



Edmonton Zone 2030 Plan

European Healthcare Design 2016 Congress & Exhibition



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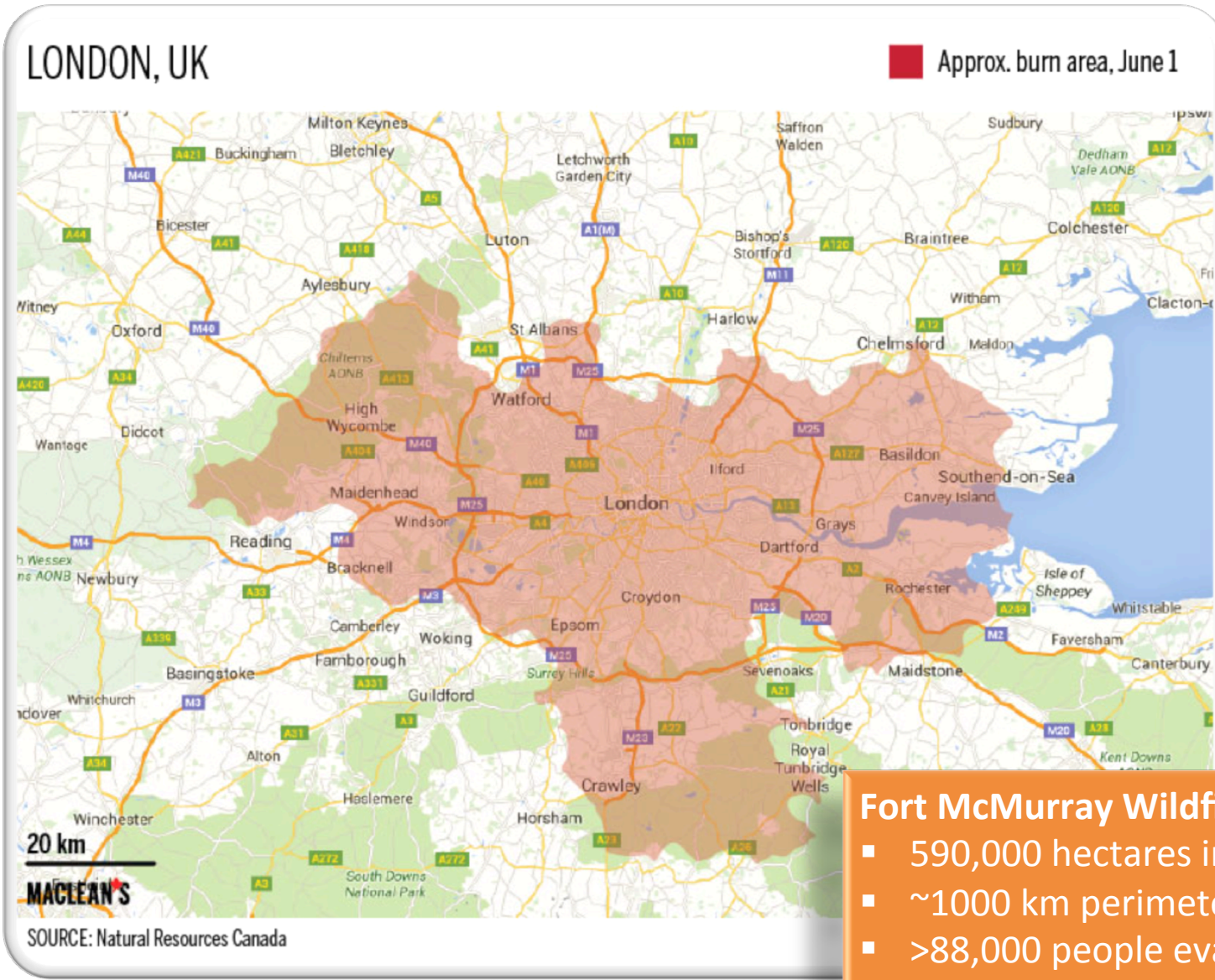




Dr. David Mador



Basel Abdulaal



- Fort McMurray Wildfire**
- 590,000 hectares in size
 - ~1000 km perimeter
 - >88,000 people evacuated
 - At least 2,400 structures burned

Alberta Health Services

- A publicly-funded healthcare system
- Provides health services to ~4M people scattered over 662,000 km²
 - 108,000 staff
 - 8,000 physicians
 - 16,000 volunteers
- Programs and services in 650 facilities
 - 8500 acute beds in 106 hospitals
 - 24,000 continuing care beds
 - Equity partnerships in 42 Primary Care Networks
- Operating budget \$14.3B
 - € 9.9B
 - £ 7.8B





Edmonton Zone of AHS

- Full range of health services including highly-specialized tertiary & quaternary services
- 1.2M people live in the city of Edmonton and six surrounding communities
- Major role as a regional service provider. Catchment population varies from 1.5M to 4.5M people. Most live in an area about 2,000,000 km² in size



- 65M people
- 244,000 km²

The 2030 Plan is...

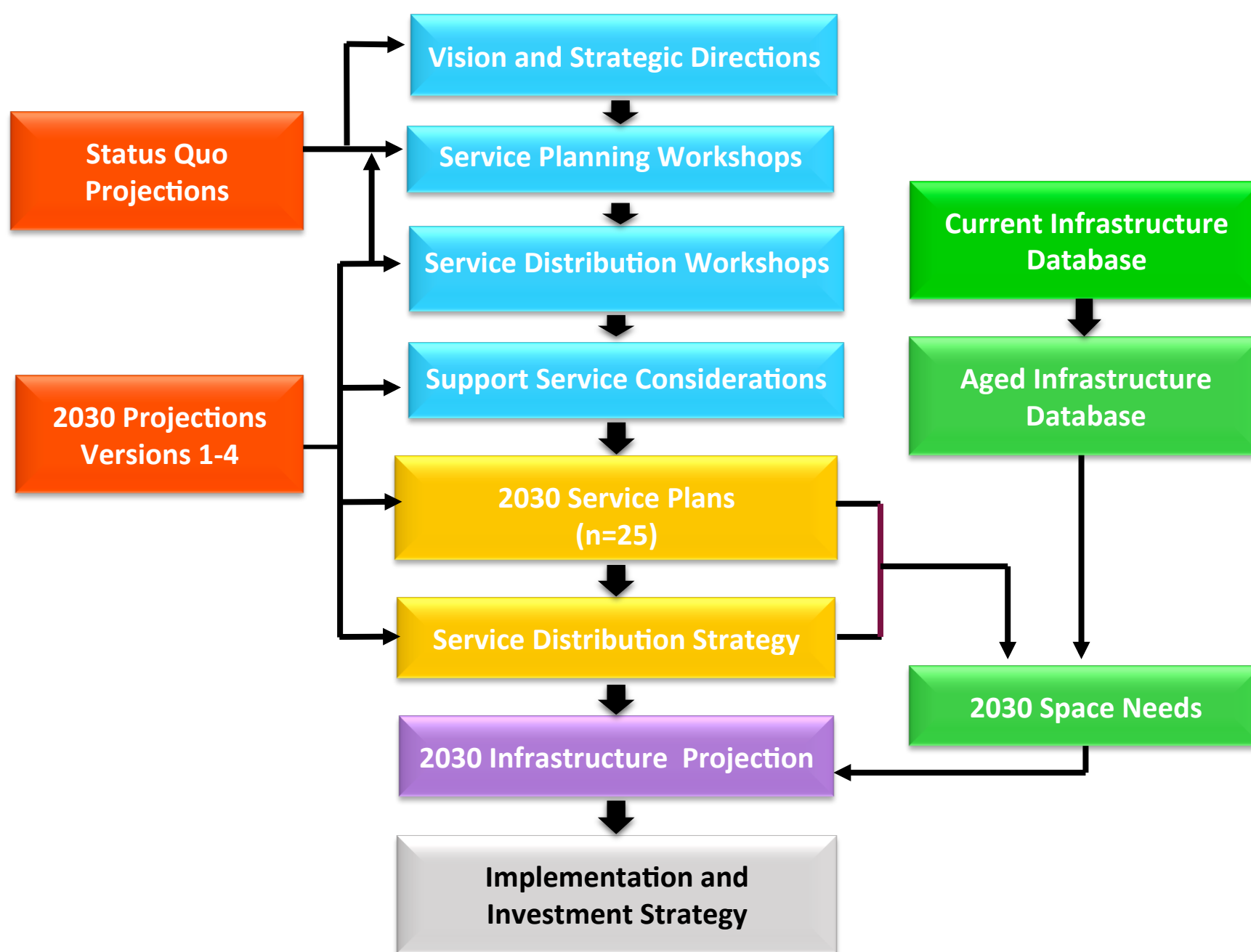
A unique, large-scale, comprehensive **integrated health service delivery & infrastructure plan** built on:

