

# Characteristics, Enablers, and Barriers of Clinical Pharmacy Service Delivery at Small Hospitals in British Columbia

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### Background

- Team-based clinical pharmacy services are associated with improved patient outcomes and reduced costs.
- Most hospitals in British Columbia (B.C.) have less than 200 acute care beds.
- Details about clinical pharmacy services including clinical pharmacy KPI (cpKPI) in small B.C. hospitals are unknown.
- The Consolidated Framework for Implemented Research (CFIR) allows enabler/barrier assessment of five implementation constructs of clinical pharmacy services: intervention, outer setting, inner setting, individual, and process characteristics.
- Determining current service delivery and associated enablers and barriers will inform improvement efforts.

### Objectives

- To determine the proportion of hospitals providing any on-site clinical pharmacy services.
- To characterize cpKPI activity.
- To determine the top 5 barriers and enablers to providing clinical pharmacy services.

### Methods

#### Design

- Internet-based survey questionnaire.

#### Sampling & Setting

- Twenty three pharmacy license holders of 35 B.C. hospitals with fewer than 200 acute care beds.
- January to April 2022.

#### Data Collection

- Two-part Survey Questionnaire (Qualtrics)
  - Part 1: 15-item - Characteristics and cpKPI delivery.
  - Part 2: 33-item - Likert-scale questionnaire - CFIR enablers & barriers; free text capture of top barriers.

