

JPS Strategic Facilities Utilization Plan

2010-2011

**BOKAPowell** 

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## **EXECUTIVE SUMMARY & VISION**

## JPS HEALTH NETWORK FACILITIES UTILIZATION PLAN

As part of the John Peter Smith Health Network (JPS) commitment to deliver health care services that meet the current and future medical needs of the residents of Tarrant County, JPS commissioned a Facilities Utilization Assessment and Plan. The goal of the plan is to ensure that JPS continues to provide the value expected by both the JPS patient and the Tarrant County community taxpayer.

#### What is the plan and what does it do?

The plan evaluates and proposes a strategic vision for two major components of the JPS network; the main JPS hospital campus and the community services located throughout Tarrant County.

The plan provides a **foundation** from which JPS can assess its main campus in terms of **maximizing efficiency, utilization, and impact** on the surrounding neighborhoods in a **fiscally responsible** manner. It addresses immediate needs and looks into JPS future to recommend a comprehensive strategy for utilizing facilities, maximizing operational capacities and organizing services across the network.

The plan also proposes an approach to maximize the value of the JPS campus as an economic engine in the South Main community with recommendations for the development of an urban community surrounding th main campus.

The strategic facilities utilization plan provides benchmarks that allow JPS to continually monitor its progress and

reevaluate its priorities as appropriate. It provides a flexible pathway for growth, including identification of short term and long term priorities, and phased implementation.

#### Why do the plan now?

- The JPS Network, the 4th largest public health system in Texas, has never visualized facility strategy this way, and must plan strategically for its future to continue to be a good steward to the community.
- The 2010 Community Medical Needs Assessment (CNA), an evaluation of the health status and health services utilization in Tarrant County, pointed to specific needs.
- Existing and anticipated facility and operational network challenges need to be addressed. These challenges significantly affect the value demonstrated by JPS for the patient and taxpayer. Emerging healthcare trends and legislation also continue to force JPS to reevaluate its needs and processes.
- In order for JPS to sustain its mission and accommodate its growing target population in Tarrant County, as well as any future extension of its target population, it will be necessary to improve processes and optimize capacities to support the future patient base.

The filter diagram represents the JPS patient care network in its current state. Varying levels of care and patient acuities represent a range of costs to the system. Today, many different acuity levels can be found in any given location in the system (e.g. primary care patient in the ED), which means that there are a high number of "low cost" or low acuity patients seeking care unnecessarily in a high cost environment.

## PLAN GOAL

JPS Strategic Facilities Utilization Plan

Assess JPS campuses,
Rationalize operations,
Maximize quality and clinical efficiency,
Improve utilization and capacity,
Develop uniform brand for facilities, and
Contemplate product line growth –
In order for JPS to sustain its mission.
Provide economic, operational and quality benefits,
and Support its surrounding neighbors.

## JPS MISSION / VISION / VALUES

## JPS Mission

To improve the health status of the families and individuals in the communities we serve.

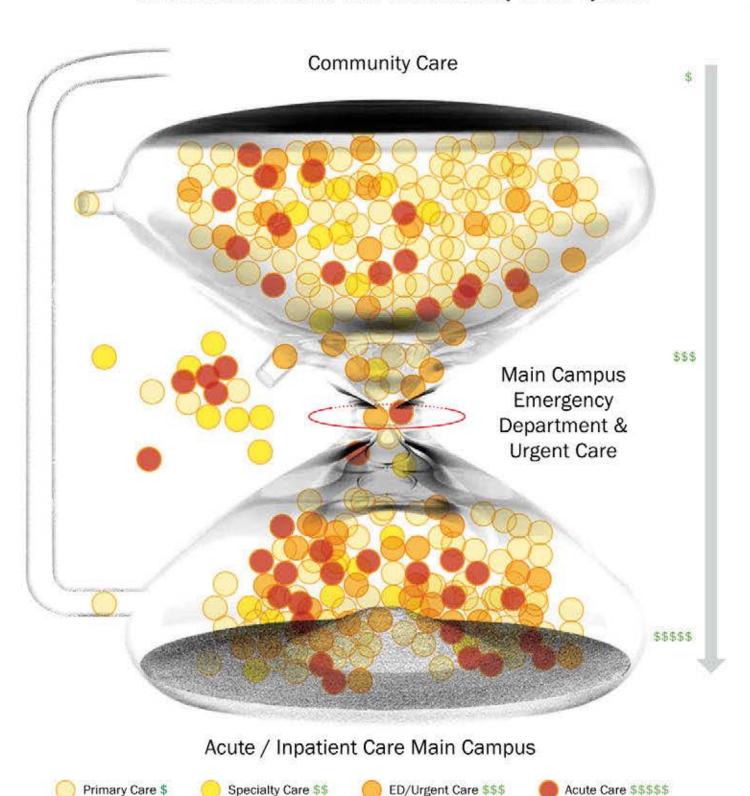
#### PS Vision

JPS will be recognized for its commitment to excellence in health care and medical education, delivered with sensitivity and compassion, on time, anytime, to anyone, in Tarrant County.

#### JPS Values

People/Quality/Integrity/Accountability/Caring & Compassion/Cultural Diversity/Leadership

## Uncoordinated Patient Care is More Costly to the System



## NETWORK CHALLENGES

The network assessment identified the following key themes:

- Access to Services Capacity of Primary and Specialty Clinics Circulation & wayfinding on and around main campus
- Disease Management Rapid medical assessment Wellness & patient education
- Economic Barriers Expanding indigent population Public funds & changing legislation
- User Satisfaction Concern for patient and their future choice Employee and physician satifaction and loyalty
- Community Stewardship Value to the Taxpayer Mission fulfillment Operational responsibility
- Quality of Resources to Provide Care Accommodate patient care with adequate resources Best practices & future centers of excellence
- Academic Program Excellence Resident, teaching and conference support Clinical simulation as a best practice
- Productivity Challenges Limited capacities due to facility and operational inefficiencies Lack of standardization
- Organizational Silos Lack of coordination and communication across services Case management limitations
- Tarrant County Growth County will add 168,000 people from 2010 to 2015 Age 65-plus growth at 29%
- Public Transportation throughout the County

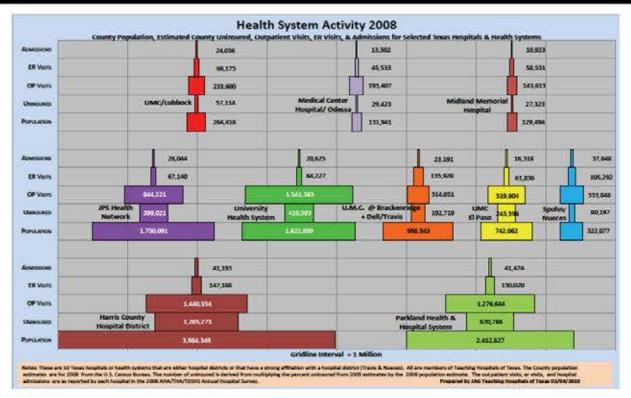
As a result of these issues, JPS ability to continually improve the quality and efficiency of care is limited, access to timely and appropriate care decreases, patients as a whole are sicker and a greater number end up in an acute care environment, which results in more expensive care.

#### IMPACT OF JPS IN ITS COMMUNITIES

Despite JPS challenges, it has a positive impact at its main campus and in its communities throughout Tarrant County. The impact does not stop at health care; JPS acts as an economic engine in the communities it serves and especially at the main campus in South Fort Worth. As a result of its rich history and strong foundation, JPS has the capacity to continue to provide quality, cutting edge healthcare through best practices while being a catalyst for the growth of Tarrant County communities. JPS strong foundation includes:

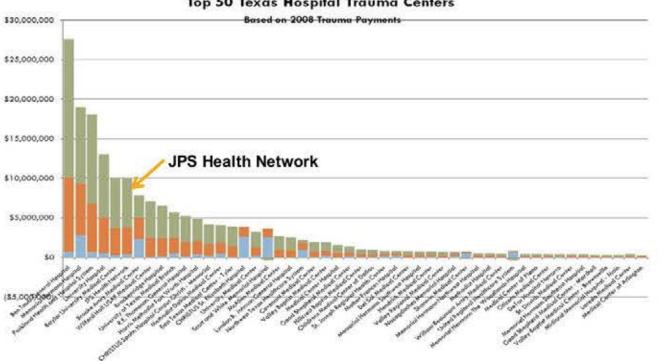
- JPS is the Fourth (4th) Largest Public Health System in
- One of Tarrant County's Largest Employers and is an Employment Leader in Salaries and Benefits
- The Sixth (6th) Largest Trauma Center in Texas, and only one in Tarrant County serving areas to the west of the metroplex.
- One of the Largest Family Medicine Residency Programs in the Country
- A Long Term Teaching Relationship with Physician Programs at Neighbor University University of North Texas Health Science Center
- A Large Asset Base in the Community
  - \$356 million is the value of JPS-owned buildings
- The Potential for Creating a Redevelopment Area surrounding its Main Campus:
  - 1.12 million patient encounters per year
  - 27,000 total admissions
  - 1.08 million outpatient visits: 722,00 Health Center Visits & 82,000 ER visits
  - Provides Extensive Medical Services: Provides \$409 million in Uncompensated Care
  - Receives \$281 million in Ad Valorem tax revenue
- Campus Accessibility / Visibility
  - Fort Worth's Main Street Runs through the Center of the Main Campus
  - The Campus is bordered on the East by I-35, on the North by Magnolia, and on the West by Hemphill.

## JPS IS THE 4TH LARGEST PUBLIC HEALTH SYSTEM IN TEXAS



## JPS HAS THE 6TH LARGEST TRAUMA CENTER IN TEXAS

## Top 50 Texas Hospital Trauma Centers



## PRIORITY RECOMMENDATIONS & PLAN PHASING

Priority recommendations were developed based on how strongly they met one or more of the following criteria. As a result, these criteria serve as the basis for the direction, recommendations, progression and phasing of the Plan.

## Plan Criteria

quality	improvements / maintain functionality
efficiency	optimize operational capacities & growth
environment	improve image, branding & satisfaction
stewardship	manage resources & sustainability

## PLAN PHASING

- Phase One: Efficient Core Services
- One Contiguous Main Campus for the Network
- Regional Community Strategy System Prototype
- Phase Two: Accommodate Growth
  - Improve Patient Health, Reduce Main Campus
     Volume and Increase Cost Savings at the Clinics
- Phase Three: District & County Coordination
  - Campus & District Development
  - Expansion of Community Care Strategy



## PRIORITY RECOMMENDATIONS

The priority recommendations can be categorized into seven (7) major network planning initiatives. Below is a brief summary of the major plan components that fall under each.

#### Community Care

Regional Medical Home strategy Coordinate referrals

#### Emergency Department (ED) & Campus Clinics

ED and Urgent Care shared triage Clinic reorganization

#### Invasive Services

Capacity and separation of major & minor procedures

#### Inpatient Beds

Bed reorganization strategy Case management

#### **Academic Services**

Academic zoning Teaching environments

## Image & Circulation

Coordinated Entrances

Patient Movement & Operational Zoning

## Campus Development

Consolidation of main campus footprint

#### THE RESULT

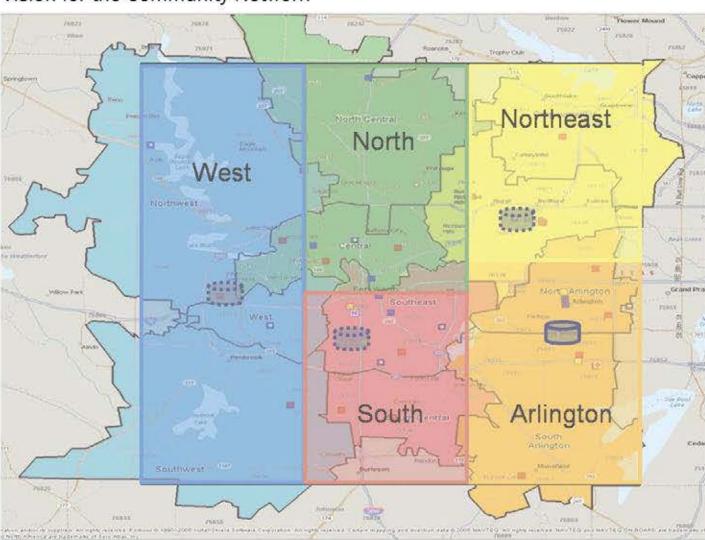
- Value to the JPS Patient: Higher Quality of Care and Greater Capacity for Patient Care in the Future
- Value to the JPS Taxpayer/Community: Increased System Efficiency & Less Costly Care Overall

#### THE PLAN: NETWORK VISION

JPS will manage the health of its population providing quality health care efficiently, in a patient and family- centered Medical Home model, building upon its existing volume & service base. Strategically located regional care hubs will be focused on providing primary care in the communities where patients live, supported by and coordinated with a referral network of specialty services, urgent care and school based centers.

Long term regional implementation of the community strategy is based on the stratification of Tarrant County into five relatively homogenous regions that were identified based on target population, patient origin and patient access. The regions are Arlington, West, South, North, and Northeast.

## Vision for the Community Network



#### THE PLAN: MAIN CAMPUS VISION

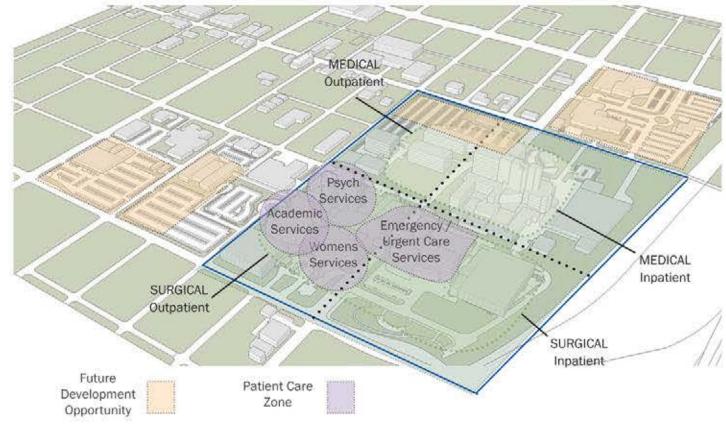
The plan envisions the center of the JPS Health Network as one contiguous, coordinated main campus that serves as an acute health care hub for all of Tarrant County. The plan recommends that JPS provide care in the most appropriate locations, keeping non-emergent, non-acute care in the Medical Home and community clinics promoting patient education, wellness and disease management.

The goal for the main campus is to first create a connection between existing facilities that mitigates long walking distances, separation and duplication of services. Main components of the plan include operational efficiencies and optimizing capacity for the ED/Urgent Care, Specialty Clinics, Family Medicine Clinic, Inpatient Beds, Surgery, Endoscopy, Cardiovascular services, Academic programs and all support components. Improved circulation, shorter walking distances, and patient satisfaction will come from renovation of the lobby and front entrance, and consolidation of facilities outside of the long term main campus footprint.

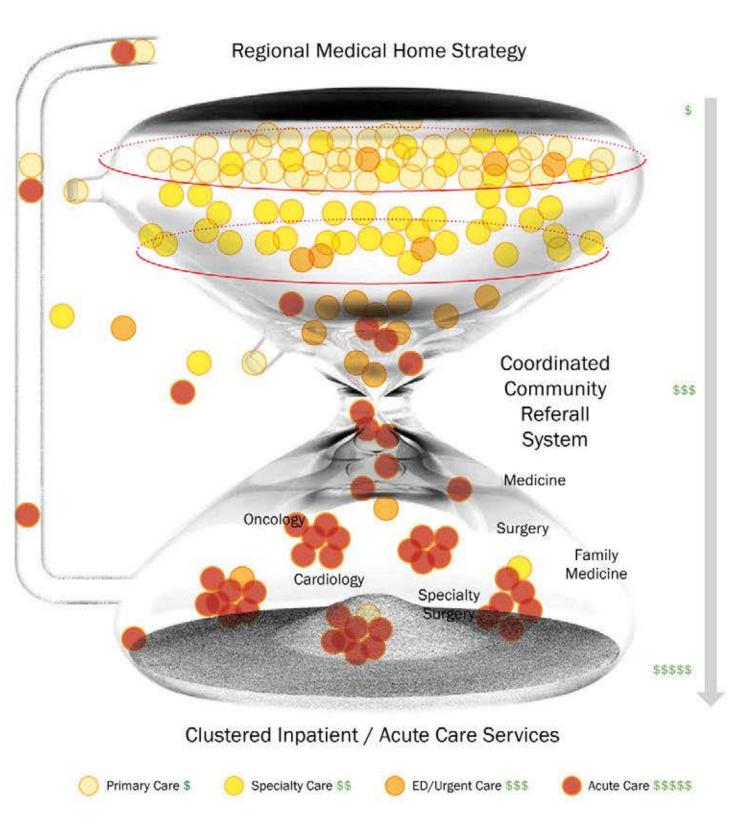
The recommended facility connection, operational improvements and facility renovations will allow for necessary departmental adjacencies, improved campus circulation, operational efficiencies, and increased patient, employee and physician satisfaction and safety. Long term, and as long as appropriate benchmarks are met, a new bed tower adjacent to the Pavilion will allow for the elimination of unnecessary costly facilities outside of the main campus footprint, necessary growth, departmental adjacencies, and complete consolidation of services into a tightly organized contiguous campus.