- Expected service demands and shifts in health needs
- Application of evidence and best practices
- Sustainability



Status Quo Projections & Sustainability

HEALTH SERVICE	PROJECTED CHANGE BY 2030
Family Practice/GP Services	39.1% increase
EMS Activity	57.0% increase in emergency events, 63.6% increase in non-emergency events (excl. inter-facility transfers)
Emergency Department Visits	33% increase 111% increase for aged 65 and older
Acute Care Inpatient Days	59.6% increase in acute care inpatient days equivalent to over 2,200 additional beds
Rehabilitation Inpatient Days	86% increase
Short Term Home Care	82% increase
Long Term Home Care*	138.3% increase
Continuing Care Beds*	50.3% increase
*Projections for continuing care incorporate service mix changes in the Continuing Care Capacity Needs Assessment	



RESULTS (part 1)

A RESTRUCTURED HEALTH CARE SYSTEM

'2030' Shifted the Focus Toward:



- Health promotion, primary care, home and community service delivery
- The use of distance technologies
- Right-sizing the major elements of the system
- Evidence-informed and integrated service and capital planning

Reducing the Demand for Health Services

1. Injury reduction and health promotion
2. Stroke and MI prevention
3. Proactive health care for vulnerable populations



Shifts to Home and the Community



1. Community Health Centres (n=15)

- Rehab (PT, OT, SLP at a minimum)
- Public Health
- Home Care
- Mental Health
- After-Hours/Urgent Care
- Plus community-specific health services

2. Decanting selected Services out of Hospitals

- Hemodialysis
- Endoscopy
- Low-Risk Surgery
- Low-Risk Obstetrical Deliveries
- Hospice

