July 1, 2010

Alaska Pediatric Subspecialty Plan

Consolidated Final Report

Table of Contents

Introduction 2

Project Process and Approach 3

Assessment of Pediatric Health Care Environment 16

Recommendations: Pediatric Distribution Plan 41

Recommendation #1: Pediatric Distribution Model 54

Appendix 75

Introduction

During the winter of 2009, the All Alaska Pediatric Partnership (AAPP), in collaboration with the Alaska State Hospital and Nursing Home Association (ASHNHA) and the Alaska Mental Health Trust Authority (AMHTA), initiated the development of a pediatric subspecialty distribution plan for Alaska. The purpose of this plan was to identify and adopt a distribution strategy that provides the optimal balance of access to care for Alaska's children with an environment that is attractive to new providers, identifies the best use of outside specialists and primary care providers, and ensures volumes necessary to maintain skill sets and provide high-quality, safe care. To assist in the process, the AAPP engaged the services of Kurt Salmon Associates (KSA), a worldwide health care consulting firm with experience in children's health care, rural/frontier markets, physician development, and strategic planning in complex environments.

This *Consolidated Final Report* details the work completed through this planning process and is a compilation of all major meeting documents and deliverables, including a comprehensive list of participants. A summary of the findings and recommendations resulting from this work can be found in the *Executive Report*. If you have any questions regarding the content of either report feel to contact any of us. We have appreciated the opportunity to work with you.

Mark Wietecha
Chairman, KSA
mw@kurtsalmon.com
404.898.7856

Shelley Oberlin
Manager, Strategy
shelley.oberlin@kurtsalmon.com
650.616.7208

Laura Rehfeld
Manager, Strategy
laura.rehfeld@kurtsalmon.com
650.616.7220

Project Process and Approach

Objectives and Deliverables

Project Objectives

- Assess the demand/need for pediatric subspecialty services in Alaska
- Identify future pediatric subspecialty needs by model of care delivery (centralized vs. decentralized)
- Develop a distribution plan for the delivery of pediatric subspecialty care in Alaska over the next 5 to 10 years

Deliverables for Broad Distribution

- Steering Committee documents posted on the AAPP website
- Pediatric Grand Rounds
- Executive Report: Situation assessment and recommendations
- Consolidated Final Report: Compilation of all documents

Timeline

Phased approach over the balance of fall and winter

	SEPT	OCT	NOV	DEC	JAN	FEB
Project Organization						
Step 1: Situation Assessment						
Step 2: Model Development and Requirements						
Step 3: Preferred Distribution Model						
Steering Committee Meetings						

Participants

- Steering Committee
  - Function as the oversight body for the engagement
  - Anchor the process and ensure communication flow
- Executive Team
  - Approved project logic and approved deliverables prior to being sent to Steering Committee
- Interviews
  - Involve a wide sector of the community in dialogue
  - 75+ interviews from more than 25 different organizations

Organizations/Institutions

- Alaska Native Medical Center (ANMC)
- Alaska Native Tribal Health Consortium (ANTHC)
- Alaska Regional Hospital (ARH)
- Alaska State Hospital and Nursing Home Association (ASHNHA)
- American Academy of Pediatric Dentistry, Alaska (AAPD)
- Bartlett Regional Hospital (BRH)
- Central Peninsula Hospital (CPH)
- Elmendorf Air Force Base/3rd Medical Group (EAFB/3MDOS)
- Fairbanks Memorial Hospital (FMH)
- Glacier Pediatrics
- La Touche Pediatrics
- Mat-Su Regional Medical Center (MSRMC)
- Municipality of Anchorage Department of Health and Human Services (MOA)
- North Star Behavioral Health (NSBH)
- Providence Alaska Medical Center (PAMC)
- Ptarmigan Pediatrics
- South Central Foundation (SCF)
- South East Alaska Regional Health Consortium (SEARHC)
- State of Alaska Department of Health and Social Services (DH&SS)
- State of Alaska – Alaska Psychiatric Institute (API)
- Tanana Valley Clinic (TVC)
- The Children’s Hospital at Providence (TCHAP)
- University of Alaska (UA)
- Yukon-Kuskokwim Health Corporation (YKHC)

Steering Committee Members

Steering Committee

- Rod Betit, CEO (ASHNHA)
- Stephanie Birch (DH&SS) **
- Amy Dressel MD (Comm. Peds)
- Gena Edmiston, RN (FMH)
- Paula Fair, RN (ARH)
- Matt Hirschfeld, MD (ANMC) **
- Jon Lyon, MD (Comm. Peds) Chair **
- Dick Mandsager, MD (PAMC) **
- Beth Medford, MD (TVC)
- Michelle Myers, DO (ANMC)
- Phil Neuberger, MD (North Star)
- Laura Peterson, MD (Comm. Peds)
- Andie Posey, RN (CPH)
- Amy Schumacher, MD (ANMC)
- Katy Sheridan MD (Comm. FP)
- Pat Smith, RN (MSRMC)
- Emily Stevens, RN (MSRMC)
- Debra Taylor, RN (ARH)
- Chris Tofteberg (MOA DH&HS)
- Lauren Wolf, MD (EAFB/3MDOS)
- Brad Whistler, DDS (DH&SS)

** Members of the executive committee

Role of Steering Committee and KSA

Steering Committee

- Function as the oversight body for the engagement
- Craft vision and core principles that will frame the future delivery model for pediatric subspecialty care
- Validate environmental assessment findings and understand implications for delivering pediatric subspecialty care
- Approve assumption sets and sensitivity variables associated with all analyses
- Submit recommended model for approval

