



UCSF Delirium Reduction

Presented by Emily, Lekha, and Max

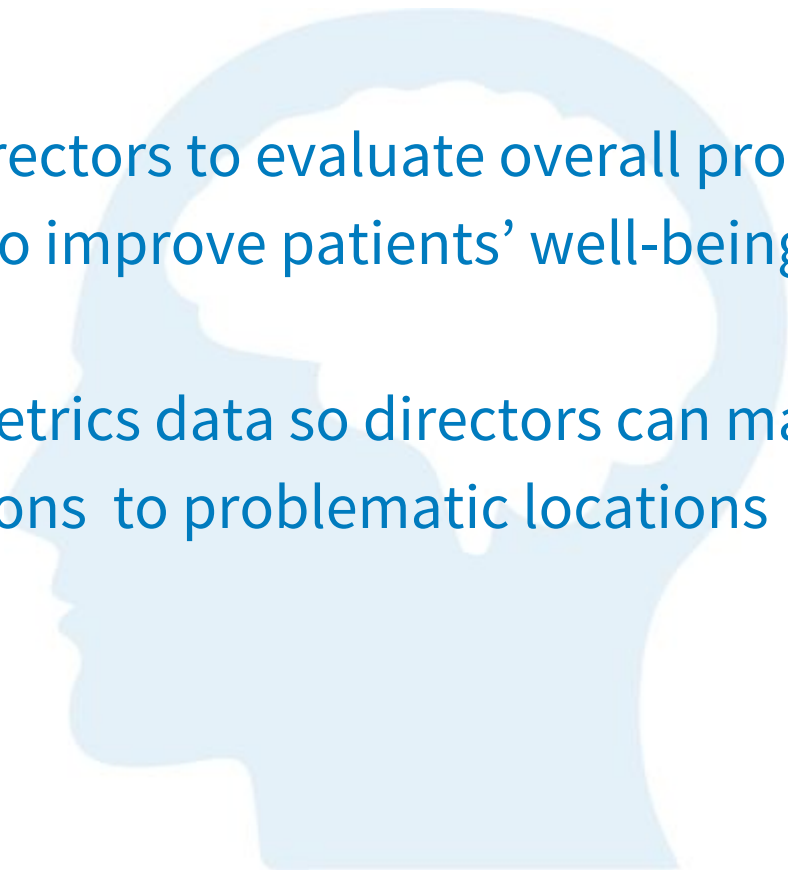
Agenda

- Project Goals
- Design Solutions
- Usability Feedback
- Possible Future Design Update



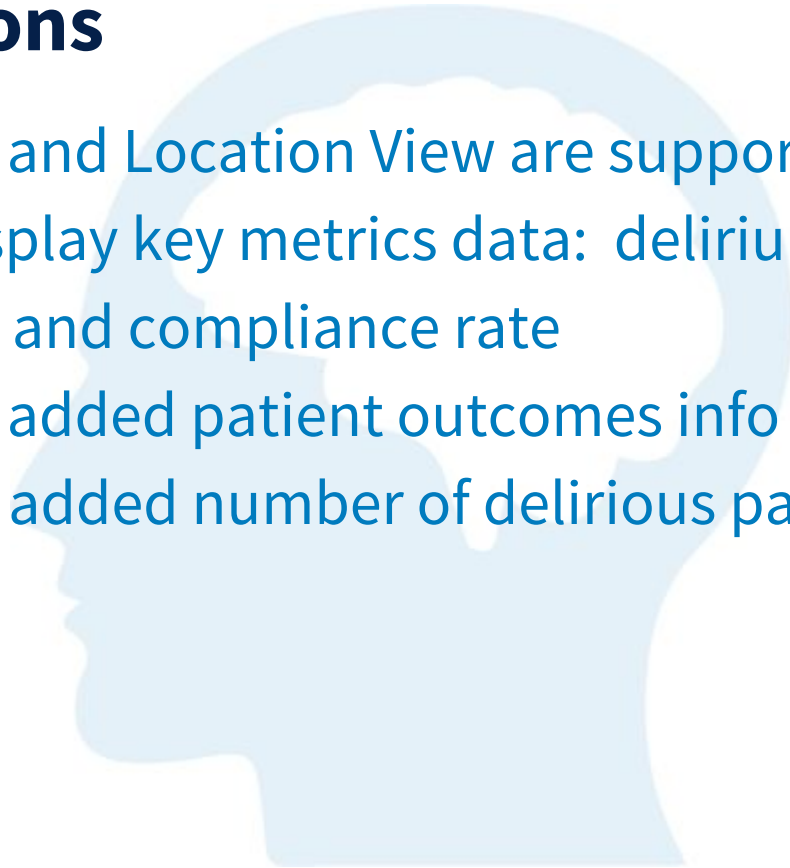
Project Goals

- Allow UCSF directors to evaluate overall program performance to improve patients' well-being
- Provide key metrics data so directors can make informed funding decisions to problematic locations



