could result in lifetime savings of \$250,000-\$500,000 per individual post-transplant.</i></p>
<p>Data/Resources</p>	<p><u>Datasets</u> USRDS: Data on chronic kidney disease and ESRD http://www.usrds.org/2015/view/Default.aspx</p> <p>Dialysis Facility Compare datasets: https://data.medicare.gov/data/dialysis-facility-compare</p> <p>Additional datasets on ESRD and Dialysis Quality Improvement: https://data.medicare.gov/data?tool=dialysis-facility-compare&tag=&sort=relevance&q=</p> <p>ESRD General CMS Information: http://www.healthdata.gov/dataset/esrd-general-information-data</p> <p>SRTR: Data on transplant centers and organ procurement organizations, performance. SRTR uses data from OPTN to generate reports http://www.srtr.org/</p> <p><u>Relevant links & Resources:</u> http://ckd.vacloud.us/ http://ndb.nal.usda.gov/ https://www.kidney.org/nutrition/Dialysis http://www.kidneyappetite.com http://www.ncc.umn.edu/products/database.html</p>

	<p>https://www.aakp.org/education/brochures/item/aakp-nutrition-counter-a-reference-for-the-kidney-patient.html</p> <p>Examples: Habitica: https://itunes.apple.com/us/app/habitica-stay-motivated-gamified/id994882113?mt=8</p> <p>Healthy Habits – choose a habit to improve; get stars for each time you complete it. https://itunes.apple.com/us/app/healthy-habits/id416687813?mt=8</p> <p>Renal Bingo for sodium, potassium, phosphorus, protein or fluid: https://www.renalrd.com/games.cfm</p> <p>Phosphorus Mission: https://www.youtube.com/watch?v=evuktVIRJvU</p> <p>Apps for info (not games): My Food Coach, Restaurant Nutrition AAKP Nutrition Counter App: https://play.google.com/store/apps/details?id=com.bbtech.aakpnutritionguide&hl=en&rdid=com.bbtech.aakpnutritionguide</p>
<p>Project ideas</p>	<p><u>Potential Project Ideas</u></p> <ul style="list-style-type: none"> · Develop mobile apps to aide patients with end-stage kidney disease to monitor their diet to ensure intake of key nutrients fits their personal dietary needs and constraints · Develop apps to assist patients with end-stage kidney disease to do meal planning to ensure personal dietary needs and constraints are met · Develop a game to educate patients with kidney disease on the impact of their diet on their kidney functioning and why certain nutrients and/or chemicals need to be restricted · Develop an app to allow patients to track the amount of liquid in foods · Develop a personalized treatment decision tool for patients and caregivers · Create an information portal that allows patients to understand local treatment and support resources