> This filter diagram represents the JPS patient care network once the plan is implemented and the JPS vision is realized. Varying levels of care and patient acuities represent a range of costs to the system. Patients are filtered appropriately throughout the system so they receive care in the most appropriate location, with the opportunity to receive the highest quality care resulting ultimately in reduced costs to JPS and the taxpayer.

## Vision for the Main Campus



## Care is Directed through a Coordinated Network



## STRATEGIC FACILITIES UTILIZATION PLANNING PROCESS

The strategic facilities utilization planning process for JPS Health Network was a collaborative, evidence-based process. The strategic process builds on an existing knowledge base, the strategic foundation, then looks into the future to develop a vision for a comprehensive network-wide plan, recommendations, and a tactical, phase-based approach.

#### TEAM

The knowledge base developed by the team serves as a strategic foundation for the plan, and involves the culmination of information, as well as the benchmarking and analysis of the information as appropriate. Information gathered includes existing and prospective insight taken from stakeholder interviews, financial and operational data, campus contectual information, facilities data, and infrastructure assessment.

Plannir	ig 1	Team
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BOKA Powell formed a well-rounded team to complete the facilities utilization process for JPS. The team allowed for expert representation through each phase of the process.

- BOKA Powell led the process on both the strategic and facilities planning sides.
- McAfee 3 supported BOKA Powell under both the strategic and facilities umbrella on information gathering, issues identification, recommendations, and facility drawings.



вокл	Facilities					
JP	s					
вока	A Powell					
McAfee 3	Consulting					
IDI	MEP Consulting					
MESA Design Group	Access by Design					
Smith Hager Bajo	Jaster-Quintanilla					

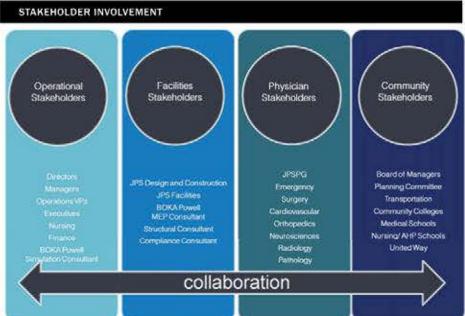
- Smith Hager Bajo completed Simulation Modeling Studies for Womens Services, NICU and the Emergency Department, and was a key partner in developing the strategic foundation and recommendations for the plan.
- MESA Design and IDI, Innovative Development, Inc., collaborated on information gathering, opportunities identification and recommendations related to both the facilities utilization plan and real estate and land development opportunities.
- MEP Consulting, Access by Design and Jaster Quintanilla supported the facilities assessment by conducting assessments of JPS facilities and infrastructure, and consulting on facilities issues that arose throughout the project.

## Stakeholder Involvement

Acquiring qualitative insight through stakeholder involvement is a critical first step in the planning process. Not only do stakeholders offer input that plays a key role in forming the strategic foundation for the plan, but they also become owners of the process and plan through their involvement. Ultimately, the stakeholders should take responsibility for implementation of plan recommendations and key operational drivers that are discussed during the process. The degree of stakeholder involvement ultimately determines the plan outcome and its success.

There are four major stakeholder groups that are part of the process. BOKA Powell conducted more than 100 interviews with stakeholders across these four categories and across approximately 40 service lines and hospital departments.

- Operational Stakeholders
- Facilities Stakeholders
- Physician Stakeholders
- Community Stakeholders



## ISSUES IDENTIFICATION

Issues and operational bottlenecks are identified based on an aggregate of interview findings, facility tours, facility and key planning unit assessments and future growth influencers. The following key themes were identified for the overall network and an explanation of the sources of this information follow.

- Transportation
  - Public transportation throughout the county
- Access to Services
  - Clinical resource availability
  - Circulation & ease of wayfinding to services
- Disease management
  - Rapid medical assessment
  - Wellness & Patient Education
- User satisfaction
  - Patient satisfaction and increasing ability to choose
  - Employee, physician satifaction and loyalty
- Community stewardship
  - Mission fulfillment
  - Operational responsibility
- Quality of Resources to Provide Care

- Accommodate patient care with adequate resources
- Best practices & future centers of excellence
- Productivity challenges
  - Limited capacities due to inefficiencies
  - Lack of standardization
- Organizational silos
  - Lack of coordination/communication across services
  - Case management
- Tarrant County population growth
- From 2010 to 2015, 168,000 additional people & 57,000 new households will be in Tarrant County
- Age 65-plus growth will occur at 29%
- Academic program excellence
  - Resident and teaching, conference support
  - Clinical simulation needs
- Economic Barriers
  - County hospital serving an indigent population
  - Public funds & changing legislation

## JPS INTERVIEWEES

## 13 Executives/ Operational VPs

- · Dr. Gary Floyd
- · Regina Berman
- David Salsberry
- Bill Whitman
- · Robert Earley
- · Kathleen Whelan
- Nora Frasier
- Rick Stevens
- · Charles Williams
- · Jamey Pennington
- · Dr. Fowler
- · Scott Rule
- · Dr. Haynes

## 16 Physician Interviews

- Ob/ Gyn
- · NICU/ Peds
- Emergency
- Radiology
- Surgery
- · Urgent Care
- Trauma
- · Family Medicine
- · Pathology
- Psych
- Cardiovascular

## 23 Clinical Directors/ Managers

- · Obstetrics/ OB Triage
- NICU
- Emergency Department
- Cancer
- SBCs
- Surgery
- · JPSPG · Women's Services
- Radiology
- · ICU
- Trauma Services
- · Clinics
- Urgent Care

- Dietary
- Finance
- Security
- · Patient Transport
- Transportation · JPSPG
- · Lab
- · Purchasing/ Receiving
- Human Resources
- Organizational Development
- Pharmacy IP/OP
- · Behavioral Health Academic Affairs

- · The "T"
- Premier
- Developer
- · Rev. Emerson



Hallway Bed: Quality & Efficiency Opportunity



## Interviews

Interviews were conducted throughout the organization. More than thirty percent (30%) of interviews were with clinical directors and managers. Twenty-three percent (23%) of interviews were with physicians, nineteen percent (19%) were with operational VP's and executives, eighteen percent (18%) were with other departmental directors and managers, and ten percent (10%) were with community stakeholders.



An accurate assessment of existing conditions must include visual assessment of facilities, operations and activity. The JPS BOKA Powell Team made many visits over a period of 12 months to the JPS main campus, surrounding areas, and community clinics to evaluate campus operations and facilities. Some of the most significant plan findings came out of these visits.



Main Campus Urgent Care waiting: Efficiency Opportunity



Main Campus OP Pharmacy: Productivity Challenges



Entrance / Main Lobby: User Satisfaction



Main Street separation of JPS facilities: Organizational Silos



MetroWest Office Building: Community Stewardship Opportunity



The T Bus Stop on Main Street: Access to Services

#### GLOBAL & DEPARTMENTAL INFLUENCERS

Throughout the interview and data gathering process, future influencers related to service lines, departments and key planning units across the JPS network were documented and evaluated. Estimates of future needs for each of the key planning units are formulated based on our findings.

#### Global Influencers

At the time this study was completed, following were the major factors that had an overall impact on market volumes and across the JPS Network. These are largely external to JPS and, as a result, are outside of JPS control.

- Tarrant County Population Growth & Population Trends
- Changing (Lower) Reimbursement
- Start of Medicaid RACs (Recovery Audit Contractor)
- Increase in Uncompensated Care
- The Fate of Healthcare Reform
- Federal Political Gridlock = Less Spending
- State Reduction in Medicaid Reimbusement
- Mandated IT Spending

#### Departmental Influencers

These have a more direct impact on specific departmental volumes. They are both external and internal to the organization and JPS has varying levels of control over each.

- Strategic Emphasis
- Physician Recruitment/ Clinical Workforce Availability
- Emergency Department Volumes
- Success of the Community-Based Medical Home
- Operational Efficiencies / Facility Capacity
- Adoption of Centering
- Technology Adoption / Effects of EMR Implementation

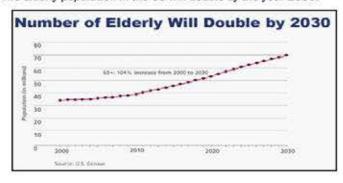
Operational and volume scenarios are formulated based on the "tilt" factor. This means that each influencer's effect on the baseline will "tilt" the growth rate either to the left or to the right (negatively or positively). The relative impact of each influencer must also be determined. The degree at which the baseline "tilts" depends on the influencer's relative impact on the key planning unit compared to other influencers.

#### Volume Scenarios

From this process, volume scenarios for the future evolve. Scenarios and their operational implications are reviewed with operational stakeholders. Volume scenarios become inputs in the utilization model to determine future facility requirements.

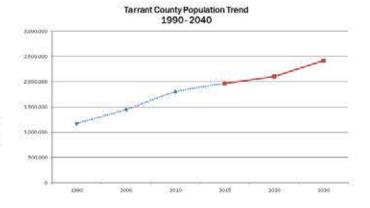
#### TRENDS: GLOBAL INFLUENCERS

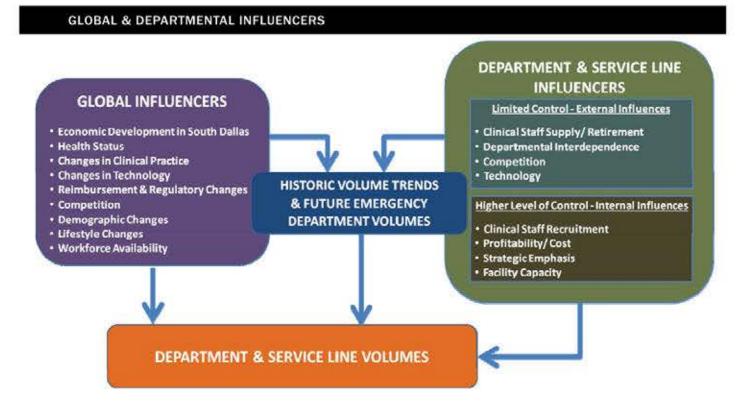
The elderly population in the US will double by the year 2030.



Between 2010 and 2015, Tarrant County will see significant growth:

168,000 additional people 57,000 new households Age 65+ growth more than 29%





#### **KEY PLANNING UNITS**

Key planning units are calculated based on operational data, facilities input and interview findings. Assumptions about future global and departmental influencers are made to formulate and support a plan for growth, and key planning units for the future are established as a basis for facility sizing.

Data is gathered based on how patients utilize the JPS facility either as an inpatient or outpatient, and the department and service line that is required for their care. Major departments that are central to the functioning of the hospital, and are ultimately integral to the planning of the facility as a whole, are identified.

#### **Utilization Modeling**

Utilization models are developed for each patient- and space-related department function to obtain a sufficient understanding of the existing operational details and key operational drivers. Many times, the model reveals process bottlenecks and issues inherent in the patient care process.

- Inpatient Bed Requirements
  - Volume is measured in days and discharges
  - Key determinants of bed need are percent (%) utilization and patient length of stay (days)
- Diagnostic & Treatment Requirements
  - Volume is measured in visits, exams or procedures
  - Key determinants of need are peak utilization and decreased utilization e.g. due to DNKA rates.

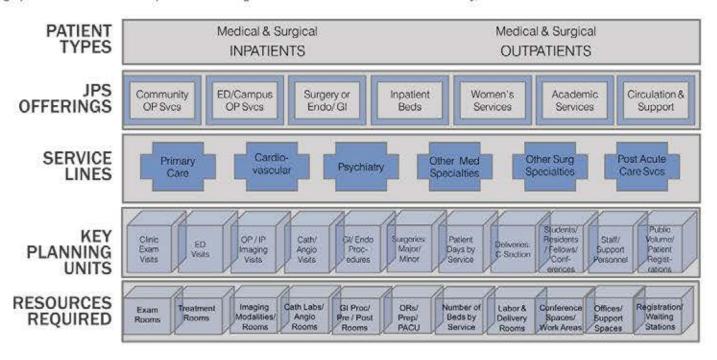
The existing model is compared to benchmarks for utilization, patient visits, length of stay, treatment time, etc., and operational targets and capacities are established. The model can also be utilized as a departmental tool to test scenarios for operational improvements.

## Future Growth Requirements

Once the existing model is built, modifications must be made for future scenarios that include operational improvements, facilities utilization plan implications and other future global and departmental influencers on volume and facility needs. Capacity is calculated for departments based on current utilization and expected future utilization scenarios.

#### KEY PLANNING UNIT DEVELOPMENT

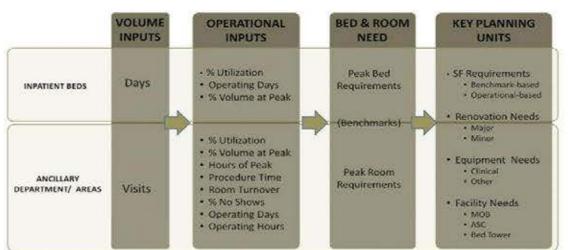
The process below describes how hospital volumes are categorized and filtered into key planning units for strategic facility planning. The graphic below describes how patients are categorized and look at data to determine facility, service line and resource needs.



## BED AND ROOM NEED CALCULATIONS

The graphic here illustrates the process for calculating inpatient bed needs and diagnostic & treatment room needs. The basis of inpatient bed need calculations are patient days. The basis of diagnostic, treatment and ancillary departmental volumes are visits.

A model that emulates existing operations is created first. Operational inputs are compared to established regional benchmarks and operational bottlenecks are identified. A balance between regional benchmarks and organizational realities creates new operational targets. Operational inputs are modified accordingly, influencers are applied to determine projected volumes, and key planning units are developed from the model.

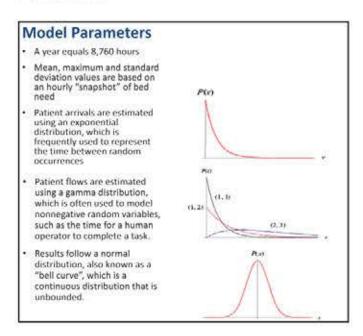


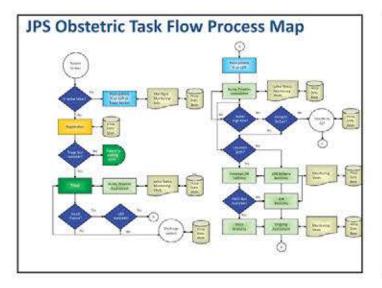
#### Discrete Event Simulation Modeling

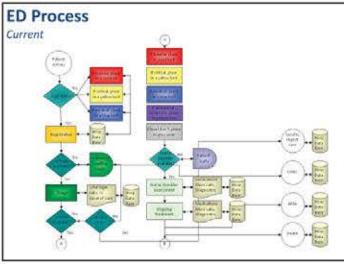
Another method of process evaluation is discrete event simulation modeling, which provides the most added value (beyond linear operational modeling) when applied to hospital departments with randomized operations. Discrete event simulation modeling:

- Offers unique computerized simulation modeling tools and a proven method for determining the appropriate number, type, and mix of beds or rooms for inpatient and outpatient services.
- Advances beyond the mathematical model and ratio formulas used to analyze bed needs and determines the impact of practice changes on both bed need and staffing requirements.
- Is based on classic task flow diagrams and analyzes the flow of patients and the processes they experience as they move through care delivery.
- Can determine resource requirements (staff and facilities)
- Evaluates and tests service delivery models/ processes prior to implementation
- Understand the effect of new facilities, before construction,

The assessment includes data collection and discussion of the various types of what-if scenarios that should be run. The final product of the simulation process is a written report that describes the assumptions, results and potential implications of those results.