Interviewees

Anchorage

- Stephanie Birch (DH&SS, AAPP Chairperson)
- Dave Bromalaski, MD (TCHAP, Surgeon)
- Bruce Chandler, MD (MOA, CMO)
- BJ Coopers, MD (TCHAP, Intensive Care)
- Roy Davis, MD (PAMC, CMO*)
- Jeff Demain, MD(PAMC, Pediatric Allergy, Immunology)
- Doug Eby, MD (VP, Medical Services SCF*)
- Mike Engel, MD (ANMC, Intensivist)
- Paula Fair, RN (ARH, Women's Children's Medical Oncology Manager)
- Greg Ford, MD (TCHAP Surgeon)
- Paul Friedrichs, MD (EAFB, 3MDOS, Commander*)
- George Gilson, MD (ANMC, Perinatologist)
- Calle Gongalez, MD (ANMC, Pediatric Intensivist)
- Matt Hirshfeld, MD (ANMC, Hospitalist)
- Jack Jacobs, MD (TCHAP, Neonatologist)
- Stephen Jolley, MD (TCHAP, Surgeon)
- Lily Lou, MD (TCHAP, Neonatologist)
- Jon Lyon, MD (La Touche Pediatrician)
- Dick Mandsager, MD (PAMC, CEO)
- Stephanie Monahan (PAMC, Providence Foundation*)
- Michelle Myers, DO (ANMC)
- Alan Pratt, MD (TCHAP, Gastroenterology)
- Laura Schultz, MD (TCHAP, Hematology, Oncology)
- Amy Schumacher, MD (ANMC)
- Scott Wellman, MD (TCHAP, Cardiologist)
- Lauren Wolf, MD (EAFB, 3MDOS)

* Administrator or practitioner not Peds focused

Interviewees

Fairbanks

- Haley Anthes, RN (FMH, Peds Unit Coordinator)
- Sheryl Barnett, RN (FMH, IT)
- Marv Bergeson, MD (TVC)
- Gena Edmiston, RN (FMH, CNO)
- Alena Keller, RN (FMH, Peds/Med Surg Manager)
- Susan McLane, RN (FMH, Women's Children's Director)
- Beth Medford, MD (TVC)
- Michelle Nace, MD (TVC)
- Karen Perdue (UA, VP Statewide Health Programs*)
- Mike Powers, CEO (FMH*)
- James Shill, CEO (TVC*)

Bethel

- Jane McClure, MD (YKHC)
- Cindi Mondesir, MD (YKHC)

Soldotna

- Andie Posey, RN (CNO, CPH)

Mat-SU

- Bruce Hess, DO (Ptarmigan Pediatrics)
- Laura Peterson, MD (Ptarmigan Pediatrics)
- Pat Smith, RN (MSRMC, Family Birthing Center Director)
- Emily Stevens, RN (MSRMC, Med/Surg Director)
- Michael Zielaskiewicz , RN (CNO, MSRMC)

* Administrator or practitioner not Peds focused

Interviewees

Dental-Specific Interview

- Jim Case, DDS (Private Practice)
- James Singleton, DDS (ANMC, Associate Director, Internship Program)
- Brad Whistler, DDS (State Dental Officer, DH&SS)

Behavioral Health-Specific Interview

- Ron Alder (Director, API)
- Arom Evans, MD (NSBH)
- Teri Keklak (Health Policy/Behavioral Health Manager, DH&SS*)
- Tina Lee, MD (SEARHC)
- Andy Mayo, CEO (NSBH*)
- Phillip Neuberger, MD (NSBH)
- David Robinson, MD (Private Practice)
- Mark Stauffer, MD (BRH)

* Administrator or practitioner not Peds focused

Project Sponsors

Major Funders of the Project

- State of Alaska
- Alaska Native Tribal Health Consortium (ANMC, SCF)
- Providence Alaska Medical Central
- Alaska State Hospital Nursing Home Association
- The Alaska Mental Health Trust Authority
- Alaska Regional Hospital
- Central Peninsula Hospital
- Fairbanks Memorial Hospital

