ACCOUNTABILITIES & EFFICIENCIES

MEASURING TEAM CAPACITY: THE RELATIONSHIPS BETWEEN INTAKE RATE, SERVICE DELIVERY AND DISCHARGE

ONTARIO ACT CONFERENCE
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SERVICE CHIEF AND DIVISION HEAD,

ACT/TERTIARY SERVICES

VANCOUVER ISLAND HEALTH AUTHORITY

INTRODUCTION

Clinical Director,

- Seven Oaks Tertiary Care Facility, Victoria, BC

Clinical Director,

- ACT teams, Victoria, BC

Service Chief and Division Head,

- Tertiary Care Services, Vancouver Island Health Authority
- Two Longterm care facilities and 7 ACT Teams

Downtown ACT Team psychiatrist

serving “acute care heavy users and homeless at admission” patients

Seven Oaks ACT Team part/time psychiatrist

serving “long stay” patients leaving Seven Oaks

TALK OUTLINE

Rationale and Value of Accountable Mental Health Services

Logic Model and Service Articulation of ACT

ACT Outcomes….

ACT Capacity :

- **Structural and Clinical Features**
- **Measurements of ACT Capacity**

Some Victoria BC ACT Team Capacity Demonstration

Conclusions

Questions/Comments

LOGIC MODEL UNDERSTANDING OF ACT

Inputs

multiple stakeholders, implementation knowledge and expertise

Who

- Target populations
- Intake rates

How

- Model fidelity/Accreditation

What

- Outcome measurements
- Capacity measurements

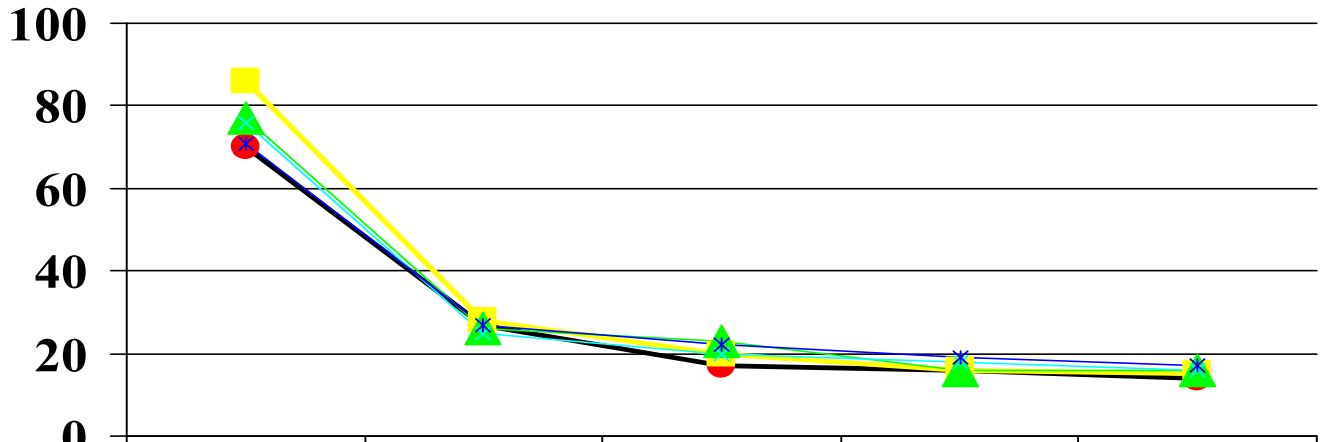
Why

ACT EXPECTED OUTCOMES

Expected and "proven" RCT results across many jurisdictions (Cochrane reviews)