Comprehensive, Multi-Level Rehabilitation Strategy

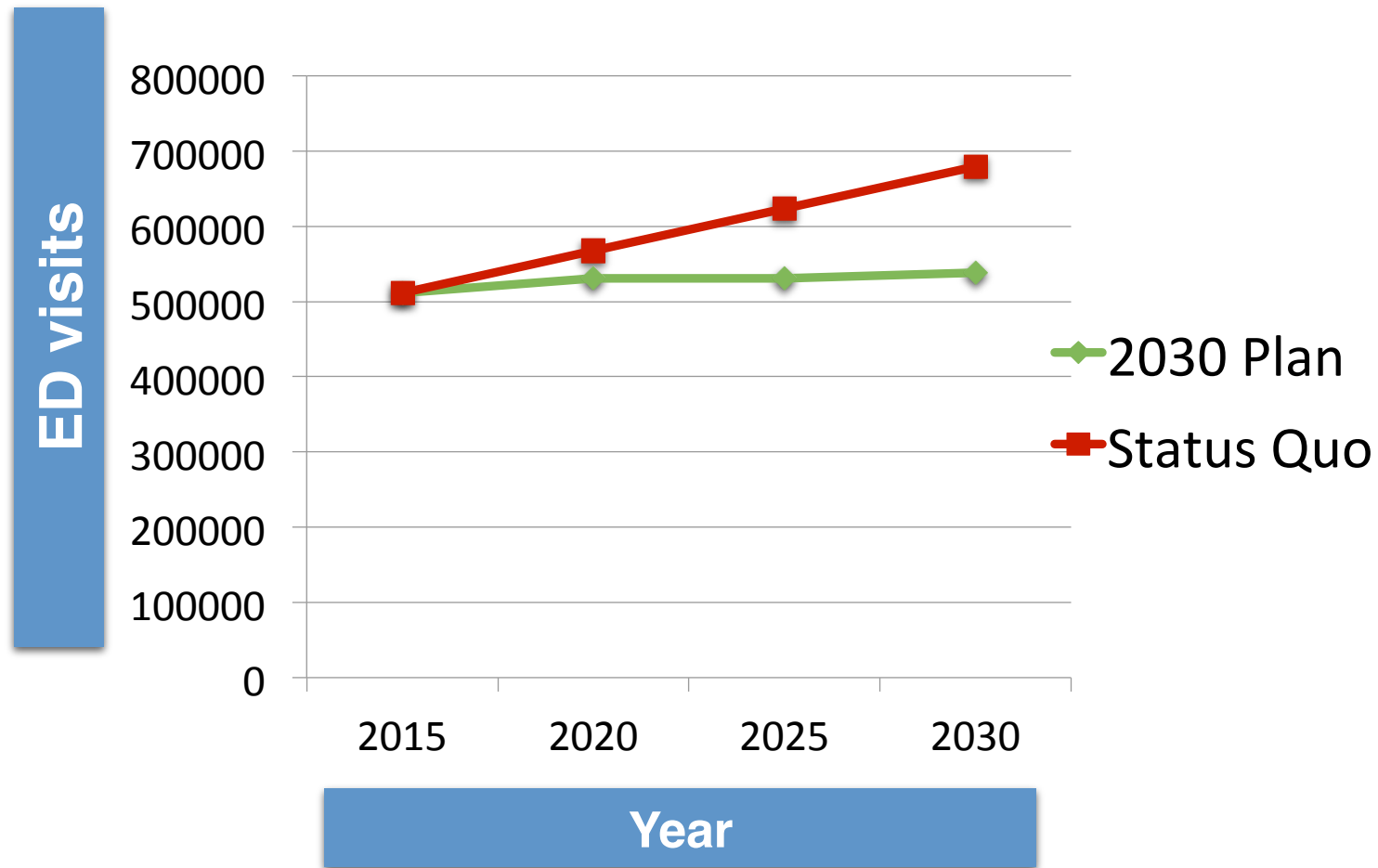


Optimize Acute Care

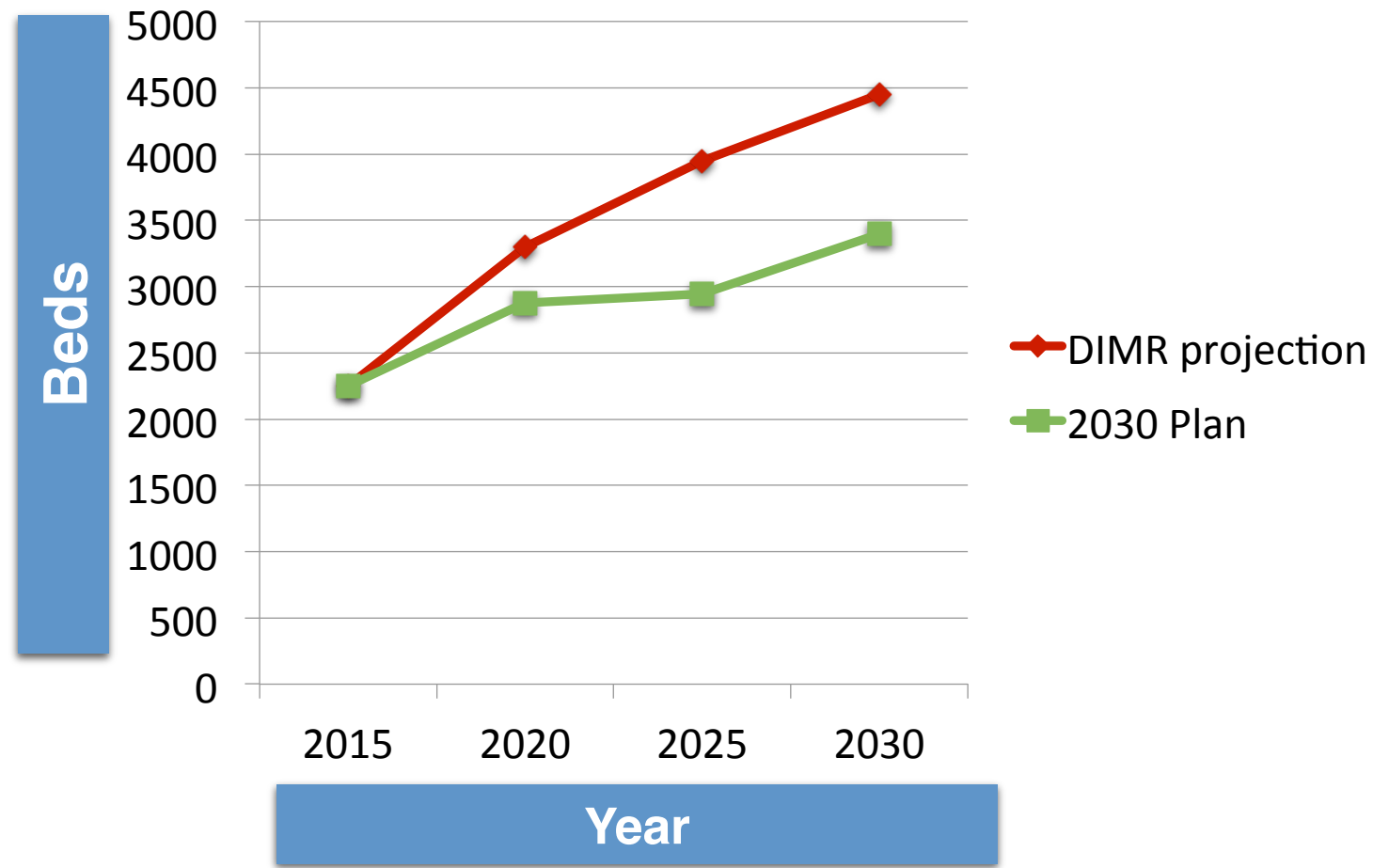
By 2025:

- Distribute acute care beds to align with demand
- Reduce acute care admission rates to that of peer facilities in Canada
- Target average length of stay at 85% of Canadian typical expected length of stay
- Alternate Level of Care (ALC) bed days reduced by 50% from current levels