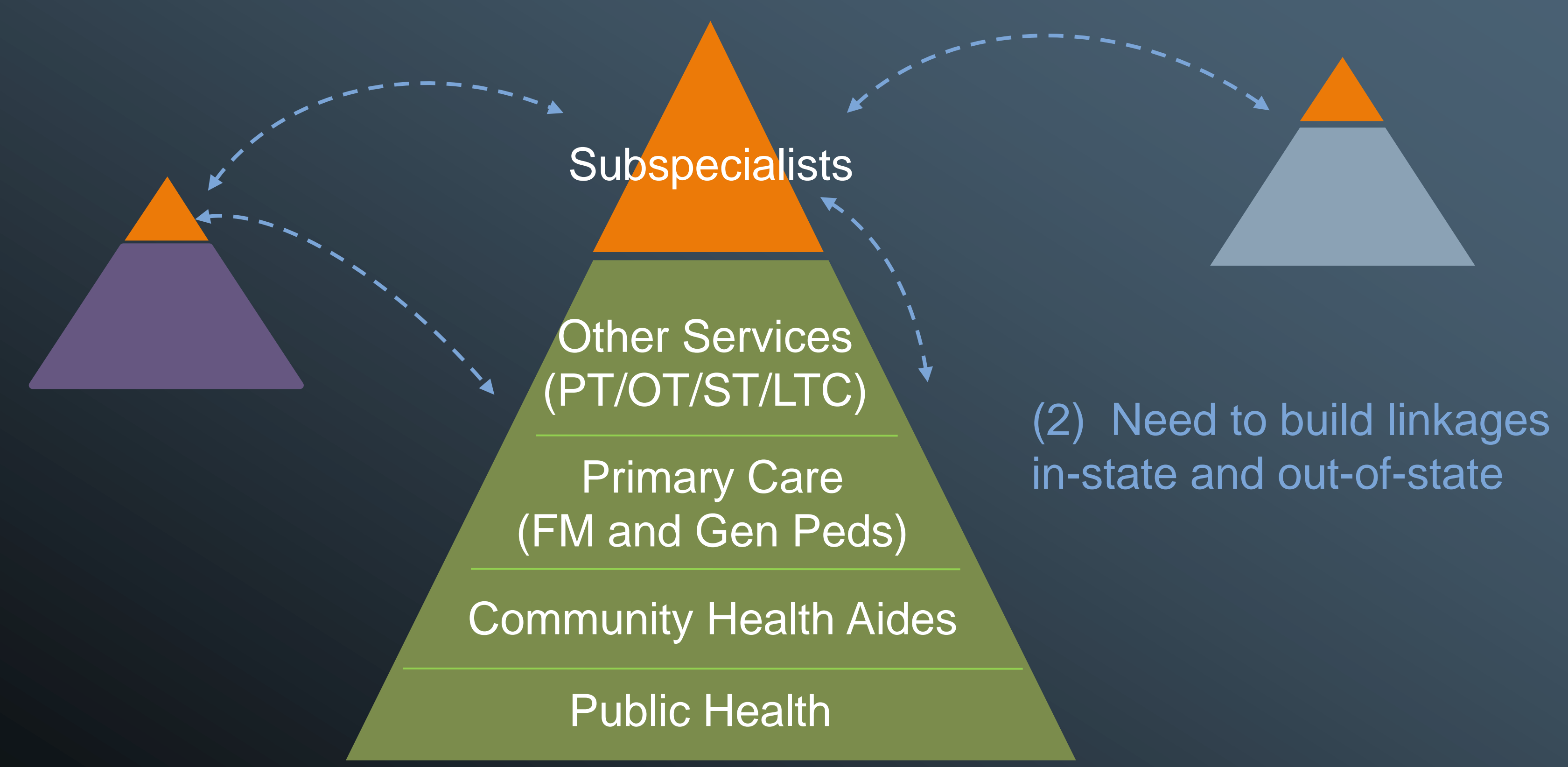
Project Scope and Parameters

Focus is on Pediatric Subspecialists – traditionally trained

- Physician recruitment targets include physicians that treat adults and children as well as those that treat only children
  - Recognition that providers for select specialties treat children up to a certain age; varies by age of child and specialty
- Recognition that there is another strata around physicians (Nurse Practitioners/Case Managers, etc.) that also treat kids
  - Opportunity to recruit and leverage these individuals given the difficulty with recruiting subspecialists
- Recommendations are future oriented – consider needs and types of physicians today and over the next five to ten years
  - Future workforce will require more flexibility in work hours and days
  - Future environment will be more competitive – zero capacity to create a whole manpower solution

Project Scope and Parameters

Consider subspecialty care as it relates to the full gamut of health care services



Assessment of Pediatric Health Care Environment

Approach to the Situation Assessment

Complete a thorough review of the Alaska market and the pediatric subspecialty environment

- Introduce new or different slants on data analyses
- Distill the findings into a meaningful starting point
  - Integrate interview perspectives
- Iterate/update throughout the process

Summary of Findings

Current Realities	Implications/Upshots
1. Growing and diversifying pediatric population; but only 200K kids are in Alaska today	Need for full range of subspecialty services, but volumes are insufficient to support
2. Large, difficult to traverse geography limits access to subspecialty care	Reliance on air transport will continue; opportunities to increase outreach and telemedicine capabilities
3. Existing resources are better than expected, but gaps exists	Gaps can be filled; requires coordinated in-state and out-of-state approach
4. Current delivery system is fragmented; no one system can support full range of subspecialists	Collaboration is important; work together to improve quality and continuity of care
5. Physician sustainability remains a challenge (national shortage, scale, lifestyle, etc.)	Developing a care network (with academic elements) will create scale and be more attractive to physicians
6. Perception of high-quality, safe care varies by subspecialty	Demonstrable outcomes are necessary to secure referrals and support in-state care

Summary of Interview Findings

1. Thinness in on the ground pediatric subspecialty providers today
   - Access problem regionally and in Anchorage
   - Local providers are overextended; need for education and support
2. Fragmented systems of care prevent local treatment
   - Focus is on current policies and procedures inhibiting convenient access across systems
3. Financials/incentives for improving care are not aligned
   - Institutionally sponsored subspecialists; local hospitals have minimal incentive to provide more
   - Limited reimbursement for itinerant clinics– kids must travel to receive care
   - No reimbursement for psychiatric day treatment – overuse inpatient beds
   - Cumbersome processes (e.g., admin tasks) create barriers to implementing new and improved models of care
4. Difficulty with recruitment
   - Not about reimbursement, but lifestyle, call coverage and practice patterns