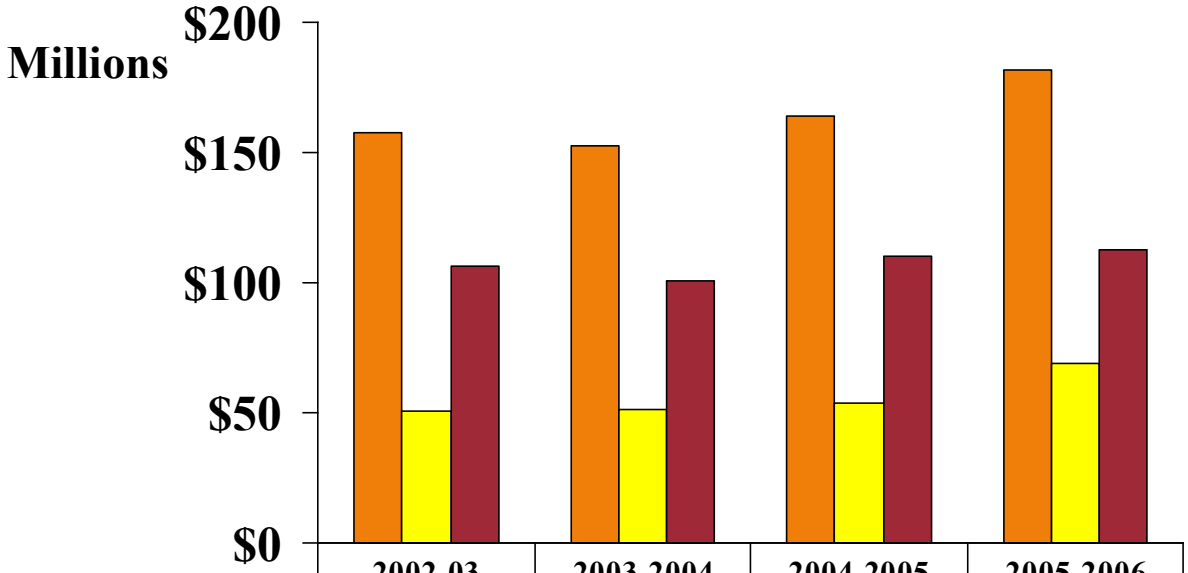
- Much reduced hospital and ER use (both long stays and acute care) recidivism…70% range bedday reduction on average, when targetting high end users of the hospital system
- Much greater housing stability and independence
- ("housing first" rent subsidies approach allows for maximizing the private market housing sector)
- Homelessness to housed
- Platform for recovery
  - psychosocial interventions, especially historical emphasis on vocational IPS approach
  - Family reconnections

ONTARIO: COMPARISON OF AVERAGE HOSPITAL
BED DAY REDUCTION RESULTS



	1 Year Pre-ACT	Year 1	Year 2	Year 3	Year 4
2001-02	70	27	17	16	14
2002-03	86	28	20	16	15
2003-04	77	26	23	16	16
2004-05	76	25	20	18	16
2005-06	71	27	22	19	17

ONTARIO: VALUE OF REDUCED ACT HOSPITAL BED DAY UTILIZATION PROJECTED TO 4048 CLIENTS



	2002-03 (2887 clients)	2003-2004 (3130 clients)	2004-2005 (3414 clients)	2005-2006 (4048 clients)
Pre-ACT	$157,350,000	$152,319,000	$163,982,000	$181,642,000
Post-ACT	$50,716,000	$51,433,000	$53,941,000	$69,075,000
Cost Avoidance	$106,634,000	$100,886,000	$110,041,000	$112,567,000

4048 clients: Pre-ACT averages 71 Bed Days; declines to 27 Avg. Bed Days after 1 year in ACT

N.B. - #'s rounded off to the nearest thousand

Using Average Bed Cost of $632†

† Source for Average Bed Day Cost:

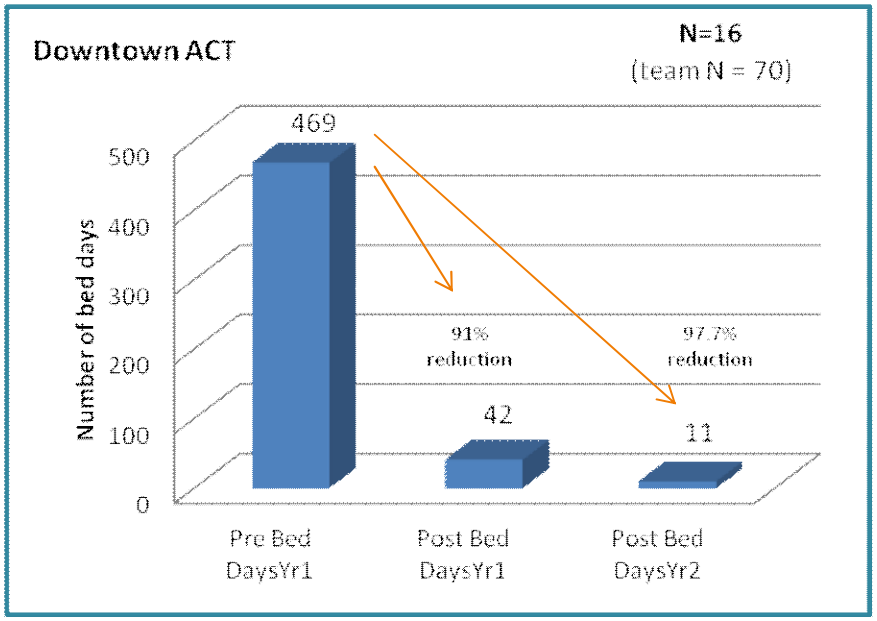
Forchuk, Cheryl, RN, PhD., "Therapeutic Relationships: From Hospital to Community" (June 2002)