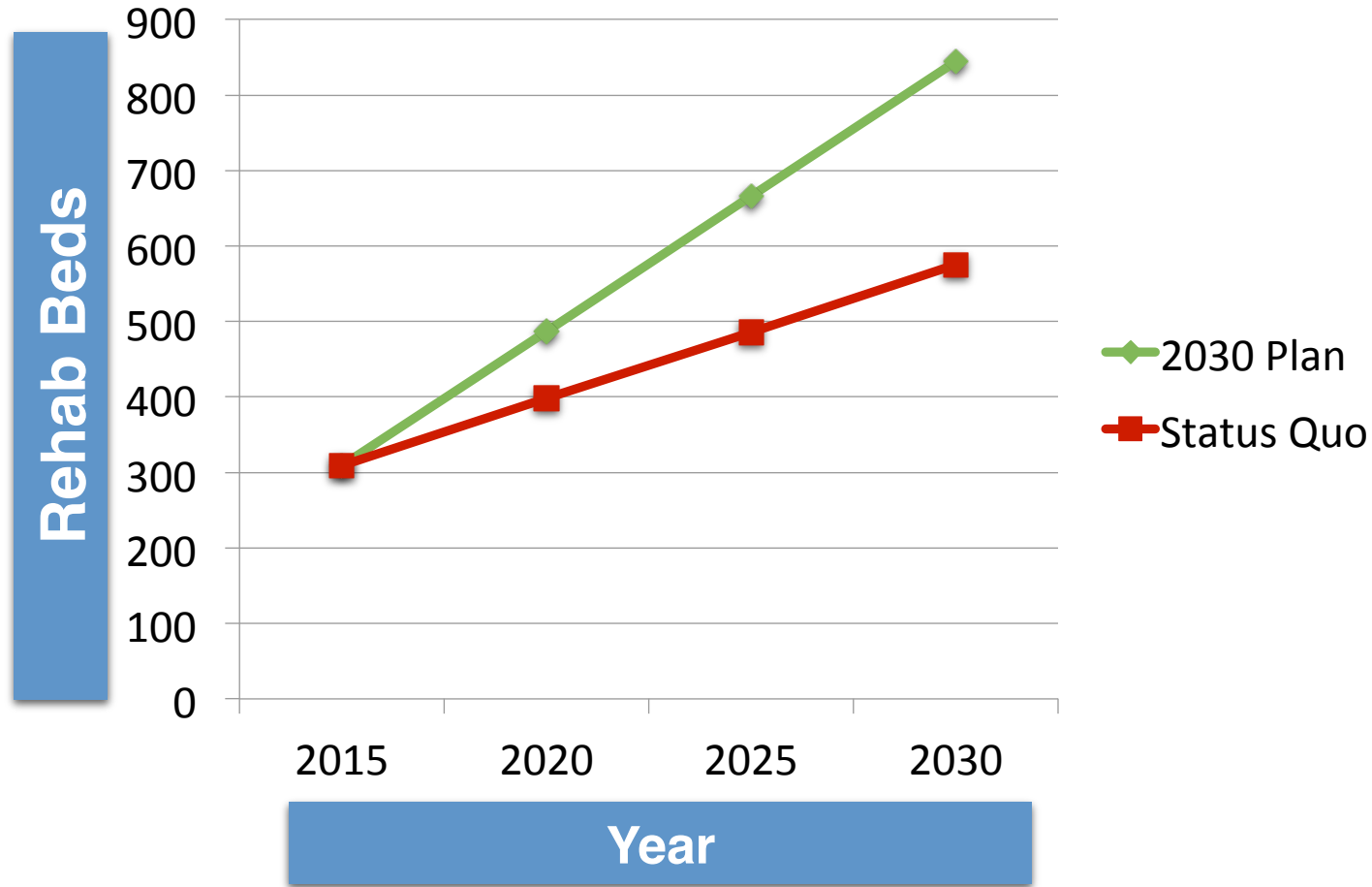
140,700 Fewer Emergency Visits



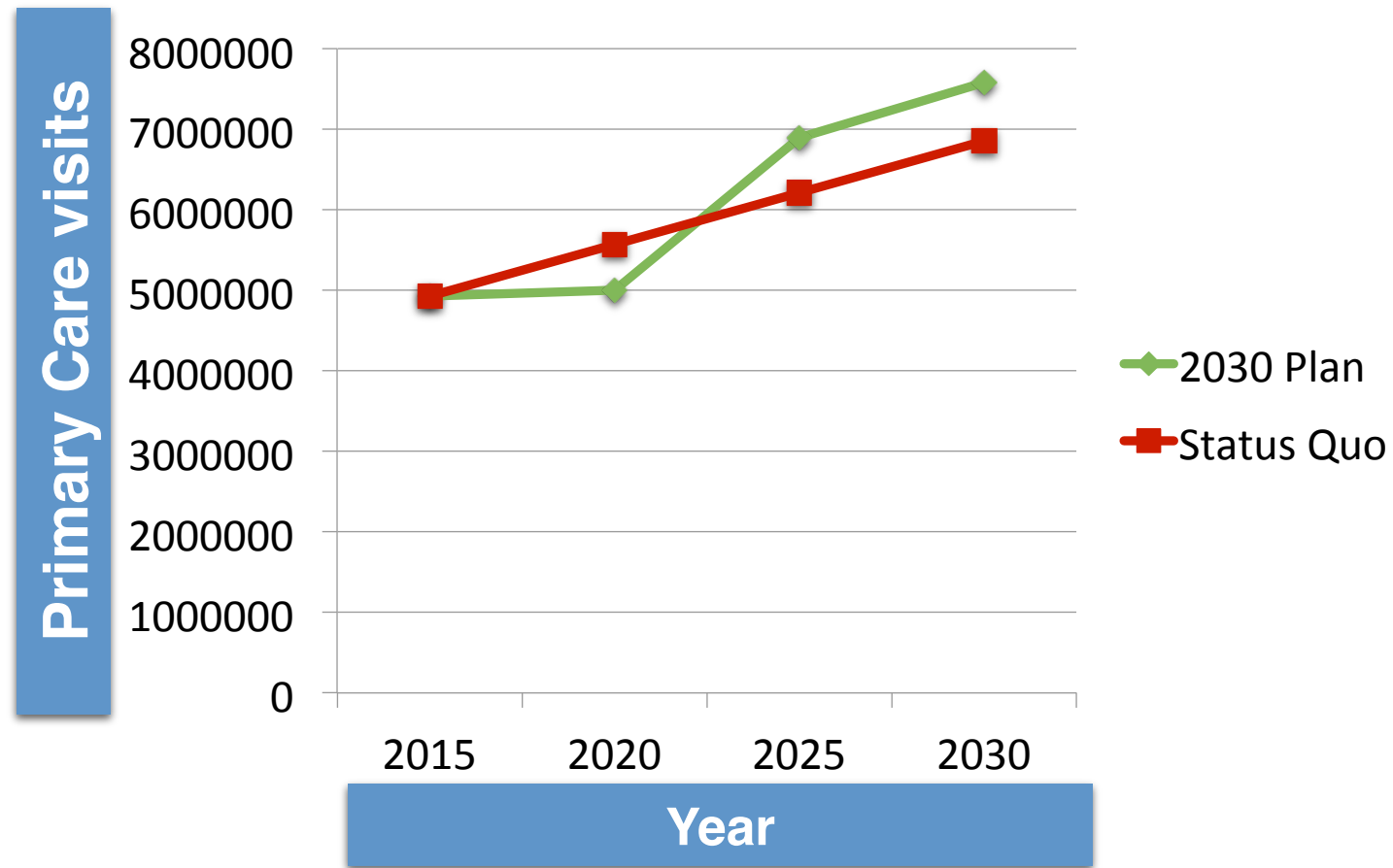
1,054 Fewer Acute Care Beds



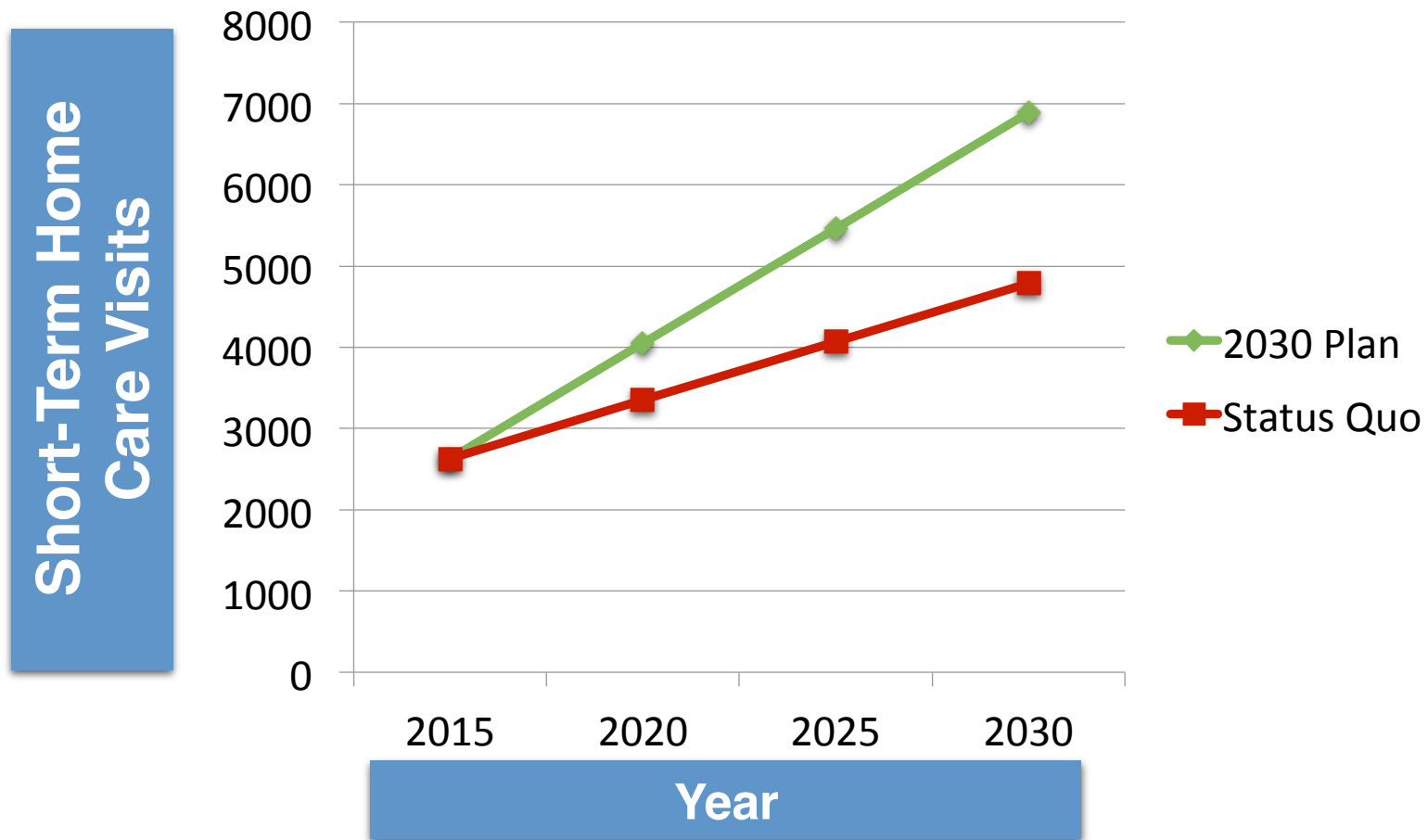
173% Increase in Rehab Beds



732,750 More Primary Care Visits



162% Increase in Short Term Home Care



RESULTS (part 2)