		oday - Exit			oday - Rev			uture - Rev	250 TO 100 TO 10	100000000000000000000000000000000000000	pacity To	day lures/Visits)	Plant (Annual I	ned Capa Procedures		945000E00	nputs - ons Today	Key Ir Operation	nputs - ns Revised	к	ey Inputs - O	perations Fu	ture		Growth	h Scenarios	
	Current Annual Procedures	Current Visits per Room	Current Room Need + 2 Dedicated ORs: CV/Frauma	Current Annual Procedures	Current Visits per Room	Room Need with Operational Changes + 2 Dedicated ORs: CV/Trauma		Projected Visits/ Room	+ 2 Dedicated ORs: CV/Trauma	Current Total Capacity	Current Capacity per Room	Existing Rooms - 7 Dedicated Oks CV/Trauma	Planned Cas Capacity	Planned	SEUP Planned Rooms + 2 Dedicated ORs CV/Trauma	No Show Rate (DNKA) or LWBS	Calculated Utilization Rate	No Show Rate	Expected Utilization Rate	Projected % Growth	#1 influencer	#2 Influencer	#3 Influencer	Historic Annual Growth	Conservative Growth	Moderate Growth	Aggressive Growth
Surgery	9,495		16	9,495	/	13	12,066		17	11,560		10	12,253		16	0											-
Inpatient Surgery  Outpatient Surgery	5,570 3,925		270		10000			835 620	8.4	11,560	612 544	10	10,021	835 558		28%	50% 85%	20%	50% 75%	4.7% 5.3%	CV Program Surg Clinic Growth	ED Growth DSHA growth	Improved Ops ED Growth	4.7% 7.9%	2.0%	4.7% 5.3%	5.8% 9.9%
Endoscopy												+7 Dedicates DRL: Trayme / CV			+) Dedicated ORs: Traces / CV				2								
Endoscopy	6,272	1,755	3.6	6,272	1,271	4.9	9,045	1,271	7.1	7,022	1,755	4	5,285	1,057	5	30%	100%	10%	75%	7.6%	Capacity/ Improved Ops	OSHA growth	Demo/ Clinic growth	12.7%	3.0%	7.6%	15.9%
Emergency Department/ Urgent Care																		1									
Emergent ED	34,944	781	45	34,944	529	66	44,598	676	66	50,010	781	64	44,598	676	66	8.8%	30%-76%			5.0%	Medical Home	Demo/ Capacity Growth	Legislation	2.5%	1.0%	5.0%	8.0%
ED (Fast Track Chairs) Urgent Care	37,243 41,306			307311300	3,724 1,589		48,336 53,610	2.832	36	22,336 41,153	1,117		101,946	2,832	36	4.8%	30%-76%			5.4%	Medical Home	Legislation	Limited Capacity	7.7% 14.7%	2.0%	5.4%	6.0%
Imaging - Main																-						5.					
MRI	11,187	5.947	1.9	11.187	5,594	. 2	12.351	5,594	2.2	11,894	5,947	2	11.894	5,947	2	5% to 22%	85%	10%	85%	2.0%	DSHA Focus	Medical Home	Umited Capacity	7.8%	1.0%	2.0%	3.0%
Nuclear Medicine	5,633	45000	2.3	5,633	2,817	2	5,633	2,817	2.0	1000000	2,441	2	4,882	2,441	2	5% to 20%	85%	10%	85%	0.0%	DSHA Focus	Technology Trend	Limited Capacity	5.8%	0.0%	1.0%	1.5%
CT Scan	83,934	17,208	4.9	83,934	16,787	5	92,926	16,787	5.5	86,040	17,208	35	86,040	17,208	5	5% to 18%	90%	10%	85%	2.1%	Portable Capacity	OP Clinic Capacity	Medical Home	6.9%	2.0%	2:1%	3.0%
Diagnostic X-Ray (Main)	93,527	16,997	5.5	93,527	15,588	6	104,962	15,588	6.7	84,985	16,997	5	101,982	16,997	6	5% to 21%	90%	10%	90%	2.3%	Medical Home	ED Capacity	Demos	5.0%	2.0%	2.3%	3.0%
Diagnostic X-Ray (DPX)	22,947	8,288	2.8	22,947	7,649	3	29,287	7,649	3.8	16,575	8,288	2	24,863	8,288	3		90%	3%	90%	5.0%	Ortho Clinic Capacity	ED Capacity	Medical Home	5.0%	2.0%	3.5%	5.0%
Ultrasound	23.153	3,932	5.9	23 153	3.859	12	26.841	3,859	7.0	15,729	3,932	_ a _ i	23.594	3,932	1 2	5% to 20%	90%	10%	90%	3.0%	Medical Home	Contract Land	Demos	22.2%	2.0%	3.0%	4.0%

		oday - Exi:			oday - Rev		19463000000000000000000000000000000000000	ature - Revi	Part of the State of the		apacity To	dures/ Visits)	175000	nned Capa of Procedures	COLUMN TO THE REAL PROPERTY.	3250 354540	inputs - ons Today	100	nputs - ns Revised	K	ey Inputs - O	perations Fu	ture	
	Discharges	Days	Bed Need Today	Discharges	Revised Days	Bed Need Today	Projected Discharges	Projected Days	Bed Need Today	Disharges	Days	Beds* (estimated by type)	Discharges	Days	Beds	ALO5	Calculated Utilization Rate	Reduction in ALOS	Expected Utilization Rate	% Gruwth	#1 Influencer	#2 Influencer	#3 Influencer	Refer to Main Campus -
npatient Beds	28,107	141,552	513	28,107	137,110	498	30,913	152,136	551	28,218	141,730	513	31,039	153,302	\$56	10000000						Limited	Community	Priority Recommendations
иіси	351	3,245	14	351	3,245	13.7	399	3,689	15.6	462	4,271	18	525	4,855	20.5	9.2	65%		65%	2.6%	Demo Growth	Capacity	Strategy	Inpatient Beds for details
Progressive Care Medicine	2,773	13,483	746	2,773	12,651	43.3	3,153	14 384	49.3	2,773	14,600	50	3,153	14,384	49.3	4.9	80%	0.3	80%	2,6%	Demo Growth	Limited Capacity	Community Strategy	
Aedical Beds	6,470	31,461	108	34.00	Bushous	101.1	2000	2000	113.0	1240204	1000000	100000	7,231		113.0	4.9		0.3	-555000	2.3%	Demo Growth	Limited Capacity	Community Strategy	
ncu	351	3,245	14	351	3,245	13.7	399	3,689	15.6	351	4,271	18	399	3,689	15.6	9.2	65%		65%	2.6%	CV Program	Limited Capacity	Community Strategy	
rogressive Care Surgery	787	6,400	22	787	6,164	21.1	894	7,008	24.0	787	2,500	25	894	7,008	24.0	8.1	80%	0.3	80%	2,6%	CV Program	Limited Capacity	Community Strategy	
iurgical Beds	3,146	25,598	88	3,146	24,654	84.4	079395	28,031	96.0	3,146	21,024	72	3,577	28,031	96.0	8.1	80%	0.3	80%	2.6%	CV Program	Limited Capacity	Community Strategy	
risoners	1,026	5,906	20	1,026	5,598	19.2	1,127	6,151	21.1	1,026	4,672	16	1,127	6,151	21.1	5.8	80%	0.3	80%	1.9%	Demo Growth			
ehavioral flealth	3,815	19,406	n	3,815	19,406	70.9	4,191	21,321	77.9	3,815	19,710	72	4,191	21,321	77.9	5.1	75%	12	75%	1.9%		Limited Capacity	Community Strategy	
killed Norsing	301	5,068	15	301	5,068	15.4	342	5,762	17.5	301	5,256	16	342	5,762	17.5	16.8	90%		90%	2.6%		Limited Capacity		
Iomens	6,959	16,577	70	6,959	16,577	69.9	7,350	17,509	73.8	6,959	14,710	62	7,350	17,509	73.8	2.4	65%		65%	1.196	Limited Capacity	Community Strategy	Demo Growth	
rnecology	604	1,839	6	604	1,658	5.7	638	1,751	6.0	604	1,752		638	1,751	6.0	3.0	80%	0.3	80%	1.1%	Limited Capacity	Community Strategy	Demo Growth	
cu	1,524	9,324	39	1,524	9,324	39.3	1,610	9,848	41.5	1,524	8,541	36	1,610	9,848	41.5	6.1	65%	133	65%	1.1%	Limited Capacity	Community Strategy	Demo Growth	
ewborns	5,177	9.249	39	528500	9,249	1000	15000	10000	41.2	1010104	7		5.468	9,769	41.2	1.8	2000		65%	1.1%	Limited Capacity	Community	Demo Growth	

#### **OPPORTUNITIES**

Once issues are evaluated, opportunities are identified. Specific opportunities related to each of the priority recommendations are recognized throughout the book. Generally, recommendations addressed the following:

- Operational efficiency targets and benchmarks for improved throughput and departmental capacity.
- Facility improvements discovered in facility walkthroughs and MEP evaluation.
- Quality improvements related to code issues. maintenance of safe environments, and aesthetic improvements.
- Network coordination.
- Best practices, practice improvements.
- Circulation, wayfinding needs and improved accessibility
- Consolidation of services for improved efficiencies.
- Implementation of new programs that improve quality of care and allow JPS to sustain its mission while increasing cost efficiencies.

## PRIORITY RECOMMENDATIONS

Once opportunities are identified, they are filtered through key planning concepts to establish priority recommendations.

#### Key Planning Criteria (The Filter)

The plan's aim is to propose a strategic framework based on the need to address immediate facility and operational maintenance issues, the opportunity to implement ongoing and timely strategic initiatives, and the urgency to maximize operational capacities in order to accommodate current and future patient needs through conservative and efficient use of facilities and resources. With these goals in mind, there are four key planning concepts that serve as a filter for evaluating opportunities.

## Plan Criteria

quality	improvements / maintain functionality
efficiency	optimize operational capacities & growth
environment	improve image, branding & satisfaction
stewardship	manage resources & sustainability

The opportunities that most strongly met these criteria became priority recommendations. Priority recommendations are grouped based on associated key planning units, and are presented in the "Priority Recommendations" section in this book. Each of the Priority Recommendations has an accompanying strategic foundation section and priority recommendations section.

- 1. Regional Network Strategy / Community Clinics
- 2. Emergency Department / Main Campus Clinics
- 3. Major and Minor Invasive Reorganization
- 4. Bed Reorganization
- 5. Academic Programs
- 6. Image & Circulation
- 7. Campus Development

#### PHASED CAPITAL PLAN

Priority Recommendations are assigned a phase based on priority, need and logical progression. Cost of each of the priority plan components is estimated based on construction or renovation cost per SF, plus a factor for MEP, equipment, professional fees, and contingencies. A summary of all priority recommendations, associated costs and phasing are presented in the "Cost Analysis" section of the appendix.

The phased capital plan is a culmination of the strategic foundation, resulting strategic and facility plan, and a realistic cost and phasing structure that is assigned for plan implementation.



Phase One A & B: Efficient Core Services

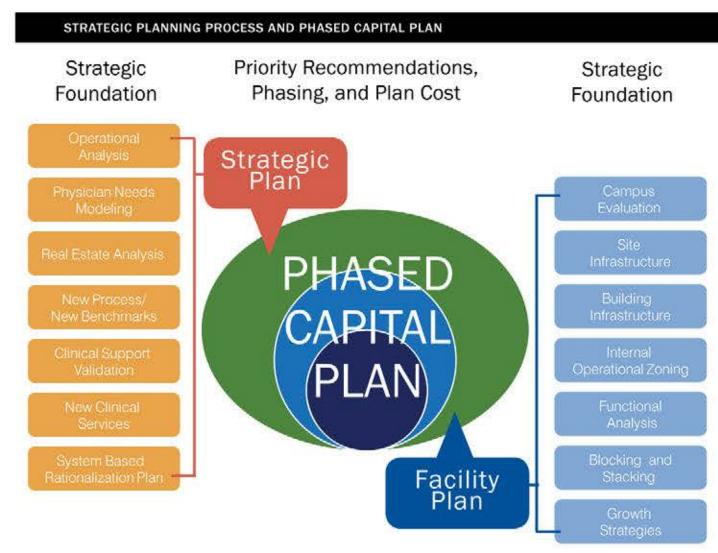
One Contiguous Campus

Regional Community Care Strategy Implementation

Phase Two: Accommodate Growth

Accommodate Volumes through Operational Improvements Regional Community Strategy Expansion

Phase Three: District & County Coordination Physical & Operational Consolidation Quality / Service Development Regional Community Strategy Expansion



## PRIORITY RECOMMENDATIONS & PHASING

Based on plan criteria Quality / Efficiency / Environment / Stewardship, the plan's priority recommendations were developed and the following sections provide an explanation of key issues and opportunities, or "Strategic Foundation" and "Recommendations" associated with each of the plan's identified strategic priorities. The structure of each of the following sections is as follows:

STRATEGIC FOUNDATION: ISSUES / INTERVIEW FINDINGS & OPPORTUNITIES
RECOMMENDATIONS: SHORT TERM(PHASES 1 & 2) & LONG TERM (PHASE 3 & BEYOND)

Following the Strategic Priorities sections, the phasing for the plan's components is explained.

# Plan Phasing **Priority Recommendations** Plan Components



## Phase One A & B: Efficient Core Services

One Contiguous Campus Regional Community Care Strategy Implementation

Phase One **EFFICIENT CORE** SERVICES

## Plan Components

Regional Medical Home "Hub": Arlington DSHA Ambulatory Surgery / Surgical Clinic Release of Select Clinic Leases

Urgent Care Relocation/New Central ED Triage Relocate Admit/ Chest Pain/Psych ED

> Minor Procedure/ Endo Sulte Renovation Surgery Reorganization: Major vs. Minor Mobile Unit Adjacent to Pavilion

Bed Reorganization: Medical vs. Surgical Renovation of NICU & Gyn Prep-Recovery Prisoner Unit Expansion/ Consolidation

Clinic Reorganization Teaching Teams in Bed Grouping Plan Repurpose Spaces for Support/ Conference

Construct Connection on Main Street Rework Entrance / Centralized Registration Renovation for Pharmacy & Orthopedic Clinic

District Boundary Identification

## Benchmarks to Meet Before Moving to Phase 2

- ✓ Reduced Costs due to Rerouted ED Visits.
- ✓ Increased ED Efficiency.

- ✓ Increased Throughput / Saved Costs

- √ Improved Scheduling Efficiency for Residents
- ✓ Improved Patient Satisfaction
- ✓ Revenue from MetroWest Development. ✓ Revenue from Other Developments

## Phase Two: Accommodate Growth

Accommodate Volumes through Operational Improvements Regional Community Strategy Expansion

## Phase Two ACCOMMODATE GROWTH

#### Plan Components

Regional Medical Home "Hub" Implemented Rationalization of Existing Clinics Clinic Lease(s) Released

Operational Improvement & Ongoing Implementation of New Central Triage & ED Reorganization with Urgent , Psych, Chest Pain

Operational Improvement & Ongoing Separation of Minor Procedures from Major Surgery Cath/ Angio Fit-Out Adjacent to Surgery

> Operational Improvement & Ongoing Implementation of Bed Grouping Strategy

OPC Designated as Academic Services Zone Convert Ortho Offices to Conference Space

Renovate NICU for Doctors Offices

Ongoing Implementation Demo St. Joe's Relocate Eligibility & Enrollment

## Phase Three

Benchmarks to Meet Before

√ Increased Capacity / Reduced per Visit Cost.

✓ Reduced Costs due to Rerouted ED & IP Visits

✓ Reduced Costs due to Adjacency of Ail Invasive.

✓ Cost Savings from Eliminated Leases

✓Increased Throughput / Saved Costs

Moving to Phase 3

✓Increased ED Efficiency

Reduced IP Visits

✓ Reduced Cost per ED Visit

✓ Decreased Surgical Bed LOS

✓ NICU / Women's Services Volume

✓ Reduction in Patient Transports

✓ Resident Scheduling Efficiency

√ McDonatd's lease is released.

✓ Availability of Land for New Tower

✓ Availability of Trinity Springs Land

✓ Reduced MEP Costs

✓ Measured Conference Volumes/ Capacity

COUNTY COORDINATION

Phase Three: District & County Coordination

Physical & Operational Consolidation

Regional Community Strategy Expansion

Quality / Service Development

#### Plan Components

DISTRICT &

Regional Medical Home "Hub" Implemented Rationalization of Existing Clinics Clinic Lease(s) Released

> Operational Improvement & ED Expansion as Needed

Best Practice Implementation for Major Surgery Invasive Services blending Surgery, Cath, Angio. Advanced Imaging

New Bed Tower Construction/Consolidation of Beds on East side of Main Street/Psych Beds Relocate to BT/ Expand Women's & NICU Beds

Education Expansion option in New Tower & Conference Space on Level 3 of OPC

Relocate Dining to Level One from basement Campus Circulation Improvements Administration Office Relocation to BT 11

> Trinity Springs is Closed/ Demo Trinity Springs Site Development Eligibility & Enrollment Site Development

## PRIORITY RECOMMENDATIONS

Family Practice/Surgical Clinic Reorganization

MetroWest Services Relocate/ MetroWest Demo Other Land Development Possible

- ✓ Cost Savings from Eliminated Leases ✓Increased Capacity / Reduced per Visit Cost
- ✓ Decreased Transports
- √ Reduced Cost per ED Visit
- Operational Separation of Minor Procedures
- ✓ Utilization of Mobile Unit & Measured Use
- ✓ Decreased LOS especially Surgical Beds √Reduced Patient Transports
- ✓ Reduced Cost per IP stay
- ✓ Improved Physician Satisfaction
- √ Conference Volumes/ Capacity
- √ Pharmacy Efficiency
- √ Reduced Registration FTE Need
- V Reduced MEP Costs

**BOKAPowell:** JPS Health Network Strategic Facilities Utilization Plan

Regional Community Network Strategy

Emergency Dept/ Urgent Care/ Clinics Reorganization

Internal Campus Circulation/ Support Improvements

Invasive Services/ Endoscopy Reorganization

Inpatient Beds Reorganization

Academic Services Expansion

Campus Development Strategy

## SAMPLE LAYOUT OF A PRIORITY RECOMMENDATIONS SECTION

## PRIORITY RECOMMENDATIONS: SECTION EXAMPLE

This summary provides a summary of the priority recommendation section that follows including the significance of the related plan components, and a summary of key issues and recommendations.