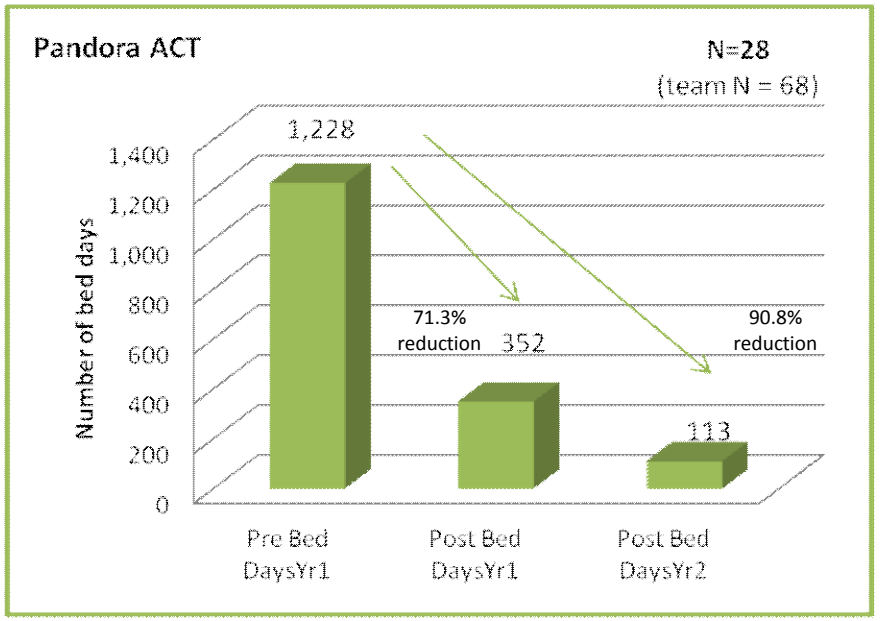
TEAM

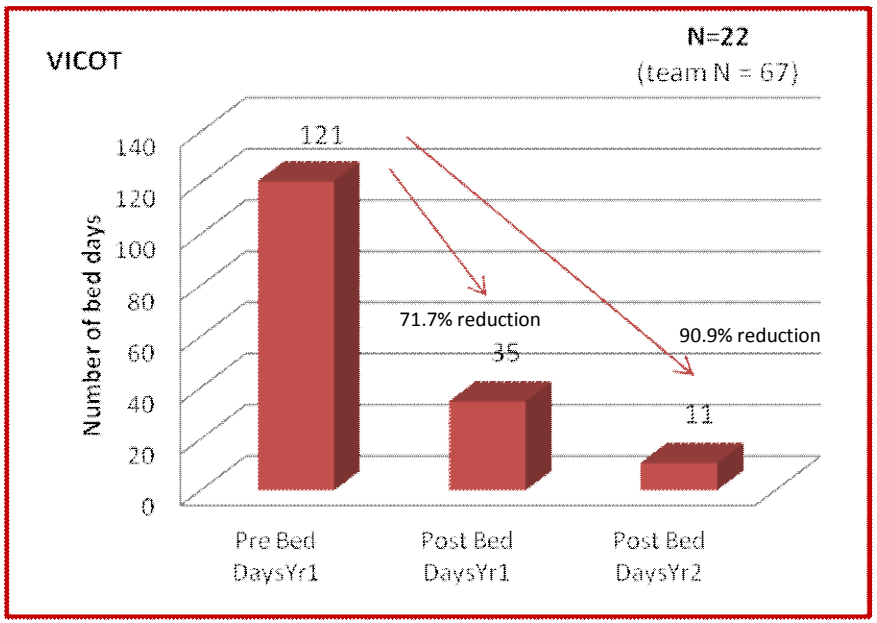
1 YEAR PRE AND 2 YEARS POST ACT ADMISSION