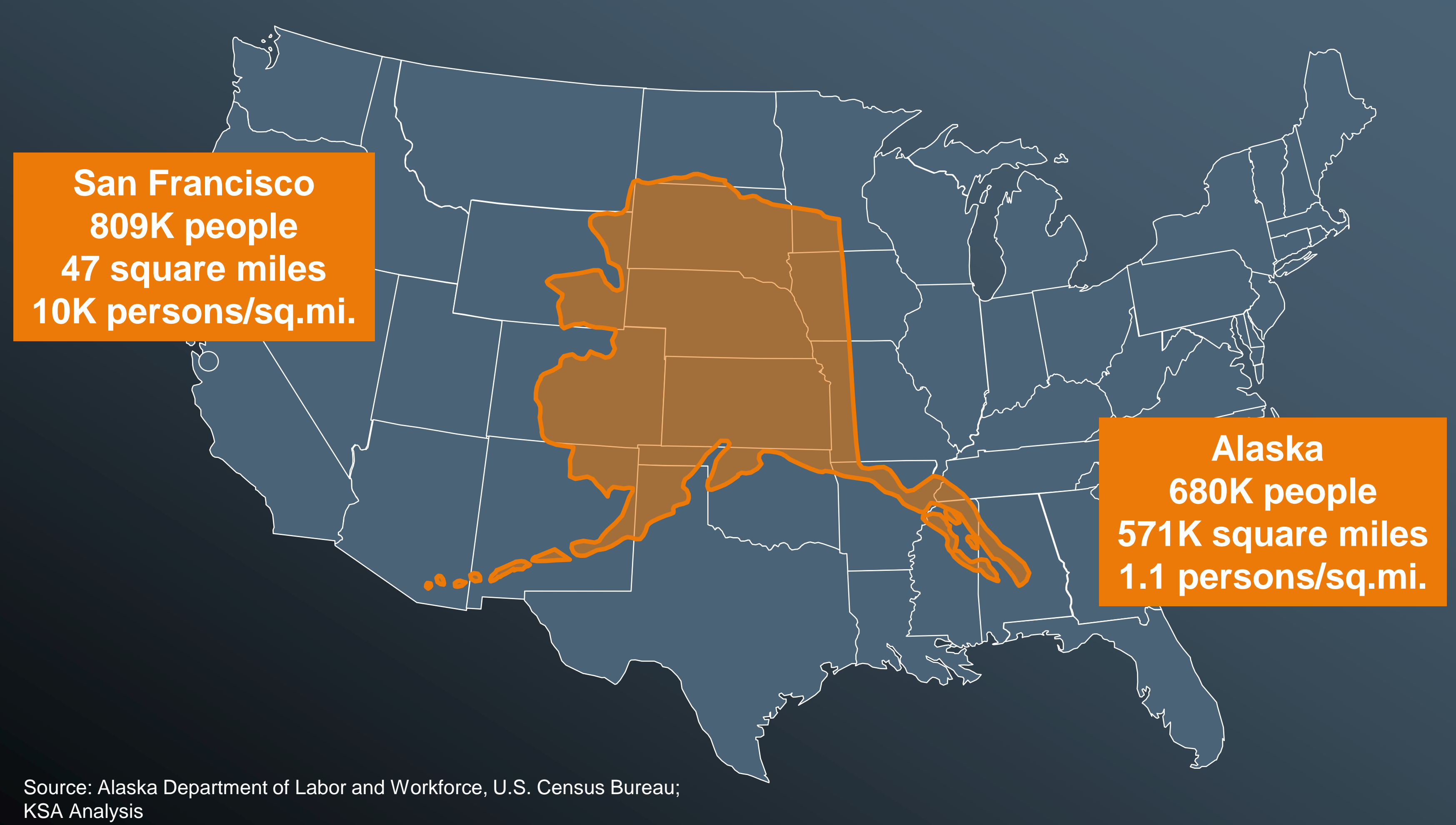
Summary of Interview Findings

5. General consensus around centralized model and continued reliance on out-of-state providers; disagreement on preferred out-of-state provider
   - Question is "how do we align"?
   - Need agreement among referring physicians to align with one organization; need incentives to do this

Out-of State Providers	Benefits	Challenges
Seattle Children's	■ Close proximity to AK ■ Top 10 Children's hospital ■ Trust in MD capabilities ■ Some specialties work well – consistent follow up and communication with providers and patients (e.g., cardiology, neurology)	■ Some specialties are disjointed (lack of communication and process for transitioning kids back to AK) ■ Linkage based on MD relationships or state contracts – the latter may limit immediate access to care ■ No incentive to develop strategic alignments or support local specialists; they will capture market share by default
Others OHSU (Doernbecher) Mary Bridge, Shriners, Emmanuel Children's, UofM, Lucille Packard Individual providers (GI, Endocrinology)	■ Alternative to Seattle ■ Provides access to subspecialty care – quality programs, bridges the gaps in state today ■ Based on good relationships/sense of loyalty	■ Programmatic focus (endocrine/metabolic disorders, scoliosis, etc.) ■ Unstable given reliance on MD-MD relationships ■ Lacks processes for consistent/coordinated care

Alaska Market – Geography and Population

Largest state in nation, with population less than city of San Francisco



Source: Alaska Department of Labor and Workforce, U.S. Census Bureau; KSA Analysis

Alaska Market – Population

Pediatric population growing faster than historical levels and will represent largest population by 2020

