Examination of Assaults in the Center for Forensic Services at Western State Hospital

<u>Purpose</u>

The purpose of the examination of WSH assault data is to determine (1) whether there is a statistically significant relationship between both Patient-to-Staff and Patient-to-Patient assaults and other performance indicators and (2) whether trends in the data over time are statistically significant. This investigation is critical for addressing observations made during recent site visits from The Joint Commission (TJC) and Department of Health (DOH) that assaults may be increasing in some areas of the hospital and for developing an action plan to continue to decrease assaults. One observation made during a recent TJC site visit was noted as follows: "Numerous staff reported that since the inception of the Psychiatric Emergency Response Team (PERT), that patient to patient assaults have increased. Review of the data supported this." Therefore, while assault data across the hospital is in the process of being analyzed, this preliminary summary will focus on the pattern of assaults in the Center for Forensic Services (CFS) over time.

Data Orientation

The graphs that follow show the number of Patient-to-Staff Physical Assaults as well as the Patient-to-Patient Physical Assaults for all eight CFS wards on which PERT has been implemented. These data are presented for each month for a three year period starting in March 2012 to February 2015 in order to provide adequate information as to the fluctuations in the data over time. Please note that the data for March 2015 has not yet been included as that data is still being collected and entered.

The y-axis on the graphs indicates the number of assaults. It is important to note that the y-axis is consistent across wards for the Patient-to-Staff Assaults and consistent across wards for the Patient-to-Patient Assaults. However, please note that the y-axis is slightly different for Patient-to-Staff and Patient-to-Patient Assaults. The gray bars in the graphs indicate the number of assaults per month (the number is also listed below each month on the x-axis), and the dark, black line represents the trend in the assaults for that ward over time from March 2012 to February 2015. The thin dotted lines represent the mean and +/-1 standard deviation of the assault data.

Data Orientation (continued)

- Please note that the source for the Patient to Staff and Patient to Patient Physical Assault data is the Administrative Report of Incidents (AROI) and the Security Incident Reports (SIR).

- As stated under the graphs, Patient-to-Staff Physical Assault is defined as an alleged incident of intentional, negative physical contact or assault upon a staff person by a patient, with or without bodily harm. This also includes any patient to staff sexual activity.

- As stated under the graphs, Patient-to-Patient Physical Assault includes patient-to-patient physical abuse as defined by physical contact, with or without bodily harm, that involved the patient's body and that was harmful to or jeopardized the safety and welfare of the patient, including squeezing, pinching, slapping, striking with or without an object, pushing, and the use of excessive force. This also includes patient-to-patient nonconsensual sexual abuse.

It is important to note that while only two of the eight PERT-affiliated CFS wards are discussed here to provide brief examples of the patterns of assault data in CFS, all CFS ward data can be found in this document. When looking at the Patient-to-Staff Physical Assault graphs below (pages) 11-18), you can see in the F1 ward graph that there have been fluctuations in Patient-to-Staff Physical Assaults over time between March 2012 and February 2015 and that the trend line of the F1 ward data increases slightly over time. When looking at the F2 ward graph, you can see that there have been fluctuations in Patient-to-Staff Physical Assaults over time and also that the trend line of the F2 ward data is relatively steady and does not increase or decrease over time from March 2012 to February 2015. Please note that while data analyses will be conducted to examine the presence/absence of statistical significance of the increase in Patientto-Staff Physical Assaults in the F1 ward data over time, one cannot conclude based on these data alone that the increase in assaults from March 2012 to February 2015 is statistically significant.

Overall, it is important to note that only two of the eight PERT-affiliated wards in CFS (25%) show an increase in Patient-to-Staff Physical Assaults since 2012. These wards are F1 and F4. Given that PERT has been implemented on all eight wards, if PERT were causing the increase in assaults, an increase in Patient-to-Staff Physical Assaults would likely be seen in the majority, if not all, of the wards. Also, given that statistical analyses have not yet been conducted to examine the trend in the data before and after PERT implementation, one cannot conclude that PERT may be associated with the increase in assaults in these wards.

Further analyses are needed to determine what factors may be associated with the pattern of Patient-to-Staff Physical Assaults seen on these wards. Specifically, statistical analyses will be conducted on the data to determine whether there are specific performance indicators that are significantly associated with the patterns of Patient-to-Staff Physical Assaults on these wards. In addition, once the appropriate software is acquired, analyses will be conducted investigating whether there are statistically significant trends in the Patient-to-Staff Physical Assault data over time and also comparing trends in the data pre and post PERT implementation.