A SUITE OF PLANNING TOOLS

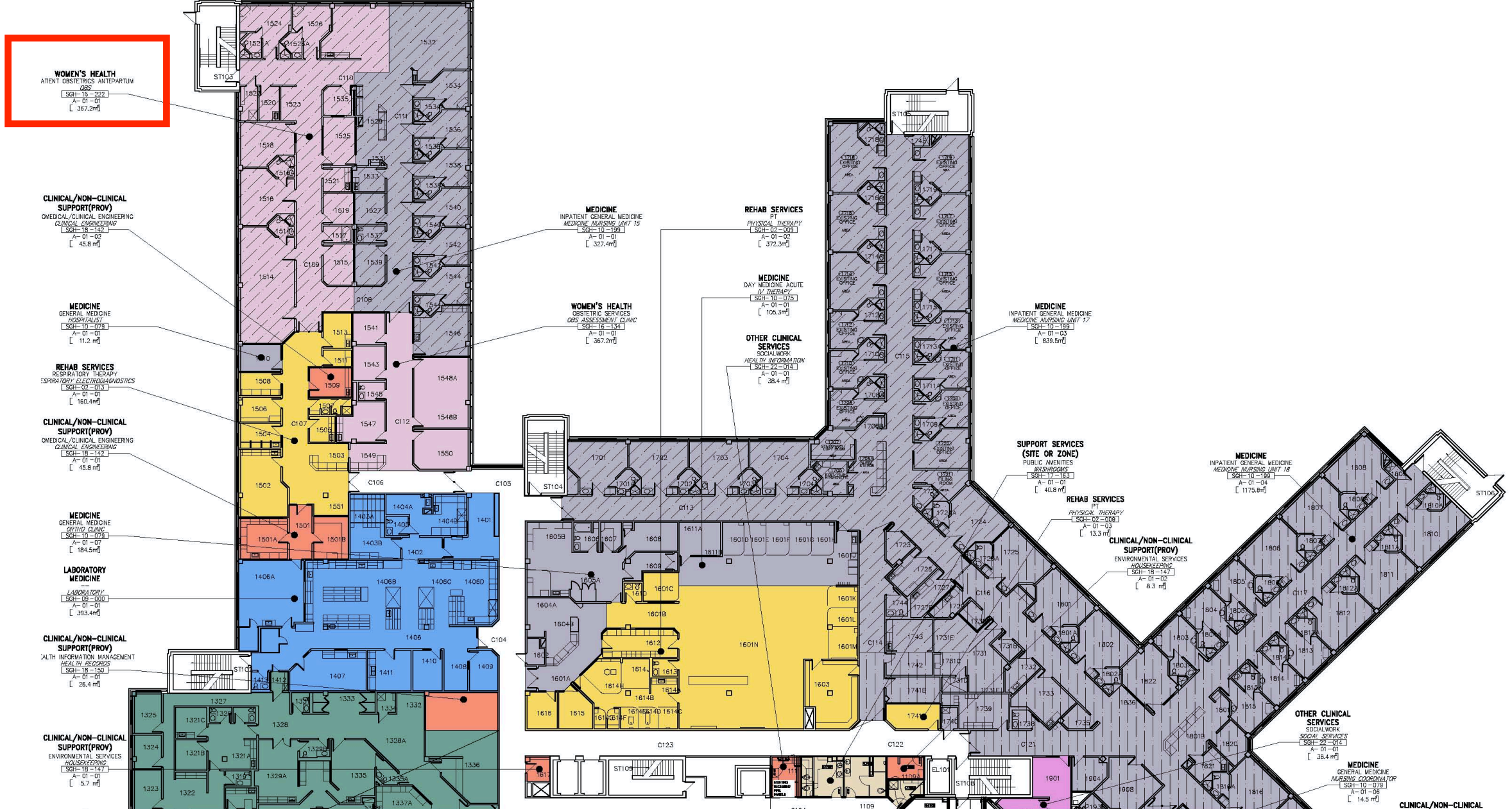
Taxonomy of Programs and Services

EDMONTON ZONE TAXONOMY OF PROGRAMS AND SERVICES v18

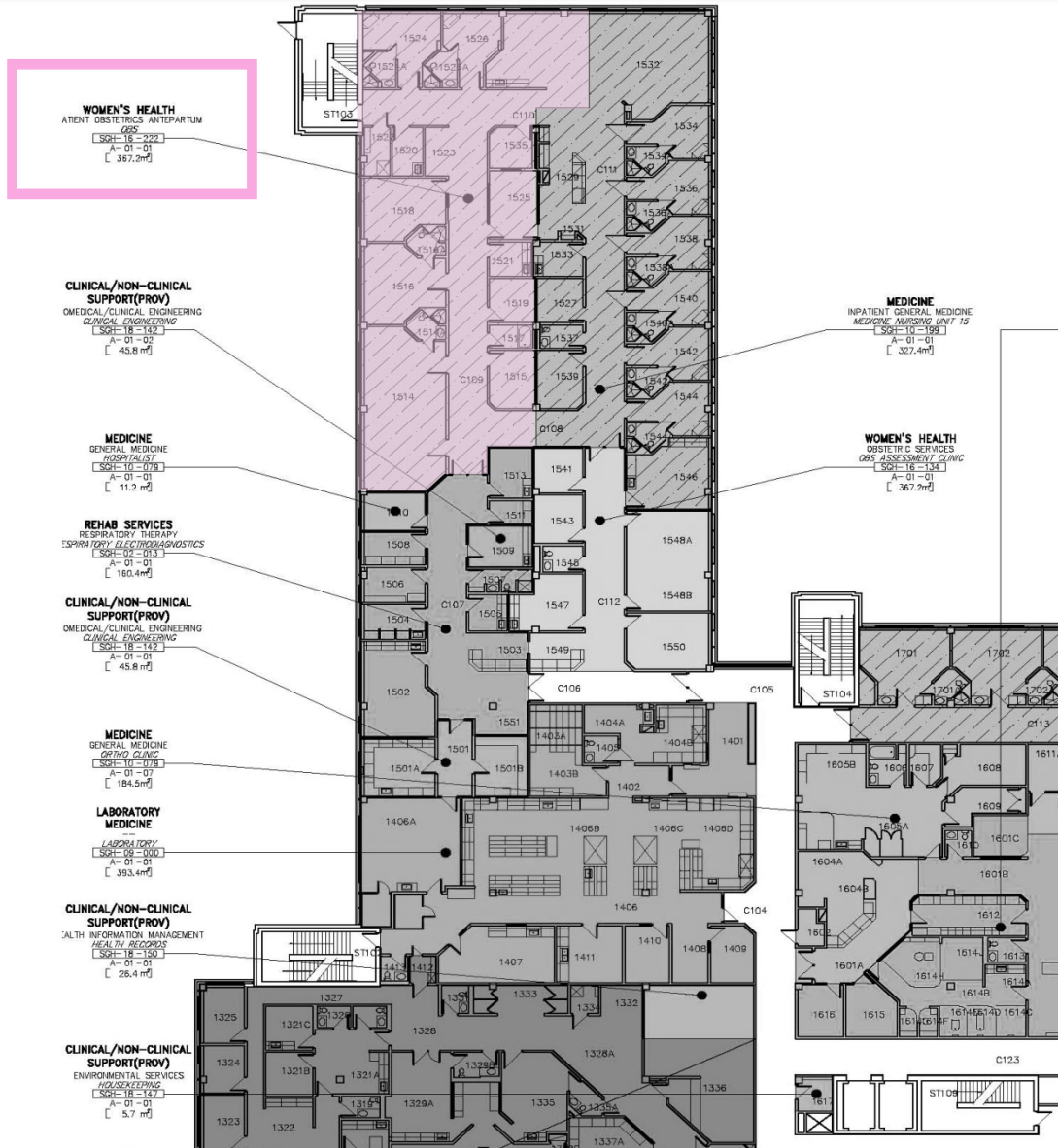
June 7, 2013

v18 PROGRAM CODE	v18 PROGRAM NAME	v18 SERVICE CODE	v18 SERVICE NAME
01	ADDICTION & MENTAL HEALTH	300	ADOLESCENT FORENSIC PSYCH. - INPATIENT
01	ADDICTION & MENTAL HEALTH	301	ADOLESCENT FORENSIC PSYCH - OP/DAY
01	ADDICTION & MENTAL HEALTH	302	ADOLESCENT PSYCH. - INPATIENT
01	ADDICTION & MENTAL HEALTH	303	ADOLESCENT PSYCH. - OP/DAY
01	ADDICTION & MENTAL HEALTH	304	ADULT ADDICTION - RESIDENTIAL
01	ADDICTION & MENTAL HEALTH	001	ADULT ADDICTION - OP/DAY
01	ADDICTION & MENTAL HEALTH	005	ADULT FORENSIC PSYCH - OP/DAY
01	ADDICTION & MENTAL HEALTH	186	ADULT PSYCH. - INPATIENT
01	ADDICTION & MENTAL HEALTH	002	ADULT PSYCH. - OP/DAY
01	ADDICTION & MENTAL HEALTH	188	ADULT FORENSIC PSYCH - INPATIENT
01	ADDICTION & MENTAL HEALTH	305	CHILD PSYCH. - INPATIENT
01	ADDICTION & MENTAL HEALTH	004	CHILD PSYCH. - OP/DAY
01	ADDICTION & MENTAL HEALTH	189	GERIATRIC PSYCH. - INPATIENT
01	ADDICTION & MENTAL HEALTH	006	GERIATRIC PSYCH. - OP/DAY
01	ADDICTION & MENTAL HEALTH	165	PSYCH. ICU
01	ADDICTION & MENTAL HEALTH	187	YOUTH ADDICTION - OP/DAY
01	ADDICTION & MENTAL HEALTH	003	YOUTH ADDICTION - RESIDENTIAL
02	ALLIED HEALTH	007	AUDIOLOGY
02	ALLIED HEALTH	008	OT
02	ALLIED HEALTH	010	PSYCHOLOGY
02	ALLIED HEALTH	009	PT
02	ALLIED HEALTH	011	RECREATIONAL THERAPY
02	ALLIED HEALTH	012	REHAB SERVICES (INTERDISCIPLINARY)
02	ALLIED HEALTH	013	RESPIRATORY THERAPY
02	ALLIED HEALTH	015	SLP
02	ALLIED HEALTH	014	SOCIAL WORK
02	ALLIED HEALTH	016	SPIRITUAL CARE
03	CARDIAC SCIENCES	018	CARDIAC CATH LAB & EP
03	CARDIAC SCIENCES	017	CARDIAC DIAGNOSTICS
03	CARDIAC SCIENCES	019	CARDIAC REHABILITATION
03	CARDIAC SCIENCES	021	CARDIAC SCIENCES - OP/DAY
03	CARDIAC SCIENCES	190	CARDIAC SURGERY - INPATIENT
03	CARDIAC SCIENCES	191	CARDIOLOGY - INPATIENT
03	CARDIAC SCIENCES	168	CCU
03	CARDIAC SCIENCES	041	CV ICU
03	CARDIAC SCIENCES	306	OBSERVATION BEDS - CARDIAC SCIENCES
03	CARDIAC SCIENCES	020	SURGICAL SUITE & PARR

Current State Drawings



Drawing Tagging System



WOMEN'S HEALTH
Obstetrics / Antepartum
OBS
SGH-16-222
A-01-01
367sm



Interactive, Searchable Databases

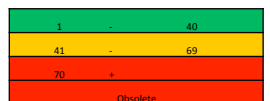
EZ 2030 Plan - Sub Zone Infrastructure Needs Projection

Building/Facility Condition Assessment

year	points / year	points / category	points / category	points / category
2015	1	-20	20	10
2020	1	-10	30	0
2025	1	-5	0	0
2030				0
				-10
				0

Scoring Benchmark Legend

No change
 Impending Replacement
 Major Upgrade or Replacement
 Considered Obsolete