Design Solutions

- Program View and Location View are supported
- Both views display key metrics data: delirium duration, length of stay, and compliance rate
- Program View added patient outcomes info
- Location View added number of delirious patients per location



Design Solutions: Personas and Scenarios



Persona: Andrea Plat, location director

Scenarios:

1. See her location's current delirium duration
2. Compare her location's key metrics to other units
3. Compare her location's key metrics to her own location's baseline

Design Solutions: Personas and Scenarios



Persona: Jessica Chao, program manager

Scenarios:

1. Decide successful and problematic locations
2. Measure the effectiveness of the overall DRI
3. Decide how to best allocate funds for the initiative

Design Solutions: Personas and Scenarios



Persona: June Chan, UCSF director

Scenarios:

1. Visualize overall program performance overtime
2. Correlate results to show program's overall effectiveness

Usability Feedback



What worked

- Program View provided trend lines showing decrease in delirium duration
- Location View highlights selected location's data

What required improvement

- Emphasized delirium duration and length of stay in graphs
- Established key metrics baseline per location
- Added graph captions

Usability Feedback - Program View Iteration 1

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Program View

Unit View

Authors: Max Lustyan, Lekha Patil, Emily Pedersen

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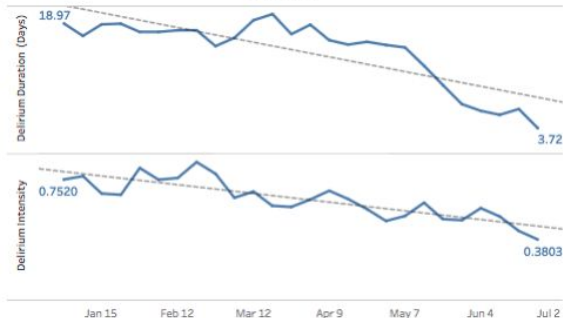
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Program Outcomes

2016-2017 (All Data)



Just 2017



Usability Feedback - Program View Iteration 2

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Program View

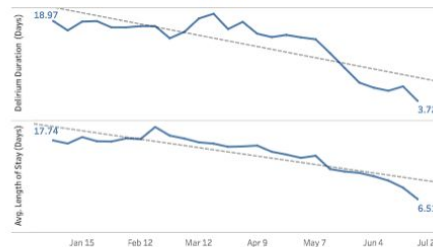
Location View

Program Outcomes

2016-2017 (All Data)



Just 2017



+ o b l e o u

At the start of the program the average delirium duration was 4.55 days, and from the most recent data point the average delirium duration is 3.72 days, indicating a reduction of 0.83 days in average delirium duration. The average length of stay for a patient when the initiative was first implemented was 16.17 days and from the most recent data point the average length of stay is 6.51 days, indicating a reduction of 9.66 days in average length of stay.

Authors: Max Lustyan, Lekha Patil, Emily Pedersen

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Patient Outcomes

Usability Feedback - Program View Iteration 2

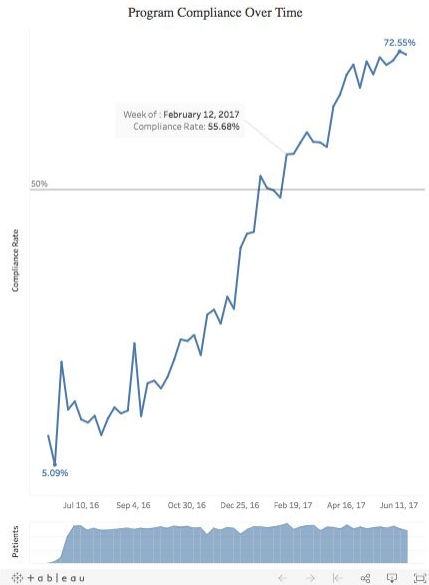
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Program Compliance

The rates of compliance for AWOL and NuDESC are calculated since the start of the program as well as in just 2017. The corresponding number of patients each week is indicated in the area graph below.