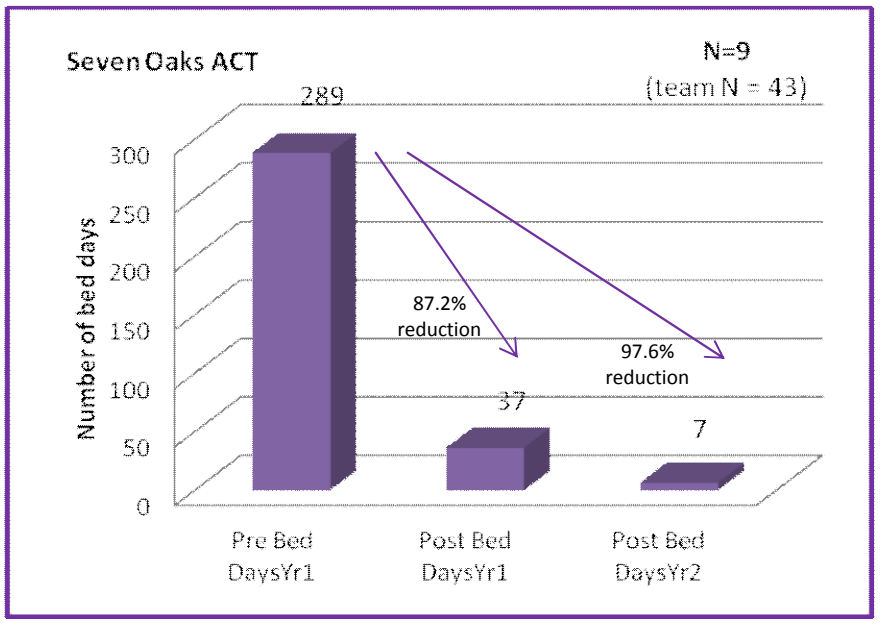
EM3A, EM3B, EM4A, EM4B, PIC, KEN2, WAT2, 4STH-CD, 2SER, 2SWR, 1NWR, 1SWR, 2NER, 2NWR, PICJ, PIPJ, PSY-N, PIC