BUILDING Sub-Zone 1 Bonnie Doon / Eastwood Sub-Zone 1 Bonnie Doon / Eastwood SERVICE

Building ID (zone, facility, build)	AHS ID	Building Classification (code)	AHS Owned or Leased	Facility/Building Name	Evaluation Year	Original Construction	Building Age	Year of Renovation	Major Renovations ¹	Building Condition (G,Y,R)	Building Longevity By Use	Evaluation Year Score	Evaluation Year Score	Evaluation Year Score	Total Score	BGSM	Evaluation Year	Acute Inpatient Bed	Critical Care Beds	Rehabilitation Beds	
		ACUTE HC EMS MH DA					(1 point per year)		-20 (0-10 yrs), -10 (11-15 yrs), -5 (16-20 yrs)	20 for red 10 for yellow 0 for green	building type factor 10 for ACUTE 0 for MH/MH/DA -10 for EMS	2020	2025	2030				beds	beds	beds	
1.01.01		ACUTE	owned	(RAH - A) - Robbins Pavilion (RP)	2015 2020 2025 2030	2009 2009 2009 2009	11 16 21			0 0 0	10 10 10	21 26 31	26 31	31	37649 37649 37649 37649	1	2015 2020 2025 2030	249 249 249 249	24 24 24 24	0 0 0 0	
1.01.02		ACUTE	owned	(RAH - B) - Material Management Centre	2015 2020 2025 2030	1993 1993 1993	27 32 37			10 10 10	0 0 0	37 42 47	42 47	47	6392 6392 6392 6392	2	2015 2020 2025 2030	0 0 0 0	0 0 0 0	0 0 0 0	
1.01.03		ACUTE	owned	(RAH - C) - Orthopedic Surgery Centre	2015 2020 2025 2030	2010 2010 2010	10 15 20			0 0 0	10 10 10	20 25 30	25 30	30	8458 8458 8458 8458	3	2015 2020 2025 2030	56 56 56 56	0 0 0 0	0 0 0 0	
1.01.04		ACUTE	owned	(RAH - D) - Renal Dialysis Unit	2015 2020 2025 2030	2003 2003 2003	17 22 27			10 10 10	10 10 10	37 42 47	42 47	47	861 861 861 861	4	2015 2020 2025 2030	0 0 0 0	0 0 0 0	0 0 0 0	
1.01.05		ACUTE	owned	(RAH - E) - ATC building	2015 2020 2025 2030	1960 1960 1960	60 65 70			20 20 20	10 10 10	90 95 100	95 100	100	0 0 0 0	5	2015 2020 2025 2030	0 0 0 0	0 0 0 0	0 0 0 0	
1.01.06		ACUTE	owned	(RAH - F) - Children's Pavilion	2015 2020 2025 2030	1964 1964 1964	56 61 66	2009 2009 2009	-10 -5	20 20 20	10 10 10	76 86 96	86 96	96	10123 0 0 0	6	2015 2020 2025 2030	28 0 0 0	0 0 0 0	0 0 0 0	
1.01.07		ACUTE	owned	(RAH - G) - Community Services Centre	2015 2020 2025 2030	1958 1958 1958	62 67 72			20 20 20	0 0 0	82 87 92	87 92	92	15744 0 0 0	7	2015 2020 2025 2030	0 0 0 0	0 0 0 0	0 0 0 0	
1.01.08		ACUTE	owned	(RAH - H) - Diagnostic Treatment Centre (DTC)	2015 2020	1994	26			10	10	46			46	47604 47604 47604	8	2015 2020	18 18	0 0	0 0

Infrastructure Aging Tool

EZ 2030 Plan - Sub-Zone Infrastructure Needs Projection

Building/Facility Condition Assessment

year	points / year	points / category	points / category	points / category
2015	1	-20	20	10
2020	1	-10	10	0
2025	1	-5	0	0
2030				-10
				0

Scoring Benchmark Legend
 No change
 Impending Replacement
 Major Upgrade or Replacement
 Considered Obsolete