## ISSUES / INTERVIEW FINDINGS

This section introduces key issues discovered in stakeholder interviews, data gathering and analysis, facility tours and key strategic findings.

These are the core building blocks of the strategic foundation for the vision and resulting plan.

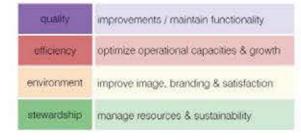
## **OPPORTUNITIES**

This section presents key opportunities that were identified during the strategic process as the initial data and information was gathered.

Not all opportunities were adopted as part of the plan. Instead, opportunities had to be filtered through a set of criteria "plan criteria" identified in the next section, to become a recommendation.

# SHORT TERM RECOMMENDATIONS (PHASE ONE & PHASE TWO)

## PLAN CRITERIA



Once opportunities are filtered through the plan criteria, some are identified as recommendations, and are incorporated into the plan.

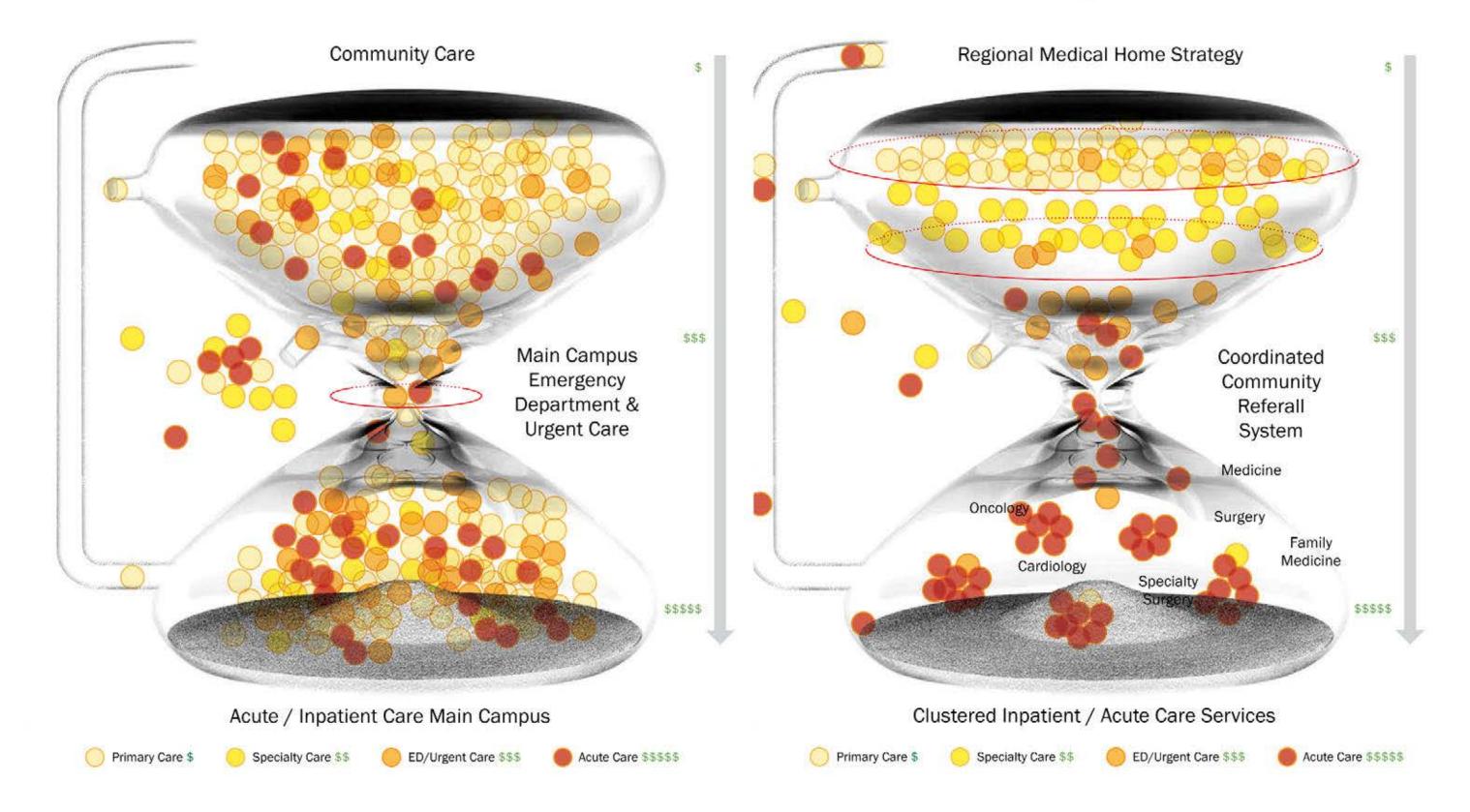
Recommendations qualify as short term if they 1 - address immediate issues/concerns or 2 - are the first steps (phased approach) toward acheiving the long term solution that is integral to the plan's vision.

In any case, the plan recommendation must address the quality, efficiency, environment and/or stewardship criteria.

# LONG TERM RECOMMENDATIONS (PHASE THREE)

This section explains the long term solution(s) related to this section's priority recommendation.

The long term recommendations reflect the overall JPS Strategic Facilities Utilization Plan vision that is set out in the executive summary/ vision section of the book.



## **COMMUNITY CARE**

Community Care should consist of a network of primary and specialty outpatient services that manages the health of the Tarrant County population and filters, or directs patients toward the appropriate care.

The Regional Healthcare Strategy takes the burden of unnecessary care at the acute level off of the main campus hospital and distributes care throughout the county in the community health clinics. The purpose is to improve access to care to ensure that, where possible, patients receive appropriate, preventative care at the lowest level of cost to the network and to the community, which reduces cost to the system at the main campus, acute care level (Emergency Department, Surgery, inpatient beds, etc).

## PRIORITY RECOMMENDATIONS: REGIONAL STRATEGY

The Regional Strategy recommends the grouping of eleven existing Tarrant County service areas into five homogenous regions to be strategically assessed for provision of health care services by JPS. The Community Medical Needs Assessment completed prior to the strategic facilities utilization plan identified health needs and gaps in the county. These findings in conjunction with demographic, referral and clinic utilization information

The Arlington region (North Arlington and South Arlington service areas) has been identified as a priority for the plan, and as Phase One of the long term regional implementation strategy for community care due to:

- 1 Opportunities for improved system efficiency, resource utilization and cost savings related to the Diagnostic & Surgery facility in Arlington.
- 3 Opportunities for efficiencies related to duplication of services (3 clinics within a 3 mile radius) in Arlington.
- a high proportion of JPS target population in this region.

## REGIONAL STRATEGY: Strategic Foundation

#### COMMUNITY CARE - STRATEGIC FOUNDATION

The JPS Community Care Network consists of twenty-six (26) clinic locations including primary care, medical and surgical specialty care, dental care, behavioral health, nineteen (19) school based clinics, a stand alone pharmacy, and a diagnostic/surgery hospital in Arlington. The clinics and network as a whole are facing significant operational and coordination challenges. There is a need for a comprehensive organizational strategy that allows for improved access to care and sustainable long term clinic capacity.

## ISSUES/INTERVIEW FINDINGS

## **Current Clinic Components**

The JPS Community Care Network comprises the main hospital campus, a small hospital in Arlington, community clinics, specialty clinics, dental clinics, pharmacies and school-based centers.

Clinics and school based centers have a variety of resources in place including social workers, case managers, education classes, exam rooms, procedure rooms, and blood draw. Lab work is sent out to the main hospital. Mobile Diagnostic services are offered once a quarter. A complete list of network locations are listed and mapped in this section.

#### Operational Issues

- There is a need for a regional strategy for placement and operational consolidation of clinics. Clinics and other community services are working in silos with limited coordination.
- There is a need to strategically locate clinics to serve the JPS target population and eliminate duplicated or unnecessary resources.
- There is a need to standardize processes and branding across the network, especially in clinics and school based health centers.
- There is a need to coordinate the JPS referral network.
- Clinics are not strategically located for accessibility and to serve concentrations of patient population. An example is in Arlington, where there are three clinics located within a 1.2 mile driving distance.
- There are high no-show rates in specialty and primary care throughout the network. This can be attributed to limited transportation, patient work schedule, and

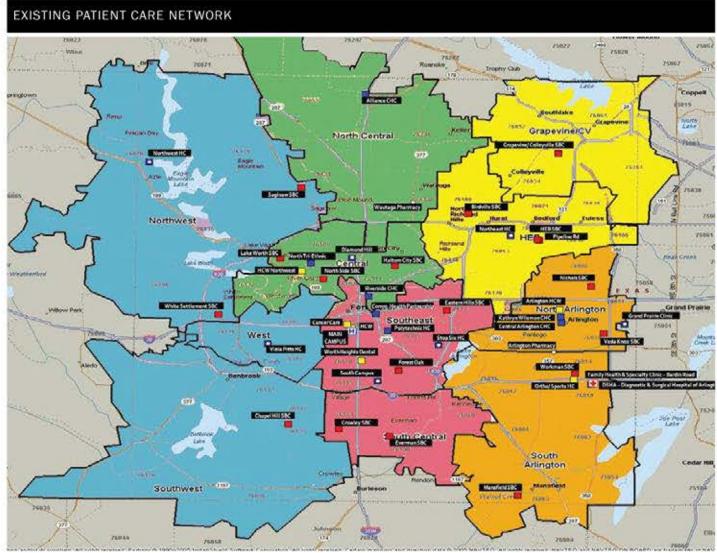
patients' limited access to another person to accompany them to the doctor.

- At the Sanford Clinic in Arlington, no-show rate is 18%.
- At the Diagnostic & Surgery Hospital of Arlington (DSHA), OP Surgery no-show rate is 10% to 20%.
- Long wait times and crowded waiting areas are realities in the JPS clinics and support areas such as pharmacies and imaging today.
  - There are two-hour waiting room times at the Health Center for Women, Health Center Arlington.
- Physician access to clinics: particularly in Arlington, physician availability and willingness to travel long distance to the facility from JPS main or nearby competitor facilities is an issue.
- No surgical ambulatory component in the network to relieve pressure from the main campus by rerouting minor, ambulatory cases to a setting that is structured to provide ambulatory services.
- High rate of non-emergent ED visits imply issues inherent in the community health network.
- Limited coordination and utilization of academic programs with clinics.
- JPS Diagnostic & Surgery Hospital of Arlington (DSHA) is relatively new, built in 2002-2003, and is underutilized.
  - Pharmacy on site, kitchen/no cafeteria, low volumes
  - Inpatient Beds 30 beds (24 Private, 6 Semiprivate)
  - Low volume have 10 inpatients/year on average
  - The Emergency Department is expensive to operate and sees very low volume
  - Surgery has six ORs, sees approx 2800 surgeries/year; most are same day surgeries, very few spend the night
- There is a JPS clinic (Bardin Road) adjacent to the DSHA facility with imaging (1 CT; 1 MRI, 2 R&F rooms), Family Practice and GI/Specialty services.

#### Facility Issues

- Problems with HVAC system at some clinics
- Covered walkways as appropriate lacking in some clinics
- Need for improved aesthetics in some cases
- Facilities are not always conducive to providing patientcentered care

Aliance Health Cente Wautaga Pharmagy





## COMMUNITY NEEDS ASSESSMENT

The Community Needs assessment presented a demand needs summary that scored each of the service areas on demographics and health status as it related to healthcare demand and needs. The service areas were ranked based on their scores. The JPS Facilities Utilization Plan referenced and overlaid the healthcare demand findings presented in the community needs assessment when developing the regional community strategy and future priorities for implementation.

	Demar	nd Needs Summary	,	
Service Area	Demographic	Health Status	<b>Demand Total</b>	Demand Score
SOUTH EAST	10.5	9.9	20.4	10.2
CENTRAL	10.5	9.1	19.6	9.8
NORTH ARLINGTON	8.5	4.4	12.9	6.5
NORTH WEST	5.5	7.4	12.9	6.5
SOUTH CENTRAL	4.5	8.1	12.6	6.3
WEST	6.5	5.5	12.0	6.0
SOUTH ARLINGTON	5.0	6.8	11.8	5.9
HEB	6.0	4.2	10.2	5.1
SOUTH WEST	5.5	3.4	8.9	4.5
NORTH CENTRAL	2.5	4.9	7.4	3.7
GRAPEVINE/CV	1.0	2.3	3.3	1.7

## PS CLINIC VISITS PATIENT ORIGIN BY SERVICE AREA

	Total Clinic Visits		N. Adington Clinic Visits	S. Arlington Clinic Visits		West Clinic Visits	Northwest Clinic Visits	Southeast Clinic Visits	Central Clinic Visits	North Central Clinic Visits	HEB Clinic Visits
	50,505	NORTH ARLINGTON	28,978	10,237	437	263	3	8,718	1,285	51	533
Arlington	48,010	SOUTH ARLINGTON	20,932	13,688	335	538	10	10,866	1,151	16	474
	31,168	WEST	277	813	3	13,779	175	12,492	3,468	22	139
West	32,401	NORTH WEST	203	1,369	5	5,446	4,882	8,463	11,349	240	444
	32,043	SOUTH WEST	503	1,267	5	9,749	141	17,753	2,471	28	128
South	138,790	SOUTH EAST	2,871	4,346	45	6,309	110	118,286	5,665	245	913
Journ	21,724	SOUTH CENTRAL	622	1,292	-10	2,439	. 47	16,261	925	17	111
Month	76,500	CENTRAL	562	2,426	8	3,283	1,042	21,039	44,646	1,185	2,309
North	29,833	NORTH CENTRAL	474	3,302	4	446	178	7,236	11,380	4,080	2,733
	68,557	HEB	3,025	4,280	49	454	104	13,175	24.625	2,892	19,953
Northeast	4,074	GRAPEVINE/CV	188	446	4	25	- 3	879	84	179	2,268
	10,901	IN AND OUTSIDE TARRANT	3,215	2,577	79	580	37	3,337	772	65	239
	10,486	OUTSIDE SVC AREAS	805	1,048	14	736	581	5,085	1,749	132	336

<sup>\*</sup> South Central and Grapevine/CV are not listed in the columns because there are no clinics in these service areas.

## COMMUNITY CARE: Regional Strategy - Strategic Foundation

## JPS Patient Origin

clinic.

- The centralized clinic in the West region is pulling patients from both the North West and South West; North and South Arlington pull patients from the same
- The Southeast has a significantly sized target population: South Central is significantly smaller but 75% of South Central patients seek care in the Southeast region.
- Central & North Central patients are heavily using the Central Clinics and are going south to the Southeast clinics, likely due to limited access to services in clinics in their regions.

 HEB has a high target population compared to Grapevine, but more than half (56%) of JPS patients from Grapevine go to the HEB

## T" BUS ROUTES / SERVICE AREAS OVERLAY

The North West, South West, South Central, HEB, Grapevine, North Central, and Arlington regions have little to no access to the "T"in their service areas.