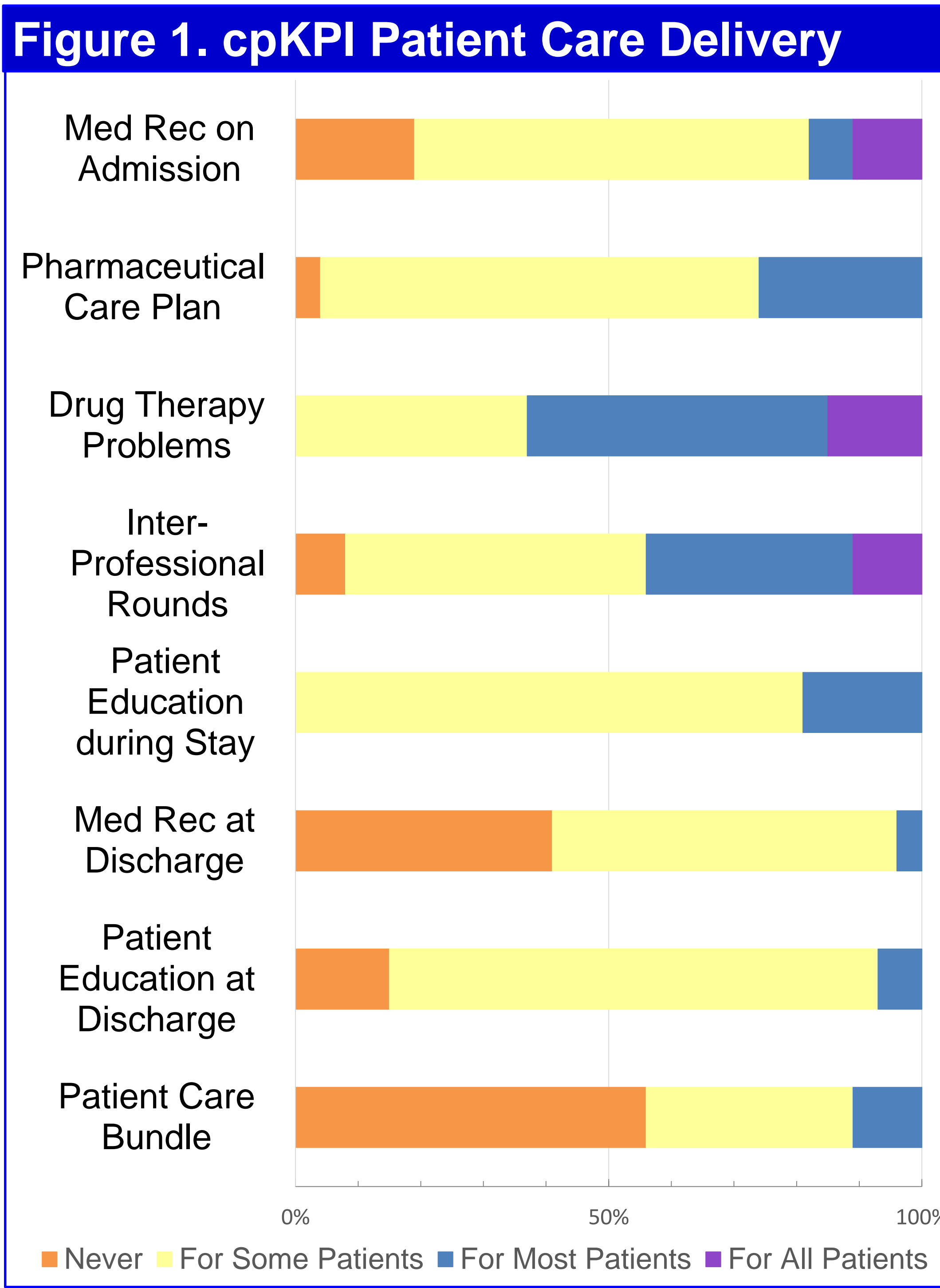
#### Data Analysis

- Data analyzed using descriptive statistics.
- 4-point Likert-scale Enabler/Barrier: >50% of respondents affirm or deny.
- Free text responses categorized into the top 5 self-reported barriers.