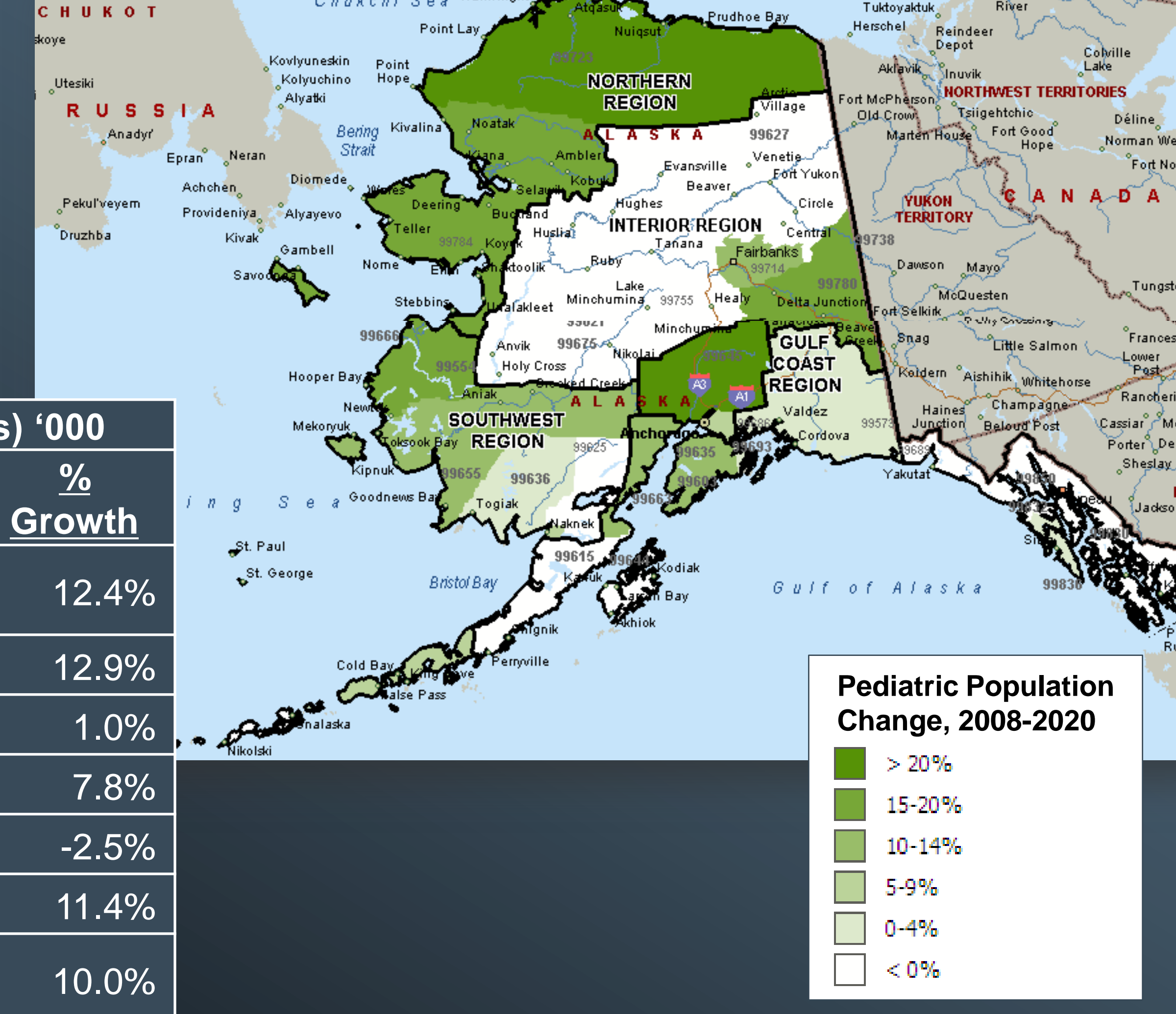
- Increase of 20,000 children
- Represents 28% of the total population

Age Group	2006	2007	2008	'06-'08 Change	'06-'08 CAGR	2015	2020	'08-'20 Change	'08-'20 CAGR
0-17	193,260	194,879	196,091	2,831	0.7%	204,845	215,771	19,680	0.8%
18-24	67,718	67,819	67,453	-265	-0.2%	70,704	70,202	2,749	0.3%
25-44	187,858	186,113	185,047	-2,811	-0.8%	200,415	213,201	28,154	1.2%
45-64	175,728	178,736	181,677	5,949	1.7%	184,055	173,389	-8,288	-0.4%
65+	45,489	46,963	49,442	3,953	4.3%	74,980	98,902	49,460	5.9%
Total	**670,053**	**674,510**	**679,710**	**9,657**	**0.7%**	**734,999**	**771,465**	**91,755**	**1.1%**
% Female 15-44	**21.0%**	**20.9%**	**20.7%**			**20.1%**	**20.1%**		

Source: Alaska Department of Labor and Workforce; KSA Analysis

Alaska Market – Geography and Population

- 70% of children in Anchorage/Mat-Su and Interior regions
- Fastest growth in interior Region



Pediatric Population (< 18 years) '000			
Region	**2008**	**2020**	**% Growth**
Anchorage/ Mat-Su	105.3	118.4	12.4%
Interior	30.3	34.2	12.9%
Gulf Coast	20.2	20.4	1.0%
Northern	10.2	11.0	7.8%
Southeast	16.1	15.7	-2.5%
Southwest	14.0	15.6	11.4%
Grand Total	**196.1**	**215.7**	10.0%