Community Needs Assessment JPS commissioned a study to evaluate the health status and needs of Tarrant County related to services that the network provides. The Community Needs Assessment included a definition of the Tarrant County Study Population based on evaluation of eleven (11) service areas. These were utilized as a basis = of the community care planning process, and are referenced throughout the community care > foundation and plan. The following evaluation components in the community needs assessment were also referenced throughout

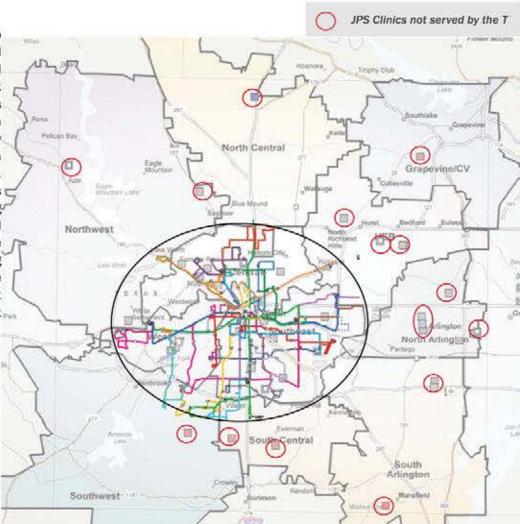
Demographic Assessment

the community needs plan:

- Health Status Needs Indicators
- Tarrant County Health Care Service Providers Supply
- Health Services Utilization
- Clinic Capacity and Wait Times

## Public Transportation/ Access

- The "T" is Fort Worth's Public Transportation System, and it serves the Southeast, West and Central Sections of Tarrant County well.
- The North West, South West, South Central, HEB. Grapevine, North Central, and Arlington regions have little to no access to the "T"in their service areas.
- The Main JPS Campus is well served by "the T" bus



## REGIONAL STRATEGY: Strategic Foundation

## **OPPORTUNITIES**

#### Regional Strategy Implementation

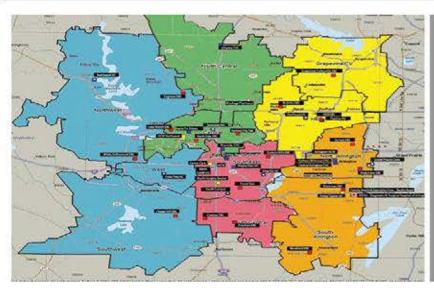
There is a need to develop a regional, strategic approach to clinic and community-based care. It should fulfill the need for a stronger primary and specialty care referral network, that will encourage quality, accessible and preventative care, at the appropriate time, in strategic locations to serve the JPS target population.

The strategy should incorporate JPS current knowledge base from the CNA, including health status needs, demographic observations, target population identification and strategic organization of the eleven designated service areas.

#### Regional Opportunities

- A rationale was developed for Regional Analysis:
  - Identify target population (CNA-defined)
  - Understand patient origin (Service Area/ Zip Defined)
  - Encourage improved patient access (Related to both transportation and available care resources)
- Based on the rationale for the regional analysis, the eleven community needs assessment-defined service areas naturally fell into five regions: Arlington, West, South, North and Northeast.
- Priorities for phasing implementation were identified based on a combination of findings from the CNA, gaps in patient visits to JPS clinics vs. target population that should be receiving care from JPS clinics, and opportunities for increased efficiency in provision of care by region.
- The CNA revealed that the highest JPS target population centers were in Southeast, Central, North Arlington and HEB service areas.
- The CNA also revealed that the Community Needs Index (CNI) was highest for Central, Southeast, West and North Arlington service areas.
- In the Arlington, West and Northeast regions, patient access to or awareness of JPS services may be lacking because the proportion of JPS clinic visits from the region are lower than the proportion of the target population in the region.
- Arlington region was identified as the first priority for implementation of the regional community strategy based on a combination of target population size for the

## REGIONAL STRATEGY IMPLEMENTATION



## AREAS OF FOCUS: 5 Regions

ARLINGTON
North Arlington / South Arlington

West / South West / North West

SOUTH South East / South Central

NORTH Central / North Central

NORTHEAST Grapevine-CV / HEB



**Urgent Care Waiting** 

## REGION IDENTIFICATION BASED ON DEMOGRAPHICS BY SERVICE AREA

Service areas are aggregated into regions to achieve homogeneity of population base, patient origin and access to major thoroughfares and existing/ future healthcare hubs.

Region	Arlins	ton		West	1	So	uth	No	rth	North																						
Service Area	North Arlington	South Arlington	West	South West	North West	South East	South Central	Central	North Central	Grapevine/ CV	HEB	Total																				
Total Area Population (2009)	163,370	257,241	107,236	141,338	119,080	213,942	49.563	134,713	195,000	100,035	245,374	1,726,892																				
JPS Target Population (2009) Pop. Under 65, <250 FPL, & Uninsured	37,955	30,302	19,791	25,350	24,305	61,066	11,028	42,159	18,970	8,948	37,824	317,698																				
Target Population as % of Total (2009)	23.2%	11.8%	18.5%	17.9%	20.4%	28.5%	22.3%	31.3%	9.7%	8.9%	15.4%	18.4%																				
JPS Target Pop of Region as % of Total Pop	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		21.8%			22.7%		19.2%		14.7%		18.4%																				
JPS Clinic Visits from Region as % of All JPS Clinic Visits	19,	19.6%		17,3%		32.0%		19,0%		10.1%																						
Total Region Target Pop (CNA)	Total Region Target Pop (CNA) 68,257		69,446			62,094		61,129		46,772																						
CNI for Service Areas within Region (CNA) Average CNI for Region (CNA)	3.88 / Average	2000000000	4.15 / 2.85 / 3.39 Average is 3.46			4.69 / 3.45 Average is 4.07		4.75 / 2.12 Average is 3.43		1.70 / 2.85 Average is 2.28		3,30																				
Total PQIs for Service Areas (CNA) Total unique PQIs for Region (CNA)	0.053361	5 / 2 Total is 6		0.538 8 Tibe		10.5300 O T/O/C		10.000 St. 1000		0.0500 0 T/b/c		0.0500 O.0500		0.5300 O T/b/c		0.0500 O T/O/C		DUST 0 TO 10 C		10.05000 STONE		10.500 STAGE		/ 12 / 13 otal is 15		14 / 16 Total is 16		12 / 3 Total is 15		1 / 3 Total is 3		S S
Population Age 0-17	43,367	76.751	25.559	36.306	31,965	63.856	14,256	40.692	61,559	29.399	60,835	484,545																				
% of Total Area Population (2009)	26.5%	29.8%	23.8%	25.7%	26.8%	29.8%	28.8%	30.2%	31.6%	29.4%	24.8%	28.1%																				
Population Age 18-44	73,185	98,632	43,332	52,494	43,468	85,501	18,206	54,815	75,268	33,038	98,118	676,057																				
% of Total Area Population (2009)	44.8%	38.3%	40.4%	37.1%	36.5%	40.0%	36.7%	40.7%	38.6%	33.0%	40.0%	39,1%																				
Population Age 45-64	33,167	65,191	24,304	36,588	31,126	43,139	11,824	26,354	47,860	30,779	82,974	413,308																				
% of Total Area Population (2009)	20.3%	25.3%	22.7%	25.9%	26.1%	20.2%	23.9%	19.6%	24.5%	30.8%	25.7%	23.9%																				
Population Age 65-plus	13,651	16,667	14,041	15,950	12,521	21,446	5,277	12,852	10,313	6,819	23,447	152,984																				
% of Total Area Population (2009)	8.4%	6.5%	13.1%	11.3%	10.5%	10.0%	10.6%	9.5%	5.3%	6.8%	9.6%	8.9%																				
Female Age 18-34	22,872	28,297	12,868	15,547	13,099	25,673	5,452	16,166	21,450	9,003	31,899	202,325																				
% of Total Area Population (2009)	14.0%	11.0%	12.0%	11.0%	11.0%	12.0%	11.0%	12.0%	11.0%	9.0%	13.0%	11.7%																				



**Emergency Waiting** 

- region, an identified opportunity gap in clinic visits vs. target population, high community needs index within the region and significant opportunity for operational and facility consolidation efficiencies.
- Also, demographics and health status needs identified in each of the regions imply specific service line needs which may include:
  - Arlington: Women's Services and Primary Care
  - West: Geriatrics (age 65-plus) and Internal Medicine
  - South: Geriatrics (age 65-plus) and Primary Care
  - North: Pediatrics (age 0-17)
  - Northeast: Primary Care and Women's Services
  - Also, see the CNA for more information on specific disease category needs by service area.

#### Medical Home Implementation

- JPS community health administration has identified a strategy to improve access and quality of care for patients. There is an opportunity to begin a phased implementation of the medical home model.
- There is an opportunity for clinics to build availability of in-house services versus referring to other clinics/ hospital, offer a fuller range of available services to improve access to services for patients.
- Implementation of the Medical Home model is also the first step in improving the JPS physician referral network.

#### Process Standardization

- Standardize processes at community health clinics and school based health centers.
- Develop referral network throughout the county.
- Utilize session-based schedule models across all clinics to demonstrate visit standards across specialties, services, and clinical levels.

#### Centering

- Centering, group visits for patients with similar symptoms, diseases or conditions, is an opportunity to build flexibility in the clinic environment
- Chronic disease or certain conditions in which patients would benefit from hearing and learning from others with similar experiences to their own, are ideal for Centering.

 Currently, the Central Arlington clinic is offering group classes with taxi vouchers, averaging ten (10) patients per visit, for smoking cessation, safety, child birth, HIV intervention, and diabetes. A more extensive and strategic rollout of this type of care, coupled with a regional strategy for all of JPS community care, is an option for both improved quality of care and sustainable long term capacity in clinics.



#### Services in the Arlington Region

- Arlington has been identified as the highest priority need/opportunity for implementation of the regional community strategy. Arlington implementation would:
  - Eliminate duplication or unnecessary use of resources (three JPS clinics in North Arlington are located within 1.2 miles of each other, and provide many of the same resources and services)
  - Patient origin for the three major primary care clinics in North Arlington is similar (from both North and South Arlington zip codes) and a single, centralized location could serve both service areas well.
  - Arlington has better payer mix than the JPS system. as a whole; 70% Connection + Uninsured/6-7% Commercial/23-24% Medicare-Medicaid.
  - The CNA and this plan's regional opportunity assessment identified key indicators of need in Arlington (see Regional Opportunities in this section)
- DSHA is currently performing 2,800 minor surgical procedures per year in six ORs, with capacity for growth. At the same time, the ORs on the main campus are approaching capacity and performing a significant number of minor procedures that could be performed in an ambulatory, outpatient envoronment, at a lower cost to the system.
  - Therefore, maximize DSHA ORs for ambulatory surgery, to take pressure off ORs at the main campus

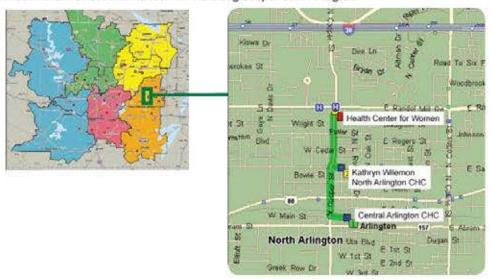
## COMMUNITY CARE: Regional Strategy - Strategic Foundation

- A surgical specialties clinic located at Bardin Road would provide a referral path for DSHA surgeries and is located adjacent to DSHA.
- Utilize DSHA beds for the highest and best use. Relocation of Skilled Nursing Unit (SNU) beds from the main campus would allow for needed medical vs. surgical bed reorganization on the main campus and would remove the non-acute care SNU, with

different resource requirements, away from the acute care campus and to a more appropriate environment conducive to better care and patient / family satisfaction.

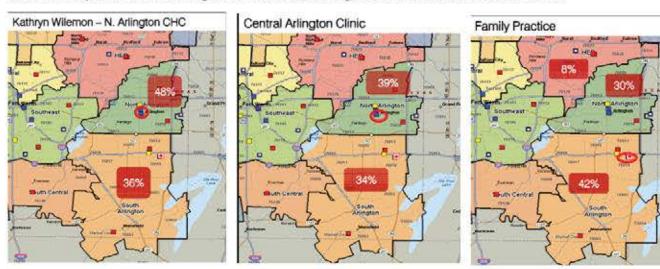
## PROXIMITY OF ARLINGTON CLINICS

The distance between Arlington Clinics is no greater than 0.6 miles. Three clinics are located between Abram Street and Randol Mill Rd along Cooper St in Arlington.



## PATIENT ORIGIN: ARLINGTON PRIMARY CARE

There is similar patient volume coming out of North & South Arlington so a centralized clinic location is ideal



## REGIONAL STRATEGY: Recommendations

## SHORT TERM RECOMMENDATIONS PHASES ONE & TWO

After filtering issues and opportunities through the plan criteria, recommendations were developed, which included strategies for long term regional implementation, and more immediate short term opportunities. The recommendations met all the plan criteria, but each of the plan components most specifically addressed **Efficiency** of operations.

#### Plan Criteria

quality	improvements / maintain functionality
efficiency	optimize operational capacities & growth
environment	improve image, branding & satisfaction
stewardship	manage resources & sustainability

## Medical Home Primary Care Model Hubs supported by a network of Specialty Care and Supporting School Based Health Centers

 A Medical Home Model that increases access to primary care, builds a referral network to specialty clinics and the acute care campus, and creates the opportunity for introduction to new models of care that will increase access, patient education and capacity for care.

## Regional Community Health Strategy Implementation

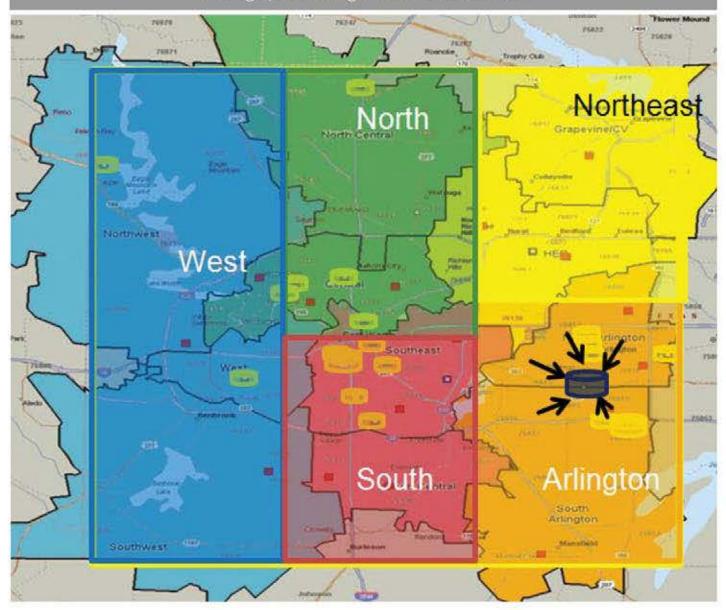
A community health strategy that utilizes the medical home model as a primary health care hub, supported by a network of specialty services and school based centers. Urgent care services will also be provided at the hub through increased hours and access to services. Once patients utilize the urgent care service, the goal is to integrate them into the medical home system and the JPS care network.

- Develop a prototype facility and implement it in Arlington.
   Once benchmarks are met proving value to the system,
   extend the community health strategy to other regions.
- Find an existing facility that is accessible, strategically located to service the JPS population, and is appropriate to accommodate needed programs and services.

This approach will encourage appropriate distribution of

## JPS Community Health Strategy

Manage the health of our population providing quality health care efficiently, in a patient and family-centered medical home model, building upon existing volume & service base.

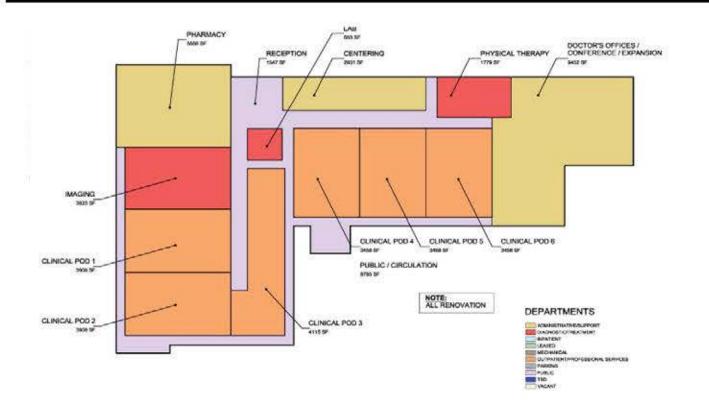


## Medical Home Guiding Principles

- BRANDED AS JPS HealthCenter
  - The HealthCenter will establish a new standard look and feel for JPS Community Health facilities.
- Pursue LEED certification if can be acheived practically and affordably.
- FOCUSED ON PATIENT & FAMILY NEEDS
  - The HealthCenter will promote & exhibit the patient and family-centered principles that are practiced throughout JPS.
  - The HealthCenter will promote protection of patient privacy, visual and auditory
- CENTERED ON PRIMARY & PREVENTATIVE CARE
  - The HealthCenter will reflect greater emphasis on education, prevention, wellness and group visits.
- The HealthCenter will house primarily primary care services.
- The Health Center will also house subspecialtie as "neighbors" and support to primary care.
- DESIGNED FOR OPERATIONAL FEFICIENCY
  - The ideal space is contiguous and one story to create greater efficiency and ease of navigation for patients and families.
  - Room for expansion is essential.
  - Accessibility to ample, convenient, safe parking and a sufficient amount of handicap parking is essential.
- The design will promote flexibility, with uniformity of room sizes where possible to afford the opportunity to change room use.
- The design includes separate staff and public areas – "off-stage" (staff-only entrance/ office areas) and "on-stage" (public entrance/ clinic areas).
- The design will facilitate ease of clinician to patient face-to-face interaction WITH concurrent data entry into the Epic clinical documentation system.
- The design will afford optimal efficiency and seek to share as many rooms, functions and staff between various components as possible.