Results - 18/23 (78%) Survey Response Rate Representing 37 Hospitals

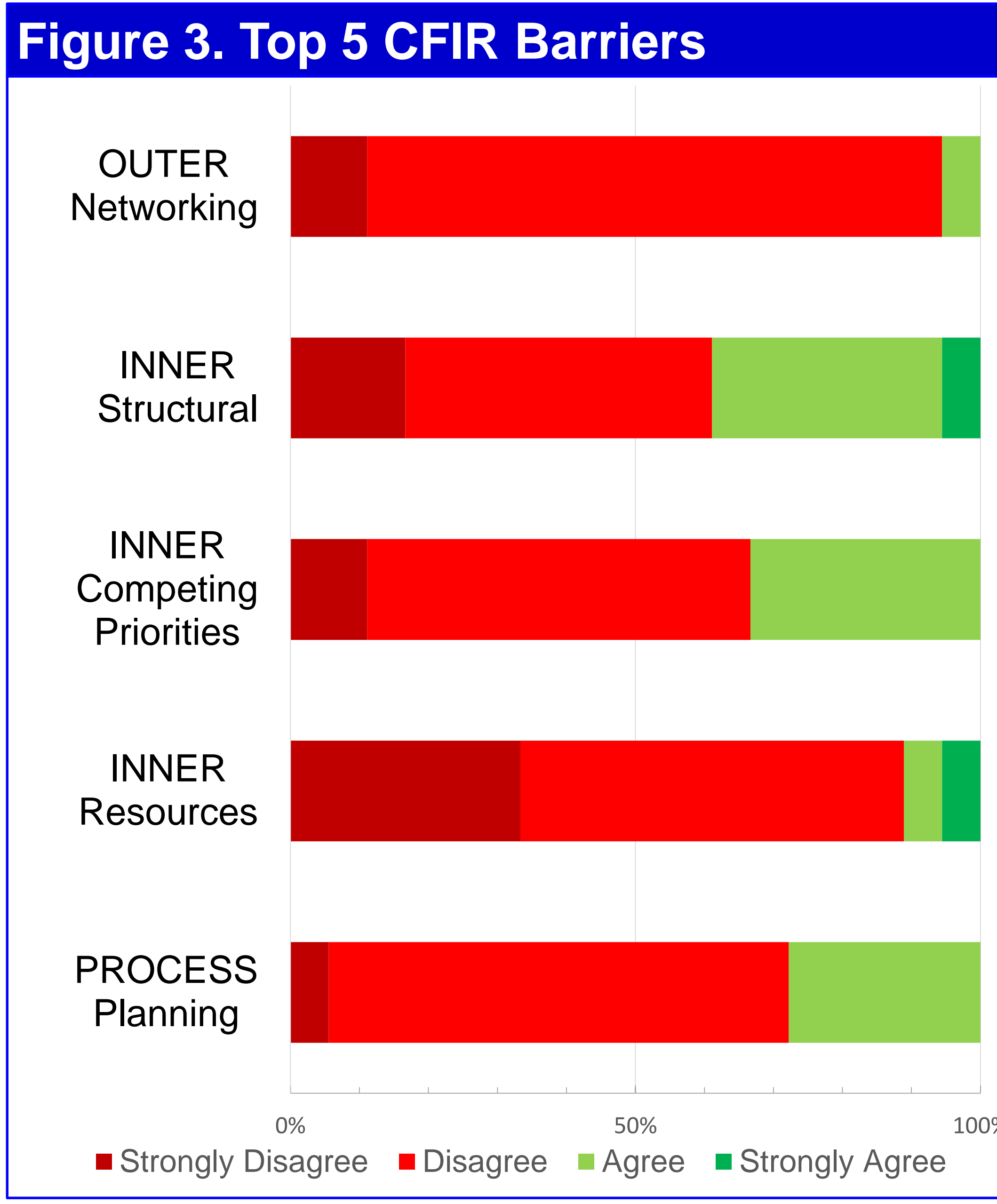
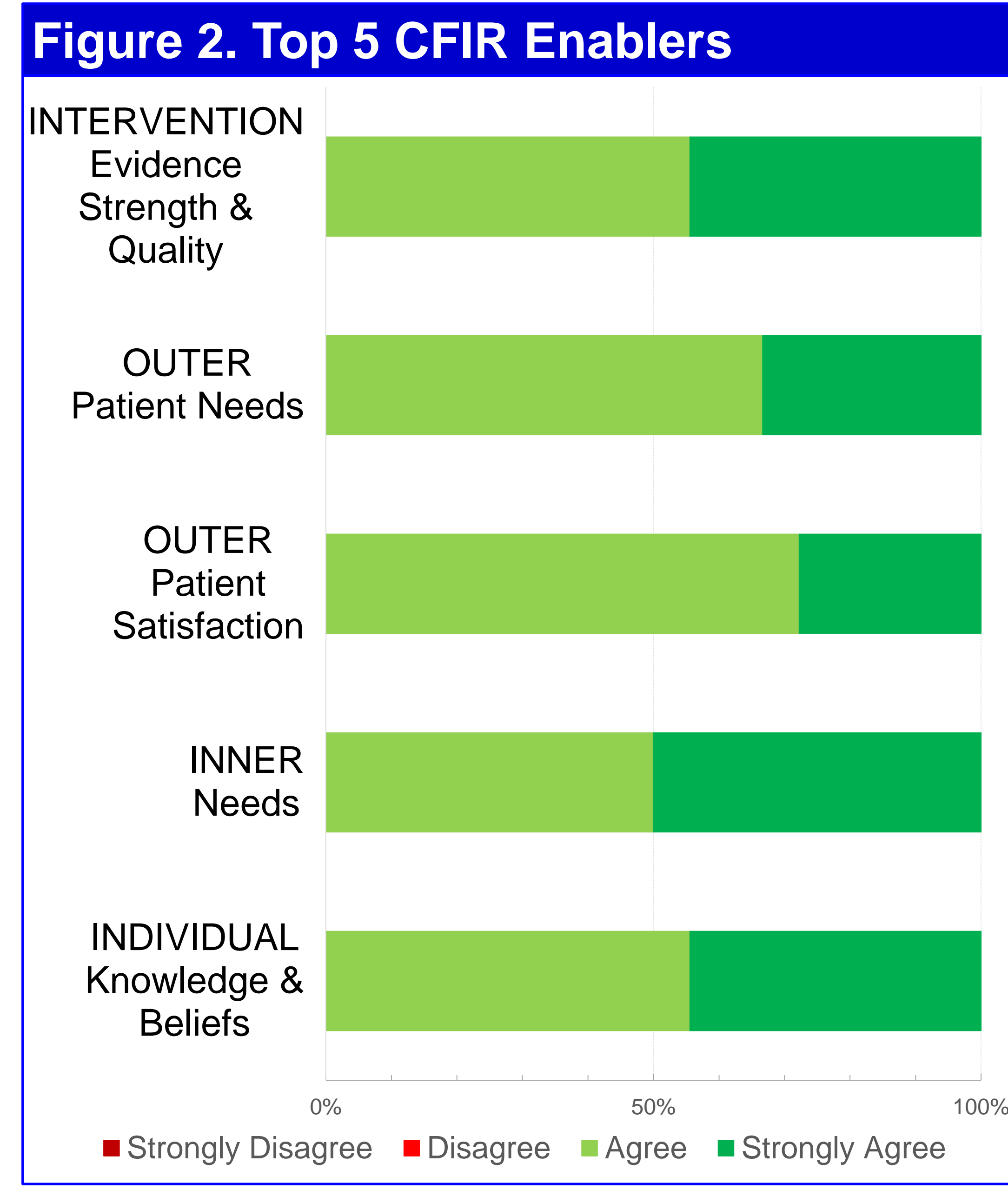
### Table 1. Site & Pharmacy Characteristics