Reduction % is from 1 yr Pre ACT

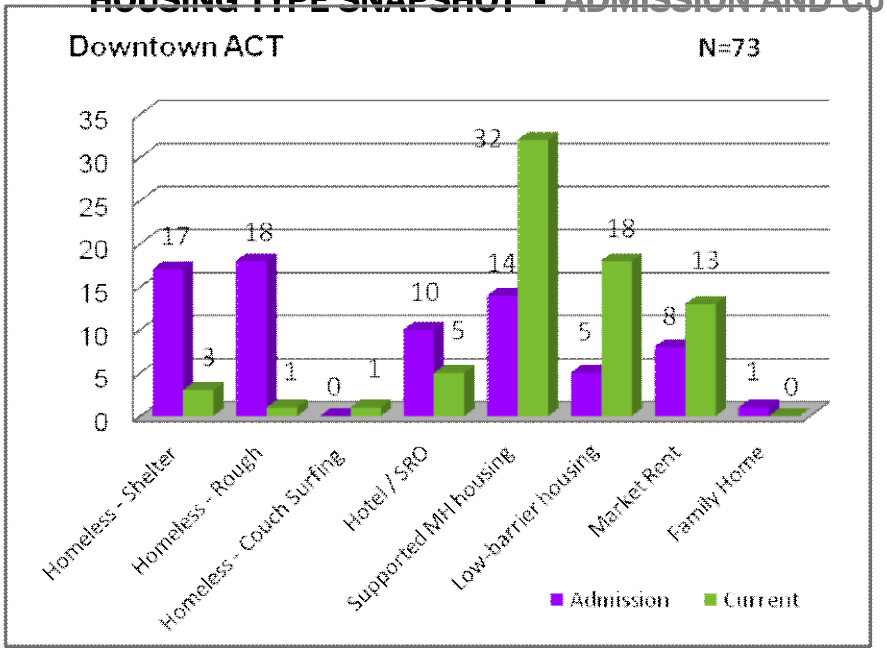


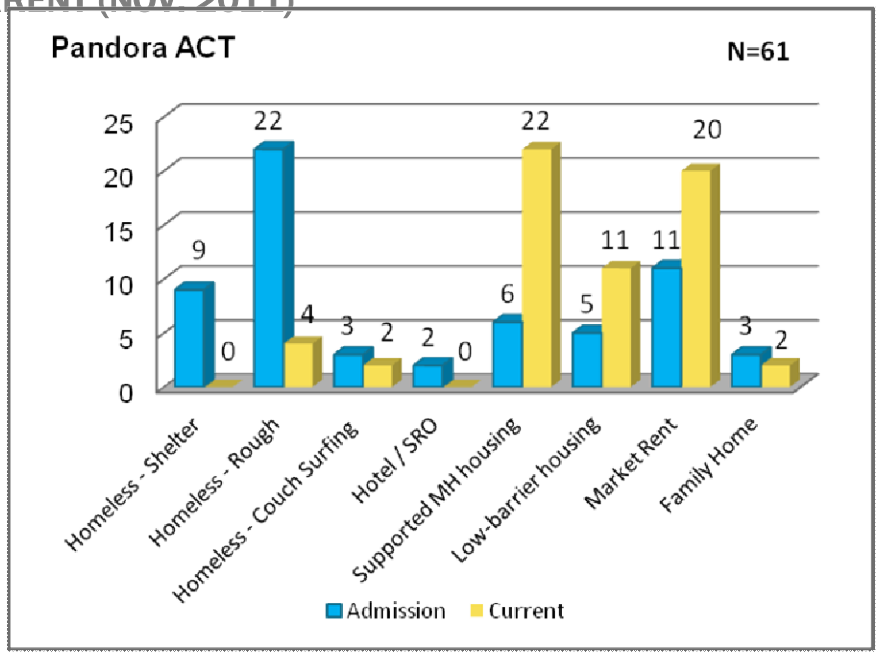


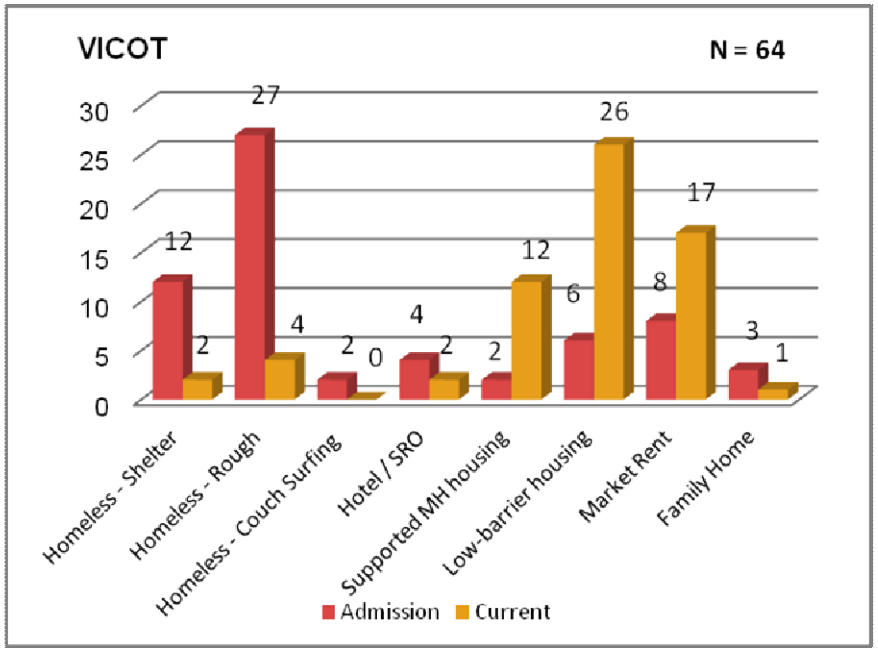


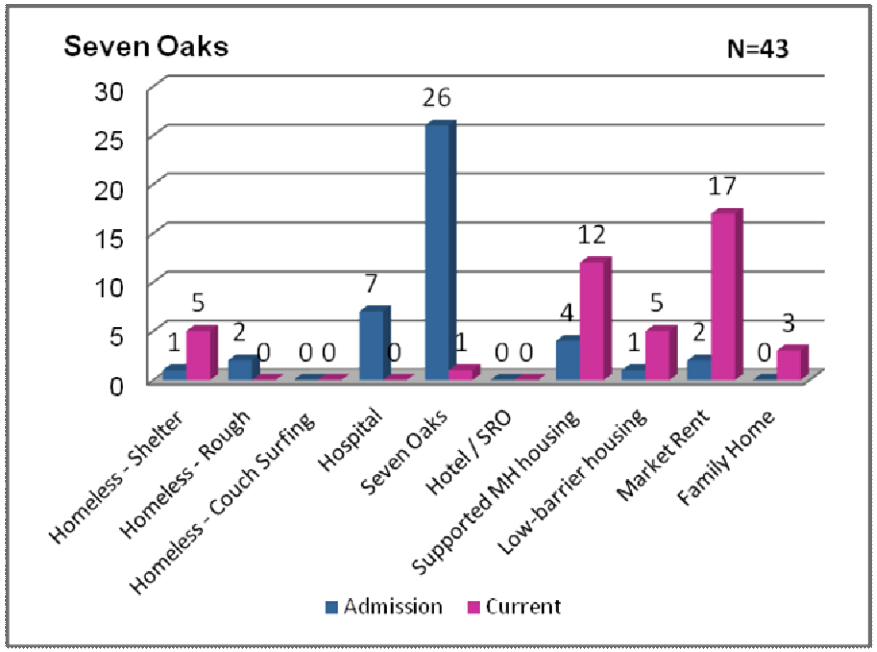


HOUSING TYPE SNAPSHOT - ADMISSION AND CURRENT (NOV. 2011)









FACTORS AFFECTING ACT INTAKE RATE, CAPACITY AND DISCHARGE RATE

- Staffing complement and staffing turnover, especially key roles such as team leader or psychiatrist
- "protection" of any "front line" staff member(s) from primary caseload
- "developmental" stage and age of the team
- Current number of patients on the team
- Patient psychiatric and service needs acuities, "quadrant four" and homelessness numbers
- Frequency of face to face and indirect contact per patient
- Potential for discharge: stepdown and other case management service availabilities
- Commitment to clinical and then personal recovery
- Travel times/distances for patient contacts

STAFFING COMPLEMENT

Front line staffing complement

Staffing stability/turnover

Experience/quality of the team members

Team leader turnover/stability

Psychiatrist turnover/stability

“protected” staff members from “front line work”

Emphasis on clinical and personal recovery

PROTECTED STAFF MEMBERS

Partial protection from full individual caseload

Usual motivations for this reduced caseload

- Community development of vocational venues
- Special educational/academic assignments