## COMMUNITY CARE: Regional Strategy - Recommendations

## PROPOSED ARLINGTON MEDICAL HOME HUB PROTOTYPE



## **Program Summary**

54 exam rooms \*Six (6) pods of Nine (9) rooms Procedure Suite

Centering/Education Rooms Family Resource Room

**Imaging** Dental Lab PT Dept/Gym Stat Lab/Phlebotomy

Doctors Offices (30) Administrative Offices (3) Nutrition Office Case Management Social Work Health Coach

Pharmacy

services based on community need as determined from the CNA and patient utilization of JPS services.

## Process Standardization and Operational Improvements

- JPS patients who live in each region are identified and aggregated by zip code of origin and ICD-9 diagnosis.
- A session-based operational schedule and facility program is built around service/provider demand for primary care, specialty services, established operational benchmarks and standards, innovative programs, and future growth of the region.
- The session based scheduling model can be used for operational benchmarking, scheduling standardization, improved efficiencies, facility planning and programming.

## Ambulatory Surgery Focus at DSHA campus supported by a surgical specialty clinic at Bardin Road

- Minor outpatient, ambulatory surgical services, will be provided at DSHA to the Arlington region, a high target population center for JPS, and significant volume center for surgical services.
- The Bardin Road campus, currently owned by JPS would serve as referral clinic for ambulatory surgeries at DSHA.

## MEDICAL HOME SESSION-BASED VOLUME ESTIMATE & SCHEDULE FOR IMPROVED EFFICIENCIES

The model is session based and can be used by the clinic manager as a tool to reach specified operational targets. This model was built based on volumes by specialty specified in the chart below, but is flexible and easily changed to reflect new scenarios and changes in session requirements and volumes. This model shows 85% utilization of the clinic exam rooms.

ı	grouping
	Peak Sessions per Clinic Primary Care - 7, Pediatrics - 3, Behavioral Health - 1, Womens Services - 4, Dental Services - 1, Specialties - 1, *Cardiology/ Neurology/ Nephrology/ Endocrine/ Dermatology
I	Facility Needs Exam Rooms - 54, Six (6) pods of Nine (9) rooms Most Cinic sessions operate in groups of 3 exam rooms

Session-Based Schedule

Service	# sessions/ week	# rooms/ session	# room sessions/ week	# visits/ session	# visits/ year
Delman Core	00	3	2004	40	20 720
Primary Care	88			100	
Urgent Care/After Hours	8	8	64	12	4,224
Pediatrics	30	3	90	9	11,880
Women's Health	56			12	
Dental	10	6	60	12	5,280
Behavioral Health	9	1	9	5	1,980
PECMH Neighbors Clinic					
Endocrine	4	3	12	9	1,584
Cardiology	4	3	12	9	1,584
Neurology	1	3	3	10	440
Nephrology.			.3	9	396
Dematology	- 8	3	24	13	4,576
TOTALS	219		709		100,232

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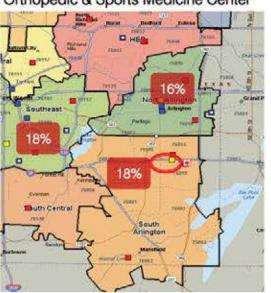
## **REGIONAL STRATEGY: Recommendations**

- This plan continues to utilize existing valuable OR space at the DSHA campus, and provides an opportunity for utilization of the Bardin Road facility, owned by JPS, as a referral source.
- Bardin Road/DSHA/Main Campus relationship would create a referral network that directs patient to the appropriate location based on care needs.
- This plan will increase surgery throughput and capacity at the main campus.

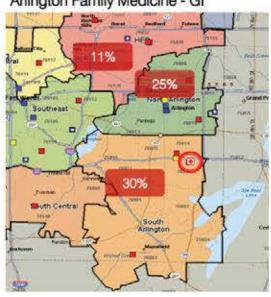
## PATIENT ORIGIN FOR ARLINGTON SURGICAL / PROCEDURAL CLINICS

Patient origin was evaluated for the existing surgical / procedural services currently located in the Arlington region. The highest volume of Orthopedic & Sports Medicine Clinic patients were relatively evenly spread among South Arlington, North Arlington and the Southeast region (where the main hospital is located). Since patients living in the Southeast are already travelling to South Arlington to see their doctor, there is potential for physicians to refer patients living in the South region to DSHA for minor surgeries and procedures, as an alternative to going to the main hospital. This would allow for reduced wait times and a more appropriate care environment for these patients.

## Orthopedic & Sports Medicine Center

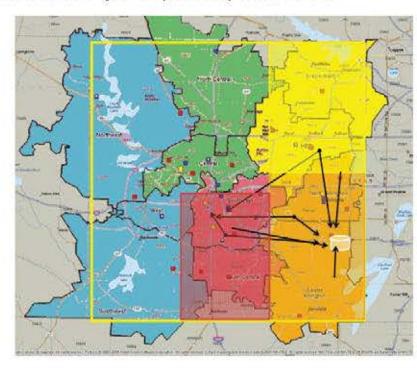


## Arlington Family Medicine - GI



## PATIENT ORIGIN STRATEGY FOR DSHA / BARDIN ROAD

With the implementation of ambulatory surgery at DSHA and surgical clinic care and referral support at Bardin Road, JPS has a means to more appropriately direct patient care through its network. In the Arlington, Northeast and South regions, patients can be directed to an ambulatory surgery environment for minor surgeries and procedures OR to the main campus for major procedures. Both JPS campuses are accessible to them and care will become more accessible as the referral system and patient care processes are honed.



## PROPOSED SURGICAL/PROCEDURAL CLINIC VOLUME & SCHEDULE

JPS Arlington Ambulatory Surgery Center

Minor Outpatient Surgery (Level I-II-III)

GI – Endoscopy Procedures

JPS Arlington Surgical/Procedural Clinics

Supported by Adjacent Surgical Specialty Clinic
General Surgery
Gl-Endoscopy
Pain Management
Urology/ Gynecology
Orthopedics/ Podiatry
Sports Medicine
Minor Imaging/ Treatment

The model is session based and can be used by the clinic manager as a tool to reach specified operational targets. This model was built based on volumes by specialty specified in the chart below, but is flexible and easily changed to reflect new scenarios and changes in session requirements and volumes. This model shows 85% utilization of the clinic exam rooms.

	# of sessions/	# of rooms/ session	# of room sessions/ week	# of visits/	# of visits/ year	
Service	26.22(OH2)	Session	week	56.22(01)		
Other Surgenes (FP/ Oto/ Eye/ Oncology, etc)						
General Surgery	14	4	56	6	3,696	
GI	10	4	.40	10	4,400	
Pain Management	11	4	44	8	3,872	
Uro/Gyn	1	3		10	440	
Podiatry	3	6			3,300	
Orthopaedics	6	6	36	25	6,600	
Sports Medicine	10	6	60	8	3,520	
Acupuncture	2	2	4	5	440	
Botox	2		2	5	440	
EMG	4	- 1	4	4	704	
TOTALS	63		267		27,412	

		Mo	nday	Tuesday		Wednesday		Thur	sday	Frit	ay	Saturday		
	37-71	AM	PM	AM.	COLPMAN.	AM	PM	AM	PM	AM	PM	AM	PM	
	Rm 1									EMG	EMG	EMG	EMG	
Exam	Rm 2	GS	GS	GS	GS	GS	GS	GS	G5					
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## COMMUNITY CARE: Regional Strategy - Recommendations

#### Beds at DSHA converted to Skilled Nursing Beds

 Thirty (30) existing beds at DSHA are in good condition and facility renovation is needed to add code-required skilled nursing support and PT areas.

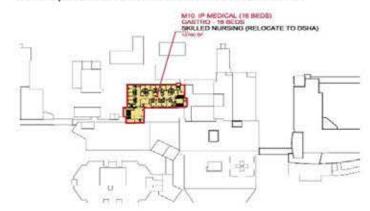
PROPOSED DSHA LAYOUT

 Skilled Nursing Beds at DSHA allows for needed acute care medical bed capacity at the main campus.

## MAIN CAMPUS BED TOWER LEVEL 9 - PHASE 1A

## Skilled Nursing Relocates to DSHA

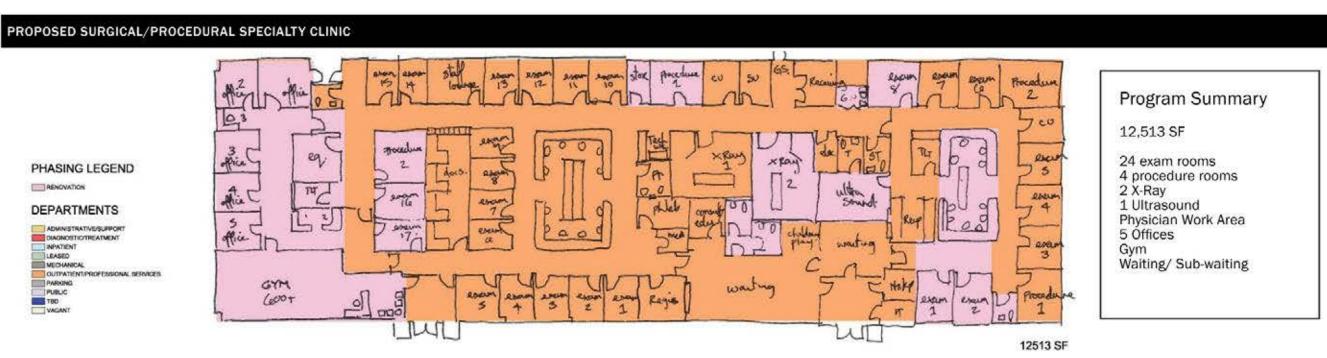
As part of the bed reorganization plan (see Inpatient Beds section of facilities utilization plan) Skilled Nursing will relocate to Diagnostic & Surgery Hospital of Arlington Campus. This move makes the bed reorganization plan possible, allowing needed capacity for consolidation of acute care inpatient medical beds in the main bed tower.



# PRE-OP/PACU **IMAGING** SURGERY INPATIENT BEDS PHASING LEGEND DEPARTMENTS V-NOT USED FOR

## Prototype Medical Home in Arlington & Reorganization of **Arlington Facilities**

- A prototype medical home facility in Arlington which demonstrates proposed facility type, program and layout.
- Re-purposed DSHA facility, including ambulatory surgery and the highest and best use for existing patient beds. The recommended highest and best use is skilled nursing beds, mainly due to resource and operational efficiency at the main campus associated with removing non-acute care patients from an acute care environment. Implementation of both services at DSHA support efforts on the main campus to increase capacity and improve operational efficiency.
- Re-purposed Bardin Road clinic as a surgical clinic to support DSHA ambulatory surgery referrals and to provide additional specialty support within the referral network to the future medical home and JPS network as a whole.



## REGIONAL STRATEGY: Recommendations

## Relocation for Materials Management Storage & MetroWest Administration / Physician Offices

- Materials Management is currently utilizing vacant ORs in the main hospital building for storage, which could be more productive providing OP surgical procedures; Hospital space is costly to build and represents an opportunity for increased capacity of clinical services.
- There is no need for Materials Management to have a large presence on the hospital campus, provided on time delivery and minor storage on site is available.
- Utilize the vacant ORs for minor OP procedures.
- The MetroWest facility on the main campus houses physician recruitment and administrative offices, which also do not need to be located on the main hospital campus; it is recommended that these offices are relocated.
- MetroWest is located along Hemphill which is expected to become a major thoroughfare in the next 5 years. This land is expected to become prime for development, and therefore, a potential future revenue source for JPS provided a land lease or a public-private partnership is created.

**BOKAPowell:** JPS Health Network Strategic Facilities Utilization Plan

## LONG TERM RECOMMENDATIONS PHASE THREE

The long term strategy for JPS community care should continue to incorporate findings from the CNA, continue to implement the regional community medical home strategy, and should set benchmarks for operational improvement. Continued utilization and implementation of the strategies in this plan will result in:

- Stewardship to the community.
- Break-down of operational & physical barriers.
- Appropriate & strategic allocation of resources.

#### Future Regional Strategy Implementation

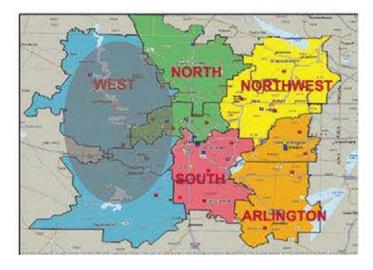
The plan has identified areas of opportunity for future implementation of the regional strategy. However, as time progresses, areas will be re-evealuated based on community needs, demographics and JPS ability and opportunity to provide increased access to care. Again, the three criteria that contributed to the development of the regional strategy will be addressed in future opportunity identification and strategy implementation.

- Identify target population (CNA-defined)
- Understand patient origin (Service Area/ Zip Defined)
- Encourage improved patient access (Related to both transportation and available care resources)

## NORTHEAST CLINIC HUB - PROPOSED LOCATION



## **WEST CLINIC HUB - POTENTIAL LOCATIONS**



## JPS Regional Community Care Strategy

Manage the health of our population providing quality health care efficiently, in a patient and family-centered medical home model, building upon existing volume & service base.

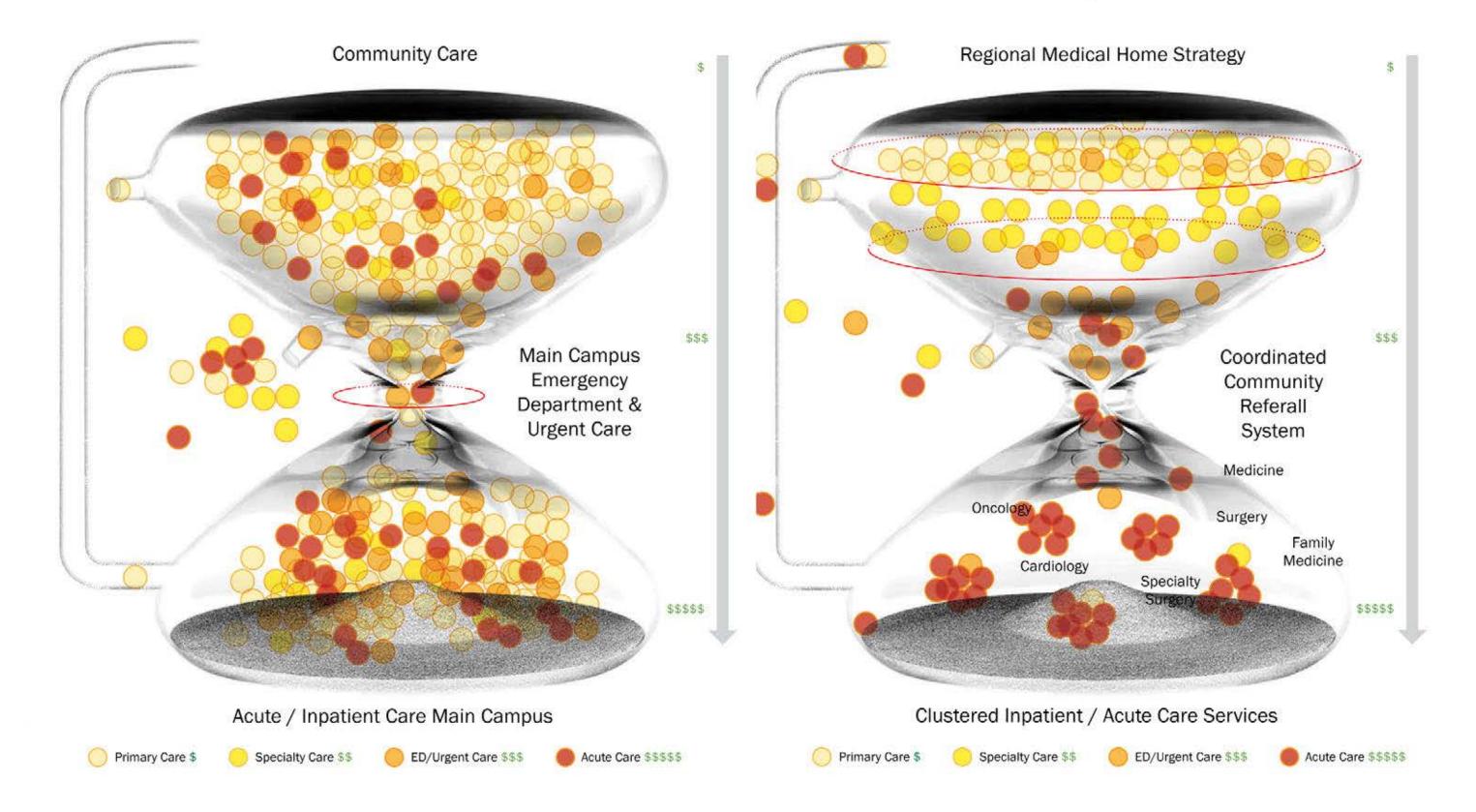


## Phase Two Critical Path

- 1. Expand Medical Home Model to other region by first identifying new location.
- 2. Evaluate JPS owned and leased properties in the region for the discontinuation of leases or change in facility utilization.
- 3. Consolidate services to new medical home hub.