Source: Alaska Department of Labor and Workforce; KSA Analysis

Alaska Market – Population by Borough

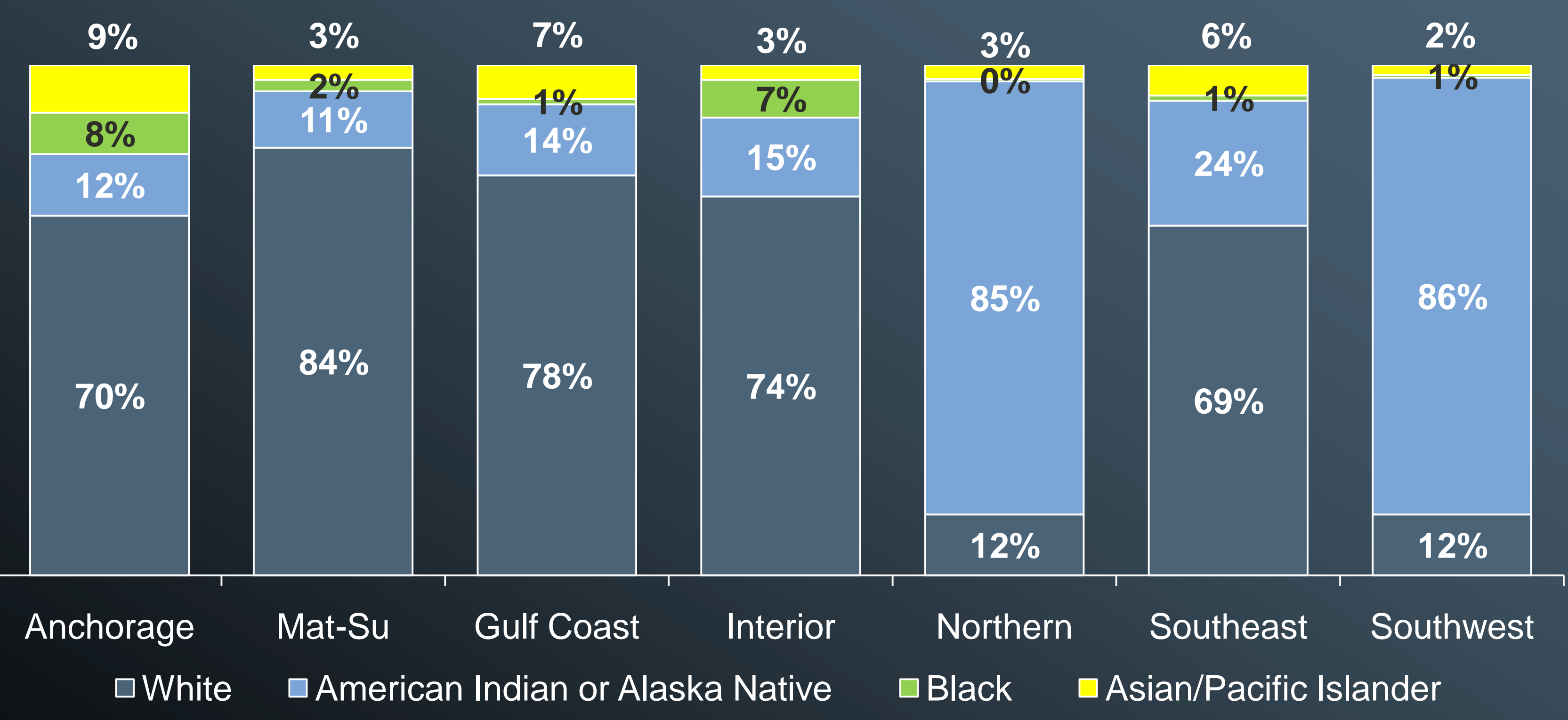
Region	Borough	2008	2020	% Change
Anchorage/Mat Su	Anchorage/Mat-Su	105,260	118,844	13%
Interior	Fairbanks	26,104	29,932	15%
	SE Fairbanks	2,190	2,417	10%
	Yukon-Koyukuk	1,653	1,540	-7%
	Denali	403	327	-19%
Gulf Coast	Kenai Peninsula	13,546	14,352	6%
	Kodiak	4,187	3,414	-18%
	Valdez-Cordova	2,465	2,651	8%
Southeast	Juneau	7,520	7,362	-2%
	Ketchikan	3,328	3,003	-10%
	Sitka	2,129	2,237	5%
	Wrangell-Petersburg	1,423	1,241	-13%
	Prince of Wales - Outer Ketchikan	1,428	1,028	-28%
	Skagway-Hoonah-Angoon	622	415	-33%
	Haines	467	281	-40%
	Yakutat	149	150	1%
Southwest	Bethel	6,934	7,930	14%
	Wade Hampton	3,576	4,189	17%
	Dillingham	1,700	1,775	4%
	Aleutians West	677	615	-9%
	Lake and Peninsula	508	421	-17%
	Aleutians East	353	373	6%
	Bristol Bay	255	291	14%
Northern	Nome	3637.6	4,381	20%
	Northwest Arctic	3054.2	3,461	13%
	North Slope	2,526	3,141	24%
Total		**196,091**	**215,771**	10%