When looking at the Patient-to-Patient Physical Assault graphs below (pages 20-27), you can see in the F1 ward graph that there have been fluctuations in Patient-to-Patient Physical Assaults over time between March 2012 and February 2015 and that the trend line of the F1 ward data increases over time. When looking at the F2 ward graph, you can see that there have been fluctuations in Patient-to-Patient Physical Assaults over time and that the trend line of the F2 ward data decreases over time from March 2012 to February 2015. Please note that while data analyses will be conducted to examine the presence/absence of statistical significance of the increase in Patient-to-Patient Physical Assaults in the F1 ward data over time and of the decrease in Patient-to-Patient Physical Assaults in the F2 ward data over time, one cannot conclude based on these data alone that the respective increase and decrease in assaults from March 2012 to February or March 2015 are statistically significant.

Overall, it is important to note that only three of the eight PERT-affiliated wards in CFS (37%) show an increase in Patient-to-Patient Physical Assaults since 2012. These wards are F1, F4, and F5. Given that PERT has been implemented on all eight wards, if PERT were causing the increase in assaults, an increase in Patient-to-Patient Physical Assaults would likely be seen in the majority, if not all, of the wards. Also, given that statistical analyses have not yet been conducted to examine the trend in the data before and after PERT implementation, one cannot conclude that PERT may be associated with the increase in assaults in these wards.

Further analyses are needed to determine what factors may be associated with the pattern of Patient-to-Patient Physical Assaults seen on these wards. Specifically, statistical analyses will be conducted on the data to determine whether there are specific performance indicators that are significantly associated with the patterns of Patient-to-Patient Physical Assaults on these wards. In addition, once the appropriate software is acquired, analyses will be conducted investigating whether there are statistically significant trends in the Patient-to-Patient Physical Assault data over time and also comparing trends in the data pre and post PERT implementation.

In addition to the data discussed above and pictured below, research has been and continues to be conducted to examine statistically significant relationships between assaults and performance indicators. One statistically significant relationship that has been identified in only in CFS is that between both Patient-to-Staff and Patient-to-Patient Physical Assaults and percent occupancy. In other words, as percent occupancy increases, the number of assaults increases in CFS. The correlations are as follows: 0.41 (p < 0.05) and 0.35 (p<0.05), respectively. Additional analyses will be conducted to investigate meaningful relationships among the data and to help develop an action plan to decrease assaults.

CFS PATIENT TO STAFF ASSAULT DATA

F1* - CFS Patient-To-Staff Physical Assaults Ward ID: WS48



ADC = Average Daily Census

F2* - CFS Patient-To-Staff Physical Assaults



ADC = Average Daily Census

F3* - CFS Patient-To-Staff Physical Assaults Ward ID: WS51



ADC = Average Daily Census

F4* - CFS Patient-To-Staff Physical Assaults



ADC = Average Daily Census

F5* - CFS Patient-To-Staff Physical Assaults Ward ID: WS61



ADC = Average Daily Census

F6* - CFS Patient-To-Staff Physical Assaults Ward ID: WS50



ADC = Average Daily Census

F7* - CFS Patient-To-Staff Physical Assaults Ward ID: WS62



ADC = Average Daily Census

F8* - CFS Patient-To-Staff Physical Assaults Ward ID: WS16



ADC = Average Daily Census

CFS PATIENT TO PATIENT ASSAULT DATA

F1* - CFS Patient-To-Patient Physical Assaults Ward ID: WS48



ADC = Average Daily Census

F2* - CFS Patient-To-Patient Physical Assaults Ward ID: WS14



ADC = Average Daily Census



ADC = Average Daily Census

F4* - CFS Patient-To-Patient Physical Assaults Ward ID: WS18

10 11 12 10 11 12 10 11 12 Assaults ADC 30.9 30.9 30.9 30.5 30.8 30.5 30.5 30.3 30.4 30.5 30.5 30.7 30.9 30.9 30.9 30.9 30.9 30.8 Assaults — Trend -- Mean — (+)1 Std Dev — (-)1 Std Dev

ADC = Average Daily Census

F5* - CFS Patient-To-Patient Physical Assaults

Ward ID: WS61



ADC = Average Daily Census

F6* - CFS Patient-To-Patient Physical Assaults

Ward ID: WS50



ADC = Average Daily Census

F7* - CFS Patient-To-Patient Physical Assaults Ward ID: WS62



ADC = Average Daily Census

F8* - CFS Patient-To-Patient Physical Assaults Ward ID: WS16



ADC = Average Daily Census