## Phase Three Critical Path

- 1. Expand Medical Home Model to other region by first identifying new location.
- 2. Evaluate JPS owned and leased properties in the region for the discontinuation of leases or change in facility utilization.
- 3. Consolidate services to new medical home hub.



# MAIN CAMPUS

The Vision for the Main Campus is an efficient and coordinated campus that directs patients toward the appropriate care. Services are consolidated as appropriate to direct patients to central triage and registration locations. Services that are located in buildings on the outlying edges of the campus are pulled back in toward the main campus facilities, allowing for decreased traveling distances, tighter more efficient operations and the release of outlying buildings for taxpayer savings, hospital revenue, or non-acute care related use.

Short and long term recommendations presented in each of the following priority recommendations sections each are integral to achieving this vision of a tighter, more efficient coordinated JPS Main Campus.

# PRIORITY RECOMMENDATIONS: EMERGENCY DEPARTMENT/MAIN CAMPUS CLINICS

There are many resources dedicated to providing care and support for outpatient services on the main campus. and outpatient care is provided in many disparate locations across the main campus. Outpatient volumes of these services is critical.

The plan recommends consolidation of the ED and Urgent Care functions, requiring Urgent Care to relocate adjacent to the ED over what is now Main Street, with a new triage area that will direct patients to the appropriate level of care before they enter the ED or urgent care. The plan also recommends coordination and adjacencies recommended to allow direct admit patients currently in the ED to move out and increase ED capacity so that only true ED patients are seen in the ED.

The plan also recommends reorganization of outpatient services in the outpatient clinic building to allow for increased facility and operational efficiencies. The moves begin with the closing of Main Street and relocation of Urgent Care followed by the relocation of Family Medicine, the highest volume clinic, from level four to the ground floor. The relocation of the Orthopedic/Podiatry Clinic from level two to the ground floor with accessible

# **EMERGENCY DEPARTMENT & MAIN CAMPUS CLINICS: Strategic Foundation**

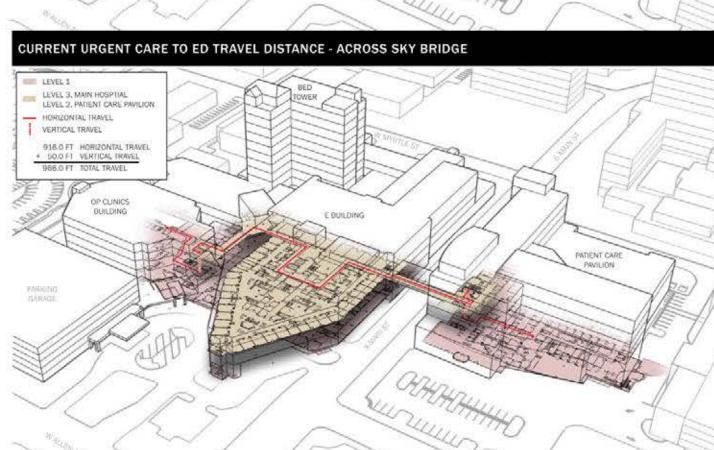
#### EMERGENCY DEPARTMENT/ CAMPUS CLINICS

The Emergency Department is currently acting as the front door to the JPS network, when it should be the front door to the acute care campus. Community and Primary Care clinics should be the front door to the network and filter patients through the system. Patients who go to the ED should already have a "home" at a clinic in the community. Until the Community strategy is implemented and successful, the emergency room will not operate as efficiently as it could.

ED visits account for 70% of hosp admissions (incl. Urgent, Psych 30%, ED 40%)

- ED components are spread throughout the facility: Chest Pain, Psych ED, and Urgent Care.
- Emergency Preparedness Coordinator: Needs room near the ER; needs office with emergency power and a computer with a knowledge base of the entire hospital.

# CURRENT URGENT CARE TO ED TRAVEL DISTANCE - ACROSS MAIN ST LEVEL 1 HORIZONIAL TRAVEL 29475 FF INSIDE TRAVEL 1556.0 FF OUTSIDE TRAVEL 831.5 FT TOTAL TRAVEL 831.5 FT TOTAL TRAVEL 2010 FF OUTSIDE TRAVEL 831.5 FT TOTAL TRAVEL 1570 FF OUTSIDE TRAVEL 1570 F



#### ISSUES/INTERVIEW FINDINGS

#### The Need for an Urgent Care / ED Solution

- The Urgent Care and the ED are located in separate facilities on the main campus, yet the two departments see many of the same patients. As a result, many resources i.e. triage and registration are duplicated.
- The Emergency Department was relocated in 2007 to the newly constructed Patient Care Pavilion. Previously, it was located in the main hospital building. Patients still look for the ED in the main hospital.
- There are a high number of patient transports between ED and Urgent Care. Urgent Care transfers 600 patients per month to the ED (10% - 12% of ED volume) and the ED transfers 150 patients per month to Urgent Care.
- The LWOBS rate can be as low as 1.5% or an average of 4.3%. This may be due to patients' limited access to transportation and in many cases no insurance, so they do not have the choice to go elsewhere for care.

#### The Need for Elimination of ED / Related Component Silos

- Limited flexibility in ED layout: The Emergency Department operates in discrete zones, designated for the level of patient care. Zoning separation creates operational silos that make it more difficult for staff to adjust to fluctuating volumes.
- The orange patient holding unit holds a large number of direct admits from nursing homes that should be in a patient bed under inpatient nursing care, but instead are monopolizing ED exam rooms and creating nurse staffing inefficiencies. The nursing staff in the ED is not ideally equipped to handle care for these inpatients and in turn, care can suffer.



**Emergency Department Waiting** 

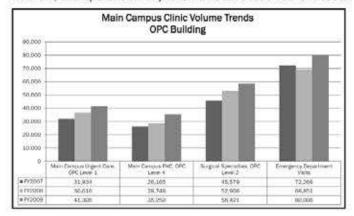


Urgent Care and OP Clinic Waiting

# MAIN CAMPUS: Emergency Department & Main Campus Clinics - Strategic Foundation

#### MAIN CAMPUS CLINIC VOLUMES - HISTORIC

Growth is significant for all OP services on the main campus, which suggests a continued need for a stronger community care network, and operational improvements to reduce network costs.



#### The Need for Campus Clinic Reorganization

- Surgical Specialty Clinics
  - Capacity is 60,000 visits and as many as 115,000 visits may come to the clinics in FY 2011.
- Patients who leave without being seen (LWBS) and patients who did not keep their appointment (DNKA) are expected to significantly reduce actual visits closer to 77,000. LWBS rate is at least 15%.
- Clinics are landlocked on level two of the OPC. The space is overutilized, with six overflow spaces allowing for 54 exam areas, in space designed for 48.
- There are narrow hallways, and patient areas do not always accommodate wheelchairs, halos, etc.
- There is no central waiting so many times staff has difficulty finding patients when it is their turn to be seen.
- A central core elevator mixes public and staff circulation and separation is needed.
- There are multiple registration areas and patients are confused about where to go to register.
- Growing residency programs means more residents to fit into the existing clinic schedule; in some cases, clinic hours must expand to accommodate schedule needs.
- Orthopedic Clinic
  - Despite difficulties walking, Ortho patients have to go to the second level of the OPC for care.
  - Physicians have aggressive growth plans.

- At the time this study was completed, patients were waiting up to 55 days to see a physician. The DNKA rate is 26%; the clinic has poor patient and physician satisfaction scores.
- Referrals from CHCs make up 83% of the volume in the Orthopedic clinic; so there is an established referral network for this specialty.
- Many times, orthopedic patients have not completed their imaging work before they get to the clinic, so a significant number of patients are sent back to OP Radiology from their clinic visit.
- The Family Medicine Clinic
  - It is the highest traffic single clinic and is located on the top level of the OPC, which results in unnecessary elevator congestion.
  - Family Medicine is landlocked on level four and has not been remodeled or expanded in 25 years.
- The no-show rate is 22% at the Family Health Clinic.
- Long registration lines are an issue when a bus arrives or patients arrive all at once.



Narrow Clinic Corridor



Clinic Registration in Elevator Lobby

#### **CURRENT: OUTPATIENT CLINIC LAYOUT**

urgical Clinics utilize 54 exam rooms on level two of the Outpatient Clinic Building (OPC)

#### FAMILY MEDICINE TEACHING CLINIC

40 exam rooms 35,000 visits per year

**ADMINISTRATIVE &** PHYSICIAN OFFICES

#### SURGICAL SPECIALTY CLINICS

54 exam rooms 58,000 visits per year

#### URGENT CARE

26 exam rooms 41,000 visits per year

Surgical and Ortho Physician Offices are located on this level.

The highest traffic clinic

s on level 4 of the OPC,

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Urgent Care/ ED have verlapping patient base with; would be more accessible to patients djacent to the ED.

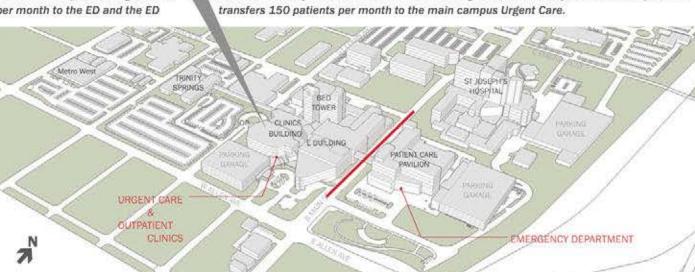
#### **OPPORTUNITIES**

- Consolidation of triage for ED and Urgent Care; this would reduce patient transports, eliminate resource duplication and allow for flexible use of patient rooms.
- Relocate Psych ED/Chest Pain/Urgent Care/Emergency Command Center/New ED Residency Program offices adjacent to the ED.
- Zone sizing and flexible use of exam rooms in the ED, to accommodate need by level of patient care.
- Implement patient admit unit to area that is more accessible to IP beds and IP bed staff to remove non-ED patients from the "orange" zone of the ED.
- Relocation of Family Medicine to a more patientaccessible location and so it is not landlocked.
- Relocation of the Ortho Clinic to a more accessible location for patients on the ground level, allowing for more efficient clinic on level two for the surgical clinics.
- Group care for follow up ED visits including trauma. psychiatric, and chronic disease to reduce clinic volume.
- Develop a residency fellowship for trauma and critical care, and a nursing internship for bed side ER nurses.
- Wound Care and evolution of a burn program; Follow-up care for trauma, burn patients (beyond the trauma clinic).

#### **ED / MAIN CAMPUS CLINICS ORIENTATION**

Main Street separates Urgent Care per month to the ED and the ED

at the main facility from the ED at the Pavilion. Urgent Care currently transfers 600 patients



# **EMERGENCY DEPARTMENT& MAIN CAMPUS CLINICS: Recommendations**

#### **EMERGENCY DEPARTMENT**

The Emergency Department and on campus clinics are all integral parts of the community network and should not work in silos but coordinate referrals, operations and resources while maintaining their unique patient care functions.

Issues were filtered through the plan criteria and the following recommendations sufficiently met the criteris. The immediate, short term recommendations related to the ED most significantly met operational *Efficiency* criteria, and the recommendations related to clinics most significantly met the *Environment* criteria.

#### SHORT TERM RECOMMENDATIONS

#### Plan Criteria

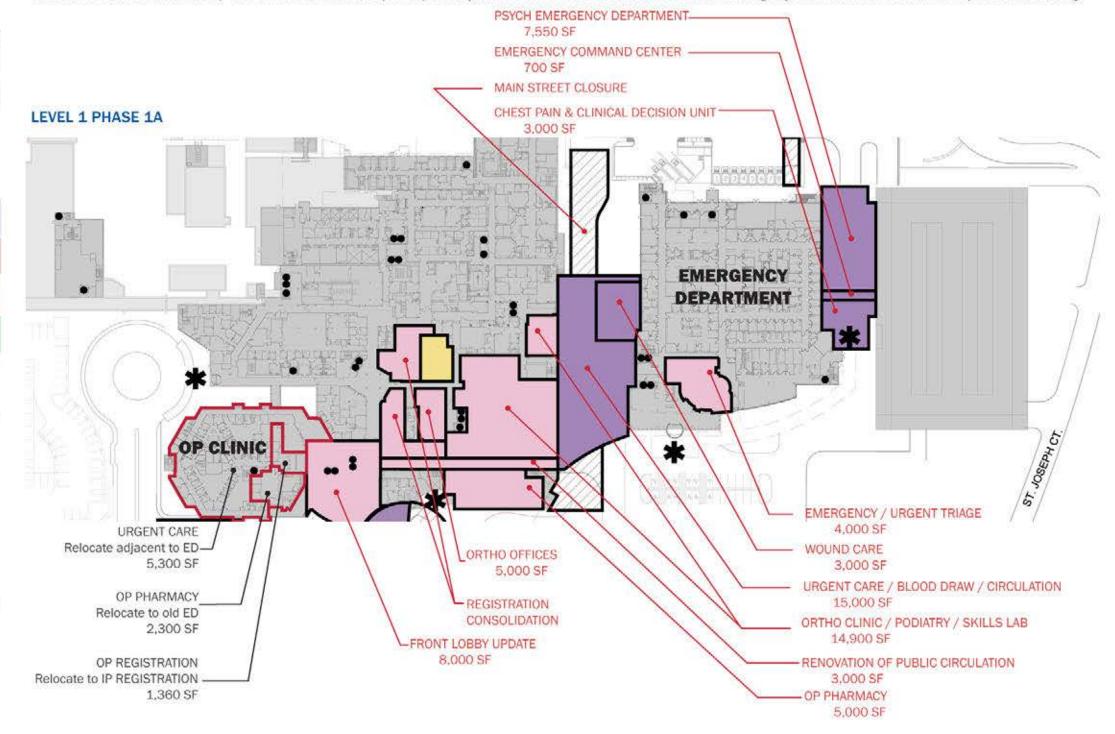
quality	improvements / maintain functionality
efficiency	optimize operational capacities & growth
environment	improve image, branding & satisfaction
stewardship	manage resources & sustainability

#### Consolidation of ED Functions

- A connection between the Pavilion and the main campus is built where Main Street currently exists.
- A renovated patient triage that will direct the patient to appropriate care, either Emergent or Urgent Care will be constructed at the present entrance to the ED.
- Urgent Care relocates adjacent to the ED in the newly constructed addition.
- Wound Care Clinic space is added adjacent to Urgent Care and the ED in the newly constructed space.
- An addition is constructed between the current ED and the Pavilion garage to house the Psych ED, a Chest Pain/ Clinical Decision Unit and Emergency Command Center.
- The current chest pain area is utilized for an admit unit, which allows for additional capacity in the ED "Orange" unit for emergency exam locations.
- Consistent with Discrete Event Simulation Modeling findings, the ED is reorganized to allocate appropriate sized ED zones, allowing for additional capacity and patient throughput.

#### CONSOLIDATE EMERGENCY DEPARTMENT FUNCTIONS & REORGANIZE OUTPATIENT CLINICS

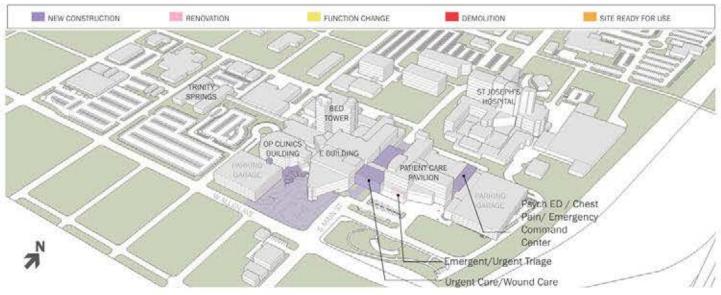
Consolidation of ED Functions on Level One adjacent to the existing ED. A new Urgent Care is constructed over the site that is currently Main Street, and a new shared triage for ED and Urgent Care is created. The Patient Care Pavilion is expanded on the East side allowing for appropriate adjacencies of emergency-related components including, the relocated Psychiatric ED, a new Emergency Command Center and the relocated Chest Pain / Clinical Decision Unit. The outpatient pharmacy will also be relocated so that it is more central to Emergency Services and the clinics in the outpatient clinic building.



# MAIN CAMPUS: Emergency Department & Main Campus Clinics - Recommendations

#### CLOSE MAIN STREET & CONSTRUCT PAVILION EXPANSION A / PAVILION EXPANSION B - PHASE 1

Main Street Closes; Emergency Department and Urgent Care are consolidated and Shared Triage is created for ED and Urgent Care. Space between Pavilion and garage to the east is utilized to relocate Psych ED, Chest Pain Unit and Emergency Command Center.