Source: Alaska Department of Labor and Workforce; KSA Analysis

Alaska Market – Pediatric Ethnicity

Predominantly large native population in North and Southwest Regions

- Diversity increasing: 72% white in 2006, 63% in 2008

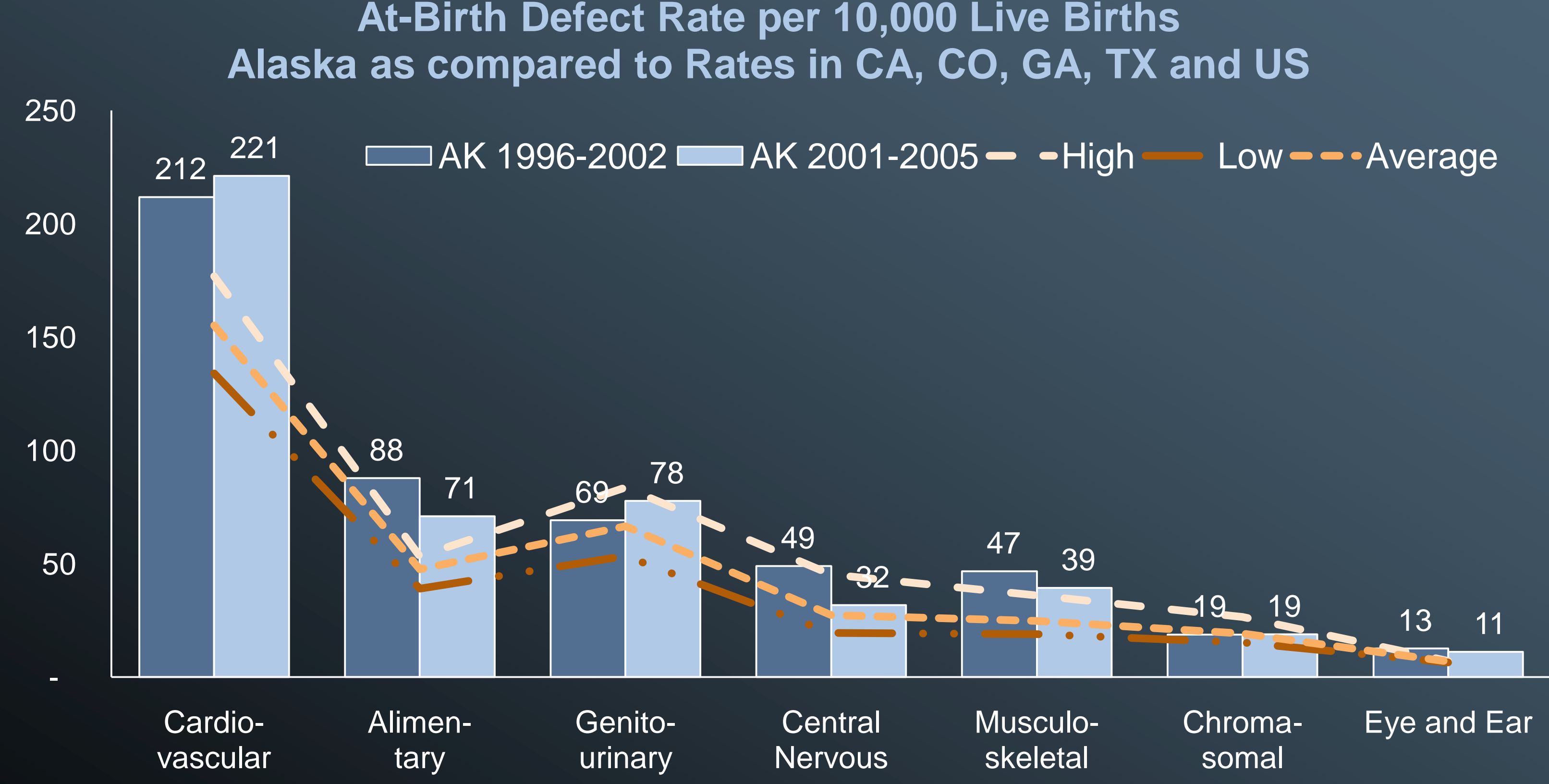


Source: Alaska Department of Labor and Workforce; KSA Analysis

Alaska Market – Health Status

Alaska children are born with higher rates of birth defects compared to other states

- 2X higher than average in 5/7 disease disorder categories



Source: Alaska Birth Defects Registry, MCH Epidemiology Unit

Alaska Market – Health Status

Health outcomes are in the lowest quartile compared to other states

	Indicator	Rate	Rank (State Comparison)	
Lifestyle	Low Birth weight: % of Total Births (2006)	6.0%	51	Highest rate of low-birth infants in the nation
	Overweight: 10 to 17 Year Olds (2003-2004)	11.1%	44	Among the lowest quartile of states with overweight teens
	Child Death Rate per 1,000 children (2004-2005)	35	49	Second highest rate of child death in the nation
	Teen Death Rate per 1,000 children (2004-2005)	111	50	Highest rate of teen death in the nation
Access	Immunization Gap: Children aged 19-35 Months without all Immunizations (2006)	32.7%	4	Among the 5 states with lowest immunization rates
	Infant Mortality Per 1,000 Live Births (2005)	5.9	38	Among the 12 states with highest infant mortality rates
	% of Children Ages 0-17 with a Medical Home (2003)	37.7	47	Among the 5 states with lowest rate for Medical Homes
	% of Children Ages 0-17 with Both Medical and Dental Preventative Care Visits in the Past Year (2003)	54.5	36	In the middle of states for children's preventative care

Source: Annie E. Casey Foundation, Kids Count Data Book; Alaska Birth Defects Registry, MCH Epidemiology Unit

Alaska Market– Un- and Under-Insured Pandemic

- AK ranked 6th in uninsured
- Percent uninsured fluctuated between 8% and 16% from 97’ – 05’
- Prenatal Medicaid coverage ~ 50% in 2005
  - Northern and Southwest regions ranged from 70% to 80%

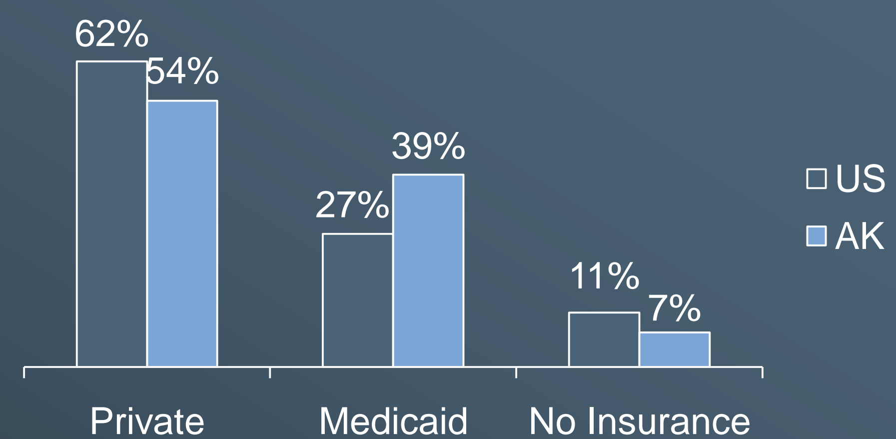
2008 Percent Uninsured Children (<18 yrs)