- Special ACT team clinical or structural assignments

STAGE AND DEVELOPMENT OF THE TEAM

Staffing Capacity /Budget of the Team

numbers of front line workers

front line workers: patient ratio

often cited as capacity at 1:10

Phases of team intake of new patients

Getting going with 10 to 15 patients

Early Intake: ~ 3 per month thereafter until approaching “equilibrium”

Later Intake: slows down to 1-2 per month as approaching full capacity and as team adds to “replace” those patients who are discharged

New admissions are on average much more work intensity than discharge ready patients

STAFFING FOR ACT TEAMS

	VICTORIA					NANAIMO	CAMPBELL RIVER	PORT ALBERNI
TEAM	**DACT**	**VICOT**	**PACT**	**SOAKS**	**STEP**			
# OF CLIENTS	71	65	73	49	39			
PSYCHIATRIST	1	1	1	1	1			
TEAM LEAD (TL)	1	1	1	0.8	0.2			
TL EDUCATION	R.N.	M.A.		R.P.N.	R.P.N.			
ADMIN SUPPORT	1	1	0.9	1	0.1			
FRONTLINE WORKERS								
R.N.	3	2	1	1	1			
R.P.N	0	1	2	2	0			
SOCIAL PROGRAM OFFICER (SPO)	3	2	3	2	0			
SPO EDUCATION	1-M.A. 1-M.S.W. 1-B.S.W.	1-M.Ed 1-B.S.W	2-M.A. 1-B.S.W.	2- B.A.	0			
OCCUPATIONAL THERAPIST	0	0	0	0	0			
OUTREACH WORKER	5	4	4	5	1			
PEER SUPPORT	0	0	1	0	0			
FRONTLINE STAFF	11	9	10	10	2			
FRONTLINE STAFF TO PATIENT RATIO (1:_)	6.5	7.2	7.3	4.9	24.5			
OTHER								
NURSE PRACTITIONER	0.6							
GENERAL PRACTITIONER	0.1							
PROBATION OFFICER	0	1	0	0	0			
POLICE OFFICER	1							
MINISTRY OF SOCIAL DEVELOPMENT WORKER	1							