1	-	40
41	-	69
70	+	
Obsolete		

Sub-Zone 1 Bonnie Doon / Eastwood

Sub-Zone 1 Bonnie Doon / Eastwood

BUILDING

SERVICE

Building ID (zone/facility/build)	AHS ID	Building Classification (code)	AHS Owned or Leased	Facility/Building Name	Evaluation Year	Original Construction	Building Age	Year of Renovation	Major Renovations ¹	Building Condition (G,Y,R)	Building Longevity By Use	Evaluation Year Score	Evaluation Year Score	Evaluation Year Score	Total Score	BGSM	Evaluation Year	Intensive Care Beds	Critical Care Beds	Rehabilitation Beds	
1.01.01					2020					20 For red 10 for yellow 0 for green	building type factor 10 for ACUTE 0 for MH/HC/DA -10 for EMS	2020									
1.01.02																					
1.01.03																					
1.01.04																					
1.01.05																					
1.01.06		ACUTE	owned	(RAH - F) - Children's Pavilion	2020	1964	56	2009	-10	20	10	76									
					2025	1964	61	2009	-5	20	10										
					2030	1964	66	2009		20	10										
1.01.07		ACUTE	owned	(RAH - G) - Community Services Centre	2015																
					2020	1958	62			20	0	82									

LOW SCORE IS GOOD

Add 1 point for every year:

Subtract points if renovated:

Add points for lower building quality:

Add points for increased medical complexity of use:

BUILDING SCORE

In 2015

In 2030

35

50

-10

-0

10

10

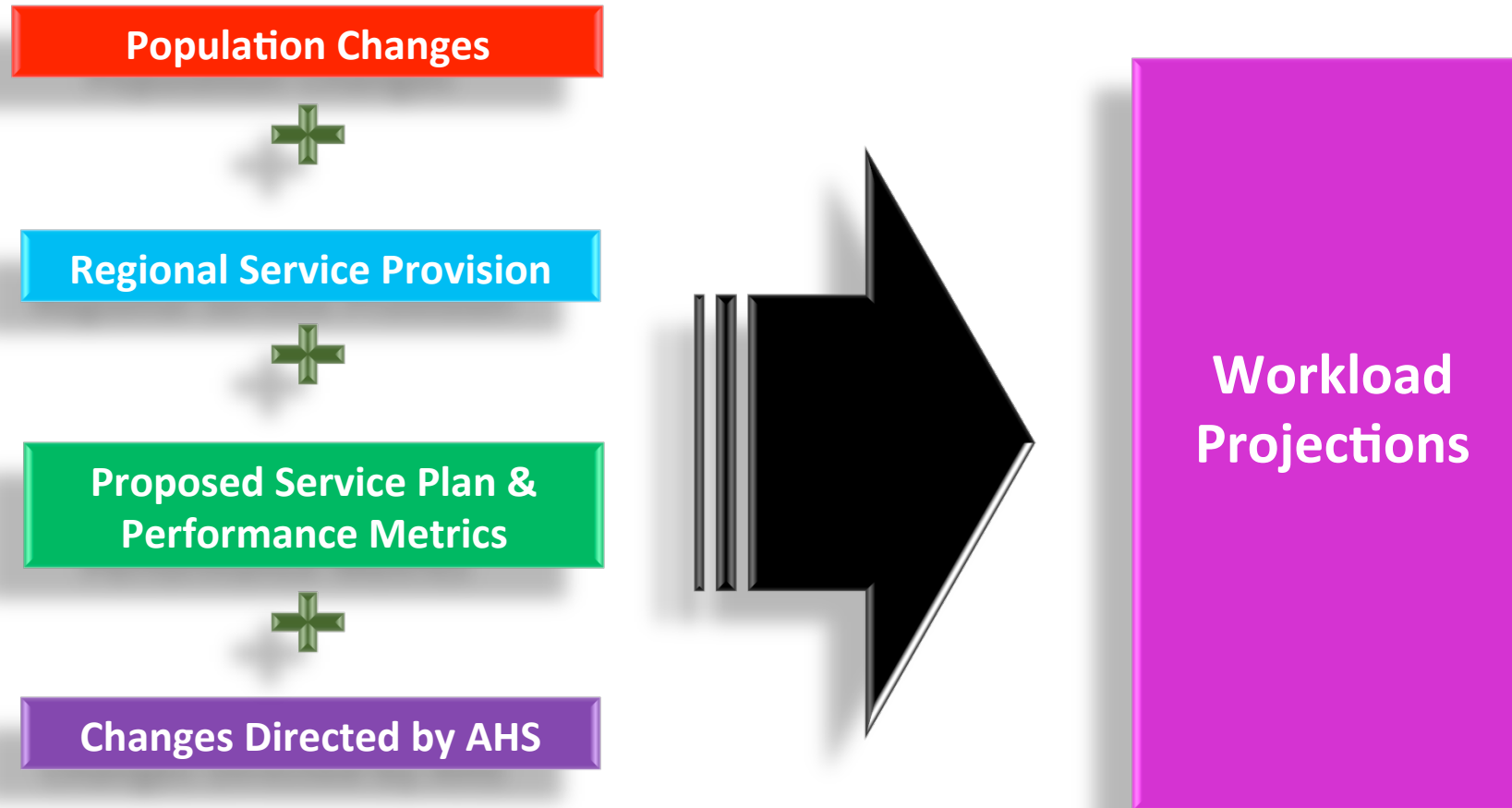
10

10

45

70

Service Projection Models (n=20)