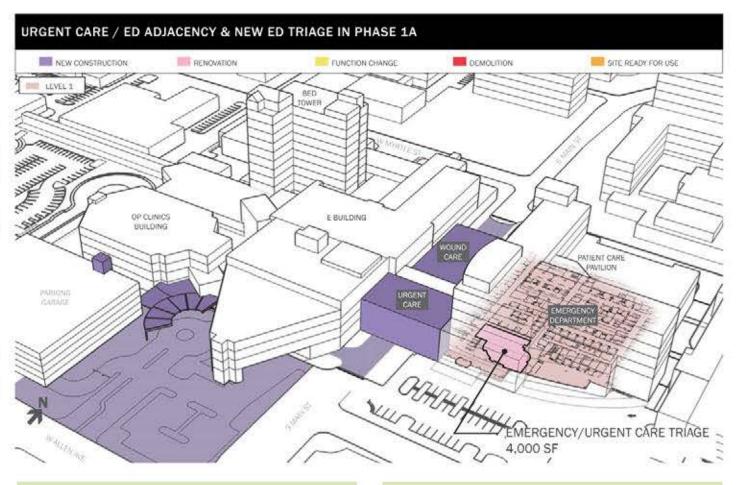




Main Street / Location for Pavilion Expansion A



Space between Pavilion & Parking Garage / Location for Pavilion Expansion B



#### Phase One A&B Critical Path:

- 1. Main Street is re-routed or closed
- 2. Construct Pavilion Expansion A for Urgent Care, Wound Care and ED/ Diagnostic Connection.
- 3. Urgent Care relocates from Level 1 of Outpatient Clinic Building.
- 4. Renovate Old ED for Pharmacy, Ortho/ Podiatry Clinic, Registration and Circulation to connect Pavilion Expansion A to Main Hospital.
- 5. Relocate Pharmacy, Ortho/ Podiatry Clinic, and Registration to Old ED.

#### Phase One A&B Critical Path (Cont.):

- 6. Family Medicine relocates from level 4 to level 1 of the OP Clinic building.
- 7. Renovate (minor) old Family Medicine clinic on level 4 for specialty clinic expansion.
- 8. Renovate level 2 (old Ortho/ Podiatry clinic) for surgical clinic expansion.
- 9. Construct Pavilion Expansion B for Psych ED and Chest Pain / Clinical Decision Unit.
- 10. Utilize Old Chest Pain Unit as New Admit Unit / Relocate "Orange" Zone beds from the ED to new unit.

# **EMERGENCY DEPARTMENT & MAIN CAMPUS CLINICS: Recommendations**

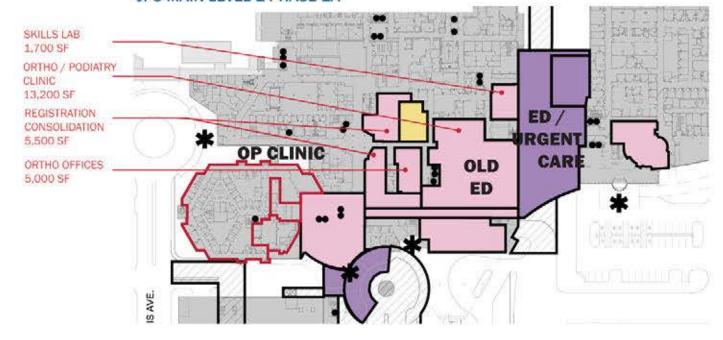
#### Reorganization of Main Campus Clinics: Family Medicine & Surgical Specialty

- Orthopedic/ Podiatry Clinic Relocation & Expansion
  - Relocation to ground floor (old ED) allows for easier access to entrance and adjacency to outpatient radiology and urgent care/ED functions.
  - Allows for needed expansion for Ortho / Podiatry and separation from other surgical clinics to allow for their expansion.
- Surgical Specialty Clinics Renovation & Expansion
  - Relocations of Ortho / Podiatry and Family Medicine allow expansion zone for Surgical Specialty Clinics and Academics on levels two and four of the outpatient clinic building through Phase One and Two of the plan.
  - Renovation of the surgical specialty clinics would allow for improved circulation and wayfinding including designated entry points, registration areas, and waiting zones.
  - Surgical Clinics will have 88 exam rooms in the OPC and 20 in the new Orthopedic/ Podiatry Clinic for a total of 108 exam rooms for Surgical Specialty Clinic expansion. Family Medicine Relocation & Expansion
- Family Medicine Clinic and offices / support relocate to existing Urgent Care space, old social work and old PT
  - Allows expansion for Family Medicine Clinic, improved access on the ground floor
  - Brings the highest traffic single clinic to ground floor to reduce elevator congestion.

#### RELOCATION OF ORTHO/ PODIATRY CLINIC TO OLD ED / ADJACENT TO EXISTING ED

The Ortho/ Podiatry Clinic and relocation to the Old ED (adjacent to the existing ED) with adjacent physician and administrative offices. Skills Lab and Registration are also centrally located among the ED and clinics, to allow for ease of utilization by teaching programs.

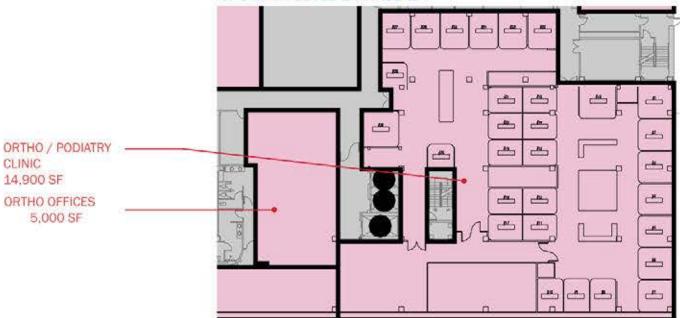
#### JPS MAIN LEVEL 1 PHASE 1A



#### PROPOSED NEW ORTHO / PODIATRY CLINIC LAYOUT

The image below shows a preliminary conceptual layout of the Ortho/ Podiatry Clinic with adjacent offices. Skills Lab and Registration consolidation are also centrally located among the ED and clinics, to allow for ease of utilization by teaching programs.

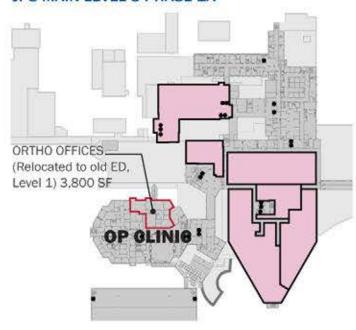
# JPS MAIN LEVEL 1 PHASE 1A



#### **NEW FUNCTION FOR ORTHO OFFICES SPACE**

Relocation of the Ortho offices and change of use for academic support services

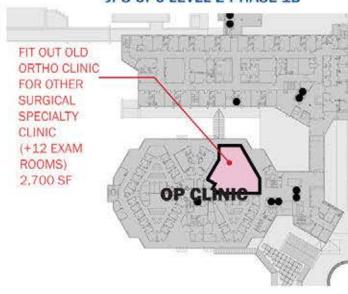
#### JPS MAIN LEVEL 3 PHASE 1A



#### SURGICAL CLINIC EXPANSION IN OPC LEVEL TWO

The plan below shows proposed renovation of the existing Ortho / Podiatry Clinic space for surgical specialty clinic expansion after Ortho/ Podiatry clinic relocates.

#### JPS OPC LEVEL 2 PHASE 1B



# MAIN CAMPUS: Emergency Department & Main Campus Clinics - Recommendations

#### CURRENT: OUTPATIENT CLINIC LAYOUT

Surgical Clinics utilize 54 exam rooms on level two of the Outpatient Clinic Building (OPC)

#### **FAMILY MEDICINE** TEACHING CLINIC

40 exam rooms 35,000 visits per year

**ADMINISTRATIVE &** PHYSICIAN OFFICES

#### SURGICAL SPECIALTY CLINICS

54 exam rooms 58,000 visits per year

#### URGENT CARE

26 exam rooms 41,000 visits per year

The highest traffic single linic is on level 4 of the OPC, creating congestion and landlocking the clinic

urgical and Ortho ocated on this level.

There are 4 pods of 12 exam rooms and 6 verflow rooms are bein ised; limited access for Ortho patients; surgical clinics are landlocked.

Urgent Care/ ED have werlapping patient base vith; would be more ccessible to patients and efficiencies created if djacent to the ED.

#### END OF PHASE 1B: OUTPATIENT CLINIC LAYOUT

urgical Clinics will have 108 exam rooms total: 88 in the OPC nd 20 in the new Ortho Clinic. Family Medicine will have 50.

#### SURGICAL SPECIALTY CLINICS

40 exam rooms 44,000 visit capacity per year

Surgical Specialty Clinics expand on level four when Family Medicine relocate:

#### ADMINISTRATIVE. PHYSICIAN AND ACADEMIC SUPPORT **OFFICES**

Academic Services expands support presence on this floor when Ortho

Surgical Specialty Clinics

expand when Ortho Clinic

relocates for increased

#### SURGICAL SPECIALTY CLINICS (NO ORTHO)

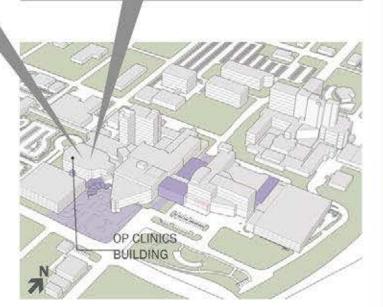
48 exam rooms 60,000 visit capacity per year

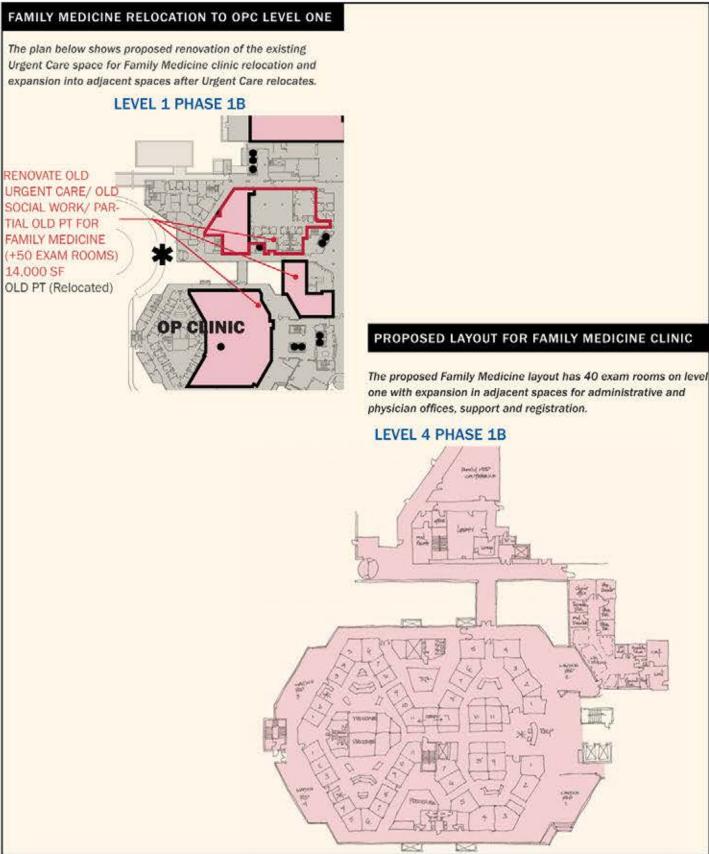
accessibility on level one

#### FAMILY MEDICINE

50 exam rooms 48,000 visit capacity per year

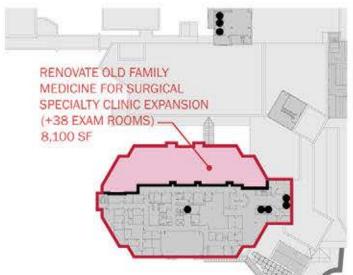
Family Medicine relocate and expands in renovate space on level one when Urgent Care relocates.





# **EMERGENCY DEPARTMENT & MAIN CAMPUS CLINICS: Recommendations**

# SURGICAL SPECIALTY CLINIC EXPANSION Surgical Clinics can expand into previous Family Medicine Clinic space on level four and add 38 exam rooms. LEVEL 4 PHASE 1B





Clinic Waiting

#### PROPOSED NEW CONCEPTUAL LAYOUT FOR SURGICAL SPECIALTIES CLINIC - OPC LEVELS TWO AND FOUR

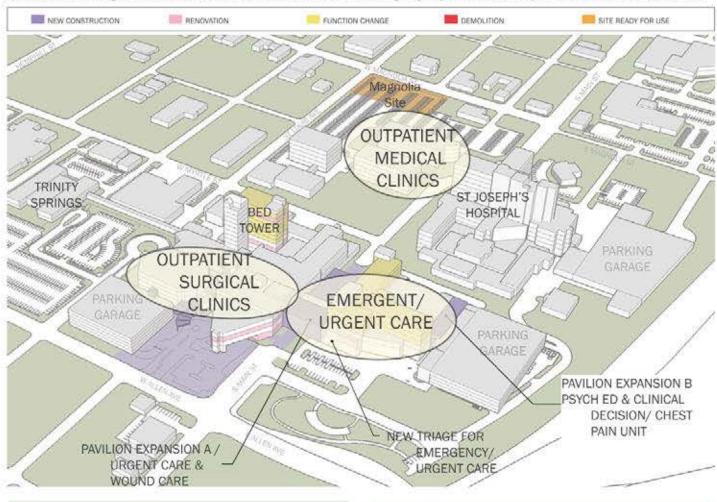
The proposed layout shows Surgical Clinics with designated entry points, registration areas and waiting zones. Levels two and four are proposed to be renovated for improved circulation and wayfinding.

#### JPS OPC LEVELS 2 & 4 PHASE 1B



#### SHORT TERM RECOMMENDATIONS: EMERGENCY DEPT & MAIN CAMPUS CLINICS - END OF PHASE 1A

This image shows the compilation of SFUP main campus recommendations at the end of phase one including floor renovations, facility / space function changes and areas of new construction. Zones for the Emergency Department and outpatient clinics are shaded below.



#### Phase Two Critical Path:

- 1. Old ED space is renovated for Ortho Offices & Skills Lab (if not completed with Ortho Clinic renovation in Phase 1); Skills Lab and Ortho Offices are Relocated to renovated space in Old ED.
- 2. On level three of the outpatient clinic building, old skills lab is repurposed as academic conference space and Ortho offices are repurposed as Academic offices.

#### Phase Three Critical Path:

1. Construct new tower with shell expansion for Emergency Department and Imaging.

# MAIN CAMPUS: Emergency Department & Main Campus Clinics - Recommendations

#### LONG TERM RECOMMENDATIONS

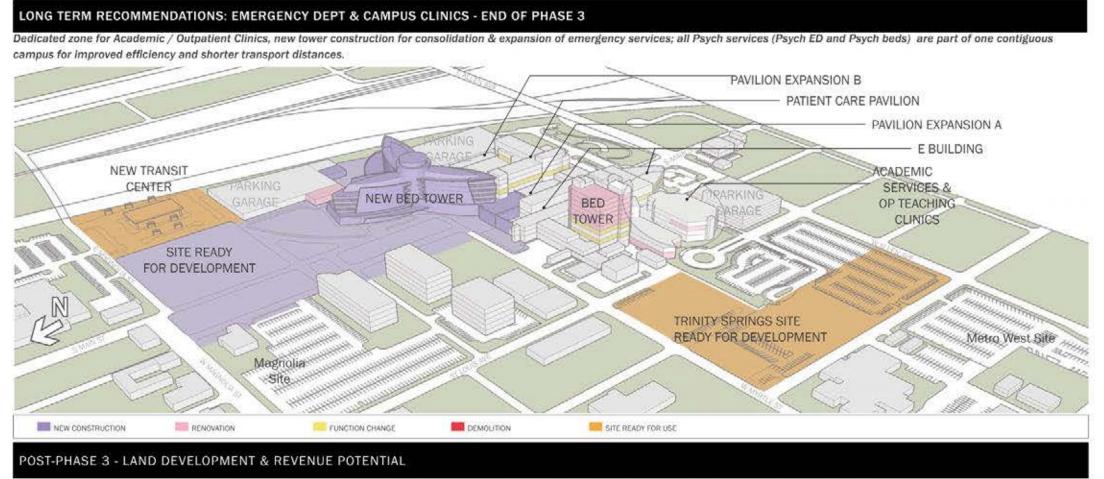
#### ED Component Expansion

- The Emergency Department expands into the new tower at the current St. Joseph site
- Admit unit relocates to the new tower

#### Continued Implementation of Outpatient Building Zone

 Outpatient Building becomes academic clinics/support growth zone including:

BASEMENT LEVEL Resident Lounge/Academic Offices GROUND LEVEL Family Medicine Academic Clinic LEVEL 2 Surgical Specialty Clinics LEVEL 3 Academic Offices/Skills Lab LEVEL 4 Surgical Clinics Expansion



After all phases are completed, land is available for development, creating revenue potential for JPS to continue funding patient care in Tarrant County.