TEAM COMMITMENT AND MANDATE TO RECOVERY SERVICES

Clinical recovery

- Treatment,
- ADL supports
- crisis stabilization,
- basic entitlements

Personal recovery

- Autonomy and Self management
- Vocational and educational pursuit … with staff involvement and support
- Family engagement and (re) integration

PERSONAL RECOVERY TEAM COMMITMENT

Individual service/treatment plans development and evolution over time

Shift towards time spent progressively (on average) towards personal recovery goals

Major impact on team capacity and case loads

- Investment of visits, time, energy in rehabilitation

“Pressures” on teams to increase intake and overall capacity

ACT TARGET POPULATIONS

Tripartite target population

- Long stays of psychiatric hospitals, facilities
- Acute care “heavy users” of the general hospital system (bed days and ER utilization)
- Homelessness and Severely mentally ill and/or addicted

Understanding the differential proportions on a given ACT team

“QUADRANT IV” PATIENTS ON ACT TEAMS

Percentage of the patient census coming from

Long term hospital settings, acute care recidivists, etc

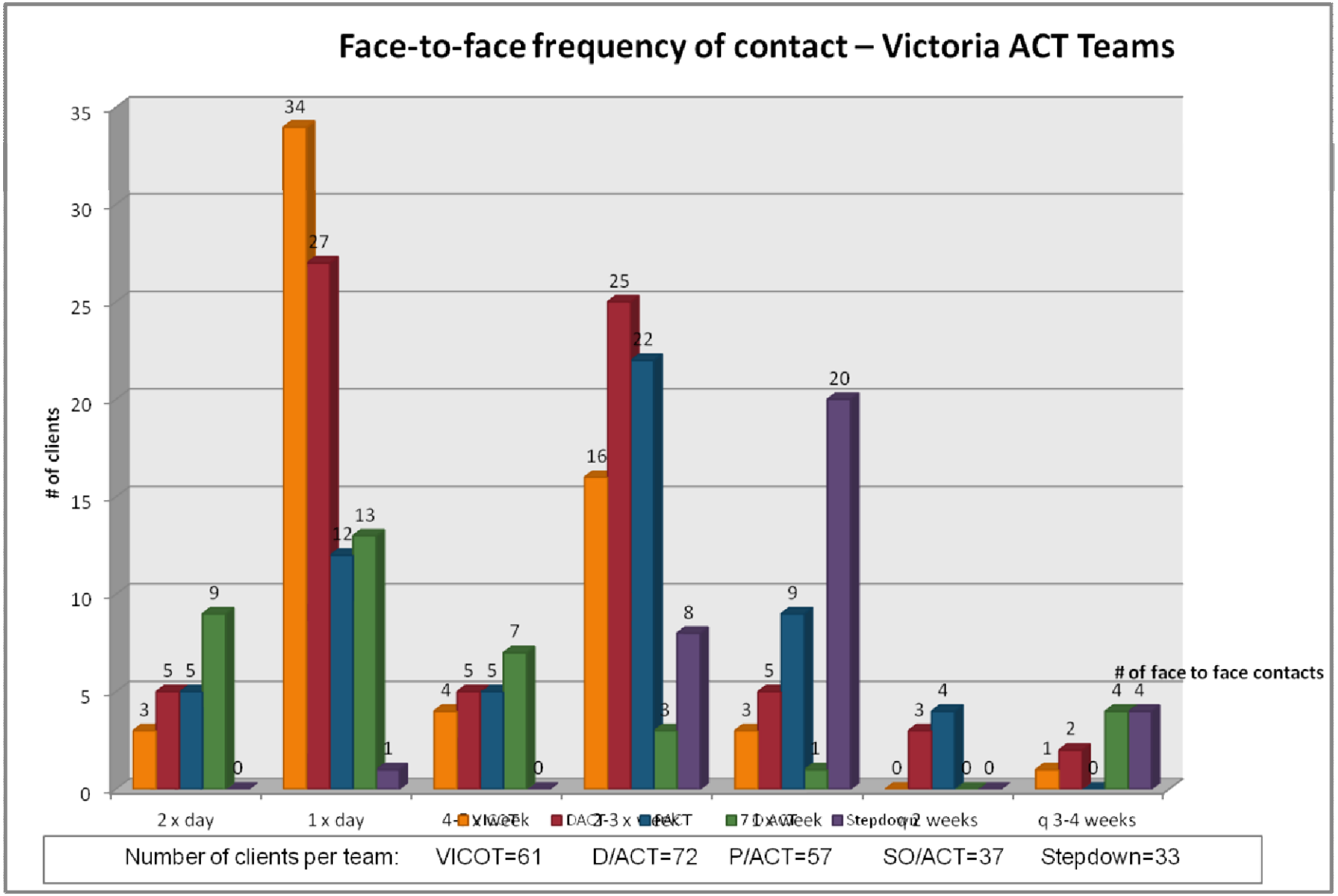
- Severely mentally ill and addicted (quadrant IV)
- Addicted to what kinds of substances?
  - THC, cocaine, metamphetamime, opioids, alcohol
- Homeless at the time of admission
- Frequency of Evictions