U.S. Average	10%
Nevada	19%
Texas	17%
Florida	17%
New Mexico	16%
Arizona	16%
Alaska	15%
Mississippi	13%
Colorado	12%

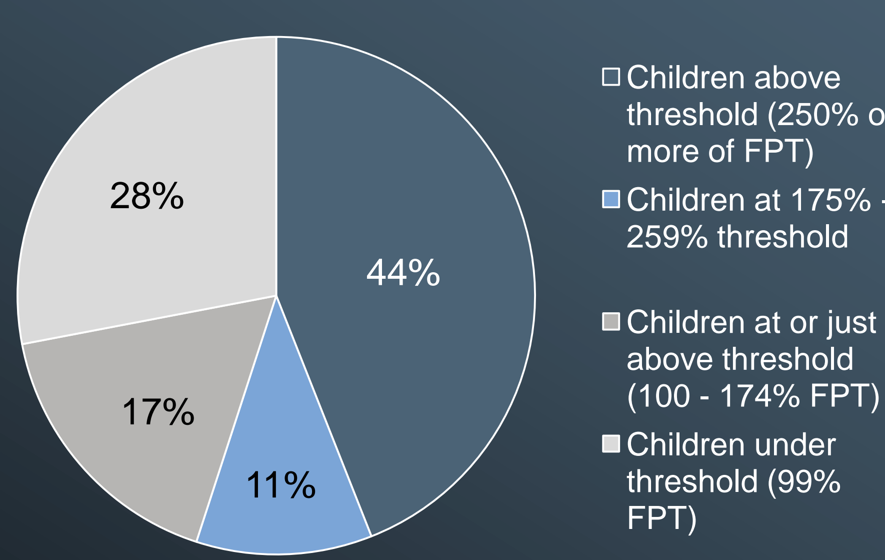
Source: US Census Bureau, Current Population Survey, Economic Supplements, 2008; Alaska Maternal and Child Health Data Book 2008; KSA Analysis

Alaska Market – Uninsured

› Alaska children more likely to be covered by government funding



› Approximately 9,000 children eligible for Denali KidCare

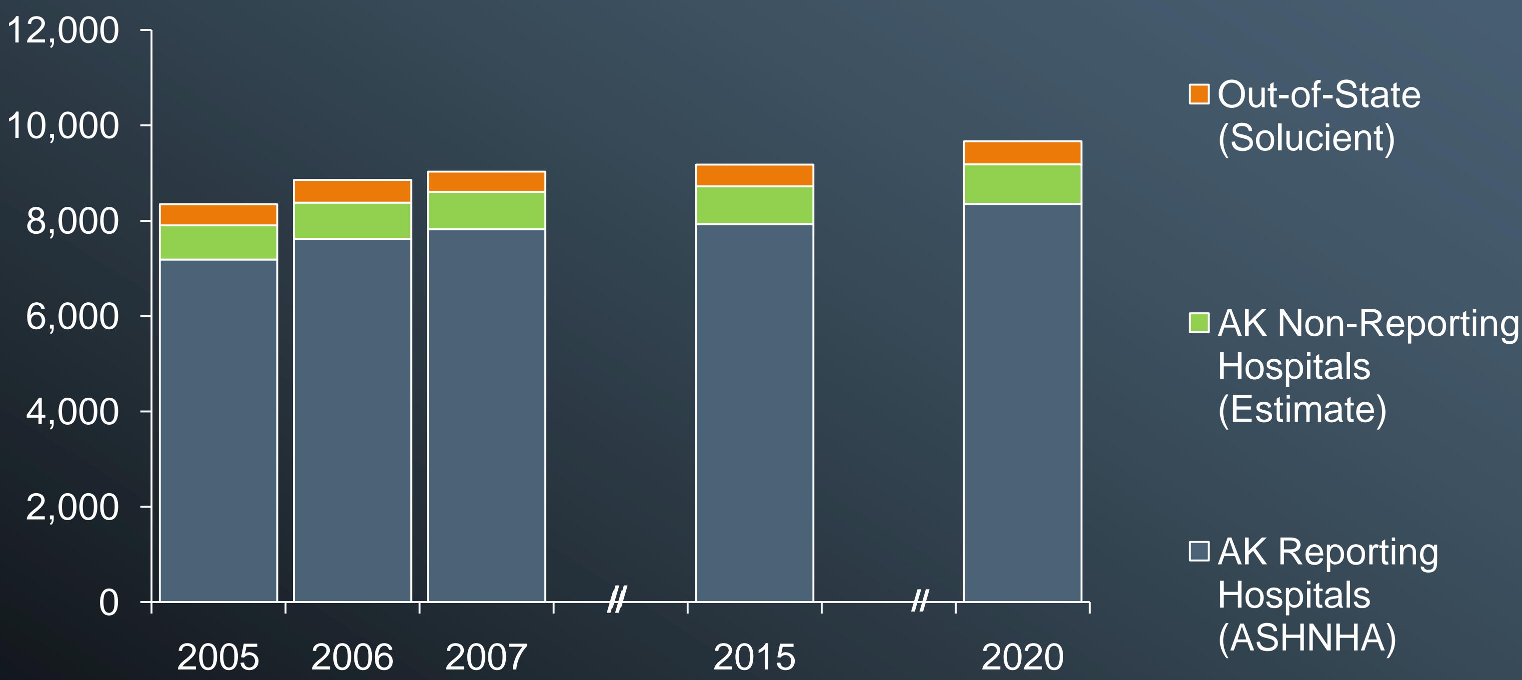


Source: Kids Count 2006 - 2007

Alaska Market – Inpatient Demand