The compliance rate shows an upward trend with the lowest rate (5.09% compliant) occurring in the second week of the initiative's implementation and the highest rate (72.55% compliant) occurring in the second to last week of the current data provided. From the start of

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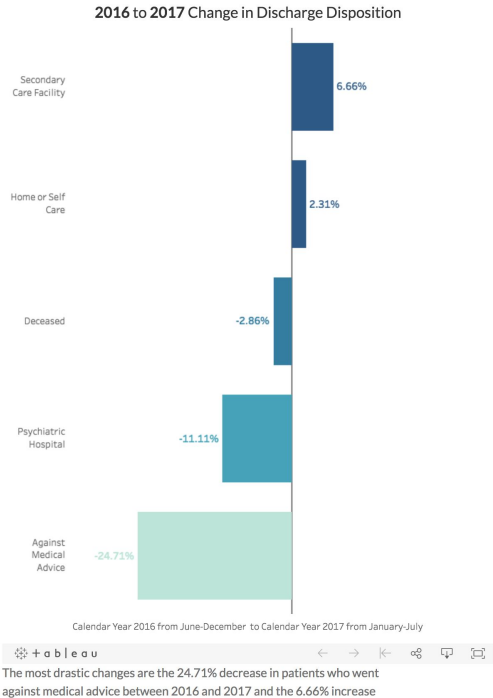
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Patient Outcomes

This graph displays the change in percentage of patients' discharge outcomes between 2016 and 2017.



Usability Feedback - Location View Iteration 1

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Program View

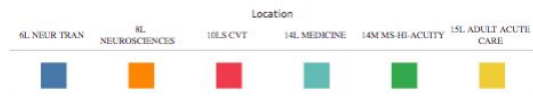
Unit View

Authors: Max Lustyan, Lekha Patil, Emily Pedersen

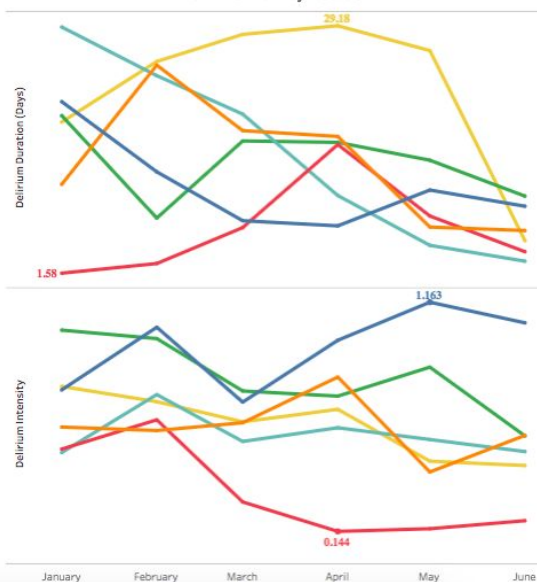
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Delirium Metrics



2017 Delirium by Location



Usability Feedback - Location View Iteration 2

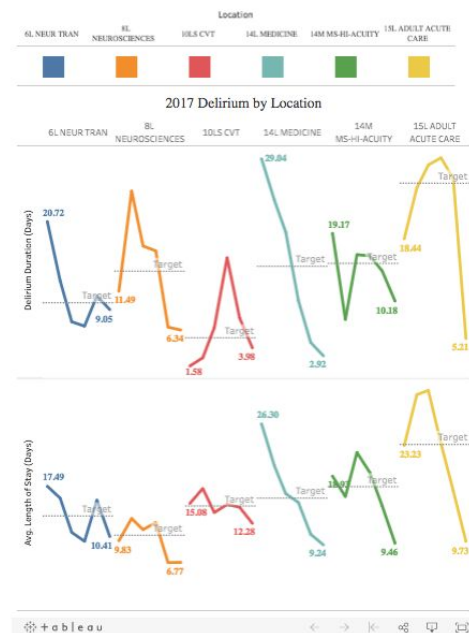
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Delirium Metrics

This graph shows the average delirium duration (the number of days a patient spent delirious) by location and the average length of stay by location for 2017.



Authors: Max Lustyan, Lekha Patil, Emily Pedersen

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All locations except for 10LS CVT (red) showed a decrease in delirium duration. The lowest and highest average of each metric is annotated for convenience.

Possible Future Design Update



- A new graph to show financial impact of the Delirium Reduction Initiative
- This new graph would show correlations between a decrease in delirium days and length of stay per patient and improvement in hospital financial performance



Thank you!

Questions?