Category	Characteristic	Result
ACUTE CARE BEDS	1-49	24 (65%)
	50-99	6 (16%)
	100-149	1 (3%)
	150-199	6 (16%)
EDUCATION	ETP	34 (92%)
	ETP + ACPR	19 (51%)
	ETP + PharmD	6 (16%)
	ETP + MSc	1 (3%)
	MHA	1 (3%)
	PhD	3 (8%)
	ACPR2	1 (3%)
FTE's	0.1 - 2	22 (59%)
	2.1 - 4	6 (16%)
	4.1 - 6	2 (5%)
	>6	7 (19%)
PRACTICE MODEL	Clinical. Dispensary.	11 (30%)
	Clinical with Dispensary	21 (57%)
	Dispensary	18 (49%)
	Other	4 (8%)
CLINICAL PHARMACY SERVICES	Yes	27 (73%)
	No	10 (27%)



### Table 2. Top 5 Self-Reported Barriers

Theme	Quote
Funding	"...as a small site operation coordinator, you are bound with smaller budget and cannot staff clinical pharmacists on the ward adequately."
Human Resources	"Lack of residency trained pharmacists willing to work in remote locations."
Leadership	"Without more clinical pharmacists present on the ward resolving issues, site leadership doesn't see the good value in clinical service."
Competing Priorities	"Lack of time for Pharmacy Coordinators that have dual roles for distribution and clinical services."
Location	"Geography & lack of public transit in an otherwise expensive to live area."



### Discussion

#### Strengths:

- CFIR is validated to assess barriers & enablers.
- Broad provincial perspective.
- High participant response rate (78%).

#### Limitations:

- Respondents could manage more than one site and site differences could not be captured in CFIR enabler & barrier questionnaire.
- Perspectives are from a management viewpoint.
- Social desirability bias.

#### Future Initiatives:

- Targeted Implementation Interventions can be designed and tailored based on the barriers to implementation identified by this study.

### Conclusions

- Most small B.C. hospitals report provision of clinical pharmacy services.
- Clinical pharmacy service delivery in small B.C. hospitals varied, with most common cpKPIs delivered being DTPs, interprofessional rounds, and care plans.
- CFIR barriers and self-reported barriers aligned.
- Top enablers are perceptions that clinical pharmacy services are of high value and top barriers reflect a perceived lack of priority planning, leadership, and resources.

