EXPANDED BEHAVIORAL HEALTH CONSULTATION SERVICES AT JHH A proposal

Clinical background: on non-psychiatric wards (NPW) at JHH the presence of patients with behavioral health disorders BHD (*psychiatric conditions, addictions, problematic health behaviors*) has grown substantially in the last few years. These patients are very complicated—with frequent double or triple comorbidities of psychiatric conditions with opiate addiction, smoking, and obesity for example, often with chaotic lives outside the hospital. They typically require ongoing psychiatric care while they are on NPW. Additionally, they are hard to place, contribute to nursing staff turnover, and add to the cost of care through longer lengths of stay, more frequent 30 day readmissions, and more frequent need of sitter support.

Financial impact: Attached are data from JHH 2011-12 obtained in J-CHIP. These looked at effect of BHD disorders on LOS and other variables in detail including by location and micro-service. In these data it is evident that 21K of 71K non-psych discharges (over 2 years) or about 30% had a current active BH diagnosis. Patients with BHD had significantly longer LOS, denied days, and re-admission rates than other patients. (We have requested that these data be rerun because we believe they are conservative regarding the prevalence of patients with BHD and the impact on cost outcomes.)

Existing BH consultation services: the psychiatric consultation team consists of 1 FTE (0.8 clinical, 0.2 administrative) shared between 2 psychiatrists, funded by psychiatry which loses money because they cannot recover the expense through billing. 2 full-time residents are assigned to psychiatric consultation services at any point in time. An internist provides 0.25 FTE consultation services for addictions to Medicine. There is 1 FTE nurse practitioner outside of Cancer Center, a clinical nurse specialist in the Cancer Center center, and 1 FTE liaison nurse. There is 1 FTE addiction counselor dedicated to Medicine. These teams provide about 1500 initial consultations per year (unique admissions) and an estimated 3000 follow-ups. We believe that the current teams only scrape the surface of need and that more often than not patients are not referred to psychiatry because of the limited availability of the consultation team.

Proposed approach: we propose to transform BH consultation services at Johns Hopkins Hospital substantially over the next 3 years to better approximate the size and impact that such services have at other major hospitals. We are familiar with the University of Maryland and Yale New Haven Hospitals which have a similar number of beds as JHH and consultation services the size of what we propose. The transformation we present will be modeled after the highly successful behavioral health intervention team (BIT) at Yale New Haven. BIT deploys teams of social worker/counselors, with psychiatric mid-levels and psychiatrists. The Yale program is overseen by a former JHU faculty member Dr. Ben Lee.

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That program has substantially reduced length of stay, utilization of sitters, and 30 day readmissions (data available upon request). BIT also has greatly improved patient care, and reduced nursing and physician staff burden. Parts of the program have been applied on a small scale at Johns Hopkins Bayview Medical Center with great success clinically. This has been focused on Medicine wards (Med A, Med B, and Carol Ball). The financial impact at Bayview is being assessed although the service introduced was much smaller than necessary due to financial constraints.

Core principle: the core principle behind this proposal, derived from the Yale experience, is that it is critical to detect patients with BHDs soon after admission (day 1 or 2) to NPWs and to deploy an interdisciplinary BH team to initially assess, triage, and intervene effectively. This improves care, reduces staff burden/injury/turnover, reduces LOS/30 day readmissions/sitter use, and improves aftercare engagement.

Estimate of need: Based the attached 2011 – 2012 data (which are to be updated) we project that NPW at JHH see about 25,000 admissions annually and that 30% or about 7,500 have a current significant BH diagnosis requiring intervention during the hospital stay. We estimate that about 1/3 of these will not need direct input from the BH consultation team. The remaining 5,000 will need at least one consult from the team. They will have a LOS on JHH NPWs of 5-6 according to the attached data requiring ongoing psychiatric care. If we first see them no later than day 2 and follow them on average for 3 days, we will have 5,000 initial consults and 10,000 followup consults or a total of 15,000 visits. This is a fivefold increase of clinical burden from the current status.

The eventual ask (Table 1): To address the need we propose to to hire additional staff consisting of health behavior specialists (HBS--licensed clinical social workers or certified professional counselors who are trained using a training program developed in J-CHiP), nurse practitioners or advance practice nurses with psychiatric credentials, and psychiatrists. With a goal to detect and initially assess 5,000 patients beginning with an HBS, at about 500 initial visits/HBS/year, we will ultimately need 10 HBS (this is from the experiences at Yale and Bayview). From our JHB experience we will need about 1 midlevel for each 2 HBS meaning about 5 mid-levels total, as well as one clinically deployed psychiatrist for every 3 to 4 HBS. Given the size of this new program a 0.5 FTE psychiatrist lead administrator will be needed. They will be organized in 3 teams targeted geographically throughout NPWs at JHH developing local relationships with nursing and other clinical staff.

The immediate ask (Table 2):
Phase 1—beginning July 2016, mostly complementing what is there now, stand up a fully functioning team outside of Cancer Center with 4 health behavior specialists, conversion of

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the liaison nurse position to a mid-level, incorporation of all current mid-levels into this team, and 1 new FTE psychiatrist.

Phase 2—beginning January 2017, stand up a second team with 4 more health behavior specialists, 2 more mid-levels, and 1 psychiatrist, also outside the Cancer Center.

Phase 3—In FY18 stand up a third team working primarily with Cancer Center. This will give us enough time to hire the staff needed and to conduct initial evaluation of the program's impact.

Outcomes: we will develop a targeted set of quality indicators for these patients and evaluate impact on length of stay, sitter use, staff morale, staff turnover, and 30 day readmissions.

Table 1: Staffing Over Time

Clinician	Existing FTE	FTE at peak
Psychiatrist lead/administrator	0.2	0.5
Clinically deployed psychiatrist	0.8	3.0
Mid-level	2	5
Liaison nurse	1	0
HBS or addiction counselor	1	10
Residents	2	2

Table 2: Rough Cost Estimate

Clinician	Phase 1	Phase 2	Phase 3
Psychiatrists	$250,000 (1 FTE)	$250,000 (1 FTE)	$250,000 (1 FTE)
Mid-levels	$20,000*	$130,000 (1 FTE)	$130,000 (1 FTE)***
HBS	$225,000 (3 FTE)**	$225,000 (3 FTE)	$225,000 (3 FTE)
TOTAL	$495,000	$605,000	$605,000

*conversion of liaison nurse positon to mid-level
** assumes conversion of addiction counselor position to HBS
*** incorporates exiting Cancer Center NP into BIT team

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