Conversion of Workload to Infrastructure



Workload Projections

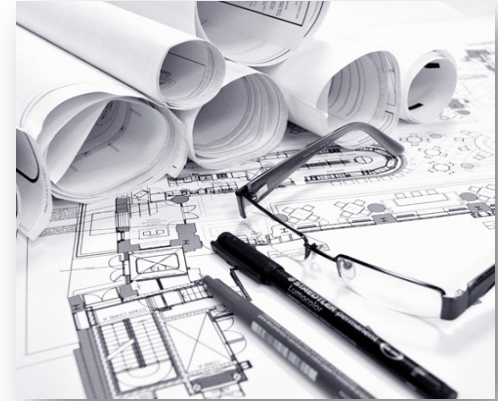


Converted Workload to Key

Spaces



Aged Key Space Inventory
and Gap Analysis



Future
Area Requirements

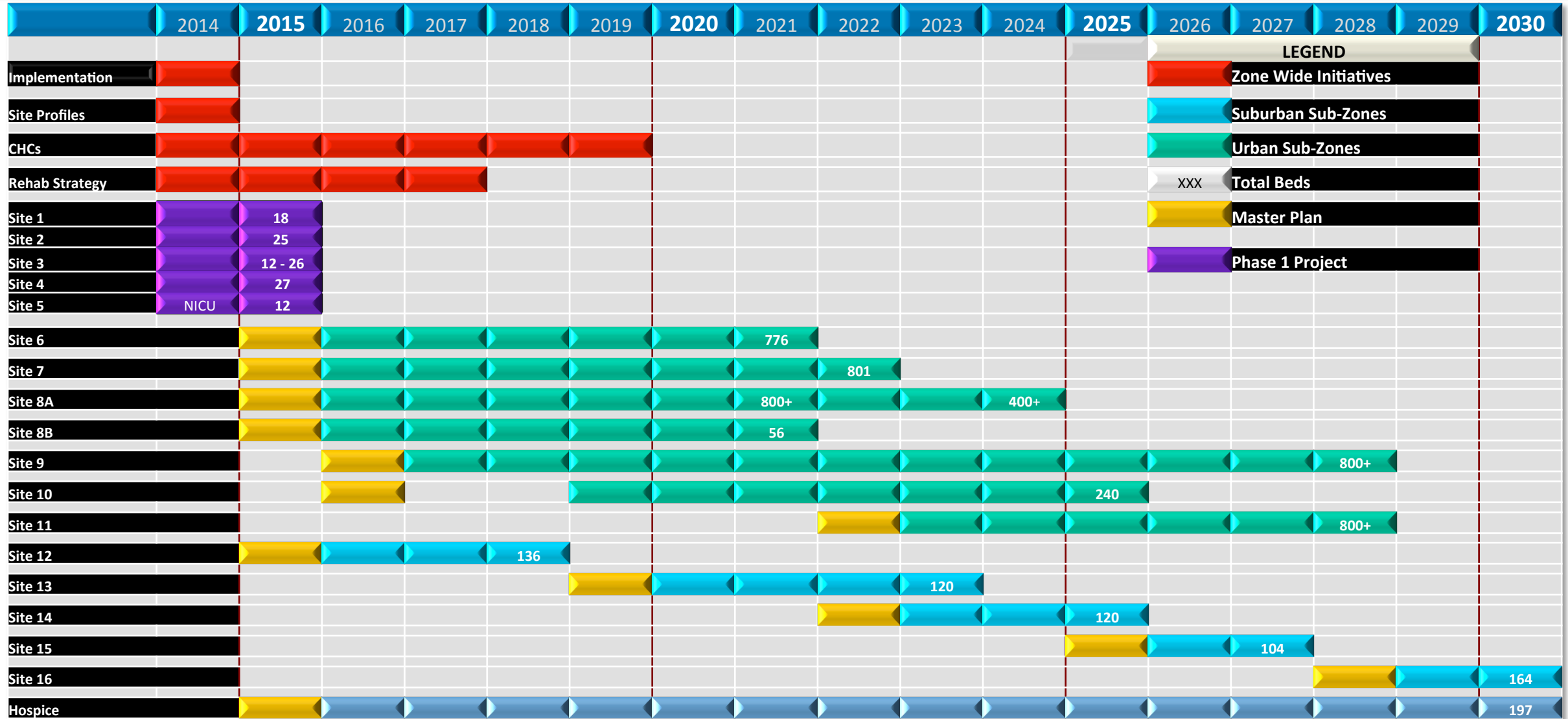
Projected Space Needs in 2030

Type of Space		2020 Gap	2025 Gap	2030 Gap
BEDS	Inpatient Beds	-1093	-1700	-2264
	Critical Care Beds	-173	-199	-268
	Rehabilitation Beds	-346	-483	-647
	NICU Beds	-56	-66	-76
	Forensic Psychiatry Beds	-18	-25	-33
	Sub-Total: Inpatient Beds	-1686	-2473	-3288
	LDR's	-23	-20	-21
PROCEDURE-BASED SPACES	Hemodialysis Stations: Inpatient	10	7	4
	Hemodialysis Stations: Outpatient	-31	-48	-67
	Sub-Total: Hemo Stations	-21	-41	-63
	Endoscopy Rooms – Hospital	12	12	11
	Endoscopy Rooms – Community	-16	-18	-20
	Cystoscopy Rooms	-4	-5	-5
	Bronchoscopy Rooms	-1	-1	-2
	Sub-Total: Scope Spaces	-9	-12	-16
	Operating Room: General	-24.5	-30.5	-42.5
	Operating Room: Ophthalmology	2	2	2
	Operating Room: CV	1	1	-1
	Operating Room: iMRI	0	0	0
	Operating Room: Hybrid	-2	-2	-2
	Operating Room: Gyne	-5	-5	-6
	Operating Room - C-Section only	-4	-4	-4
	Sub-Total: Operating Rooms	-33	-39	-54
	PARR/Recovery Room Stretchers	-151	-165	-195
Day Surgery Stretchers	43	39	29	

RESULTS (part 3)

EVIDENCE-INFORMED CAPITAL PLANNING

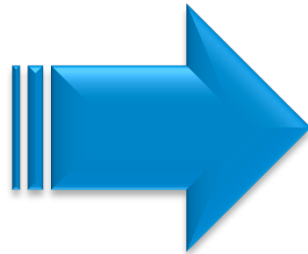
2030 Investment Strategy - Preliminary



Site Profiles & Master Plans

Site Profiles

Role statements were developed for each facility, assigning responsibility for 2030 programs, services and workloads



Campus-Wide Master Plans

- Master Plans were informed by the 2030 Service Plans and the Site Profiles.
- Master Planning was conducted at three campuses – a total of 9 facilities

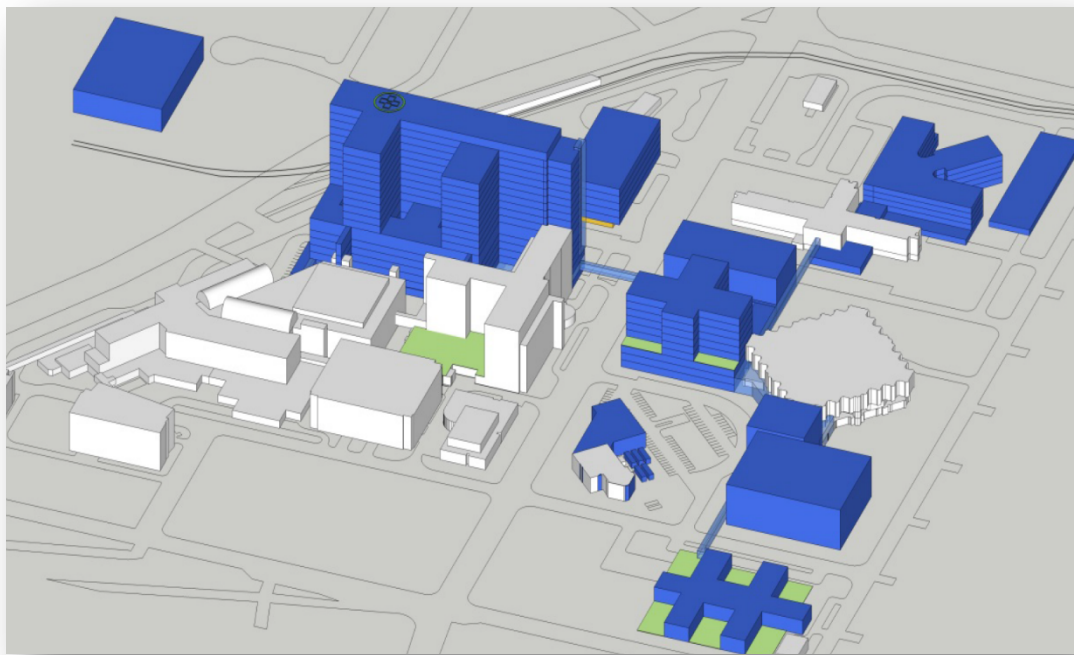


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Master Plan #1

419,000 BGSM
230+ components
17 year implementation plan



Royal Alexandra Hospital

- Large inner city hospital & academic health centre
- 1174 inpatient beds and five 23-Hour Units
- 95,000 Emergency Department visits, 50,000 surgical procedures, 7,500 births with an emphasis on high-risk deliveries, 625,000 outpatient visits

Glenrose Rehabilitation Hospital

- Free-standing tertiary rehabilitation hospital
- 325 inpatient beds
- Very large outpatient/ambulatory service
- Major emphasis on the innovative use of technology

CapitalCare Norwood

- Post-acute, sub-acute and specialized continuing care programs
- 350 residential beds, 2 day programs for high-risk seniors
- Unique Zone-wide and province-wide services

LESSONS LEARNED

1. The scope should include all clinical services, support services and sectors.
2. Data, data, data.... (and credible population projections)
3. Client project managers with in-depth knowledge, interpersonal and political skills, and a great work ethic.
4. Meaningful engagement of stakeholders really works...don't hold back here. But with all these people involved you need (1) time - lots of it; and (2) extensive, committed project management from the consulting team & the client.
5. Need government engagement right from the beginning so they can 'come to the party' and begin to think about the implications for government planning and funding practices.
6. Should have client reps who can become expert at using & maintaining planning tools.
7. Must have direct, frequent access to the most senior executives in the organization.

THANK YOU



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