Does the frequency of contact significantly change for this subpopulation of patients?

QUADRANT IV PATIENTS AND ACT CAPACITY

Hypothesis

- ACT teams give lots more attention, on average to quadrant IV individuals…on the basis of more day to day service needs, including more crises visits
- The day to day visits are necessary to effect positive outcomes such as sustained housing, reduced substance abuse, increased opportunity to be engaged in progressive recovery beyond clinical stability


Face-to-face frequency of contact – Victoria ACT Teams
# of clients
# of face to face contacts
2 x day
1 x day
4-7 x week
2-3 x week
1 x week
q 2 weeks
q 3-4 weeks
Stepdown
Number of clients per team: VICOT=61 D/ACT=72 P/ACT=57 SO/ACT=37 Stepdown=33

FREQUENCY OF CONTACT SUMMARY

Victoria ACT teams seeing patients much more frequently each week than the provincial average by standards

- 4,5,6 x per week as opposed to 2,3 x per week

Victoria ACT teams seeing higher acuity patients by virtue of clinical comorbidities of Quadrant IV patients and mandates to significantly target homeless patients

DISCHARGE RATES AND FACTORS

Standards for Discharge Rates

- ~10% per annum (Ontario, BC standards)

Discharge Criteria

- To what kind of service and when?
- Local/Generic Case management
- Specific Stepdown ACT team service

Victoria Stepdown Service

VICTORIA ACT STEPDOWN SERVICE

Same team leader as one of our ACT teams

Same psychiatrist as one of our ACT teams

Same ACT clinical service chief for all 5 teams

4 ACT teams feeding into 1 Stepdown Service

2 very experienced clinicians, serving ~ 50 pts

1:25 service ratio

Criteria of admission to stepdown

- Transfers only from the existing ACT teams
- No more that once per week face to face contact on average
- No crises/hospitalizations in last year prior to transfer
- “step across/ step up” to more personal recovery opportunity

CONCLUSIONS

Capacity of ACT Teams probably not best conceptualized against a 1:10 ratio but rather formulated against target population mandates, recovery emphases, many other staffing and service delivery factors…much more likely 1:8 in capacity capping

Teams do well to measure and understand the factors affecting capacity:

- **staffing endowment, team stage and development**
- **population served, geographic and catchment area context**
- **intake rate,**
- **proportions of Quadrant IV patients,**
- **frequency of contact data**

Stepdown team and overall discharge considerations

CONCLUSIONS

Mental Health Services do well to honour the mentally ill and addicted by taking seriously the logic model and accountabilities and efficiencies of their services

ACT Teams are well known for robust service articulation and outcome measurement

ACT teams do well to have proper attention to

1) thorough target population understanding and measurement

2) thorough service delivery model fidelity and measurement

3) thorough outcome measurements of key determinants

4) thorough understanding of capacity and factors affecting intake, census, and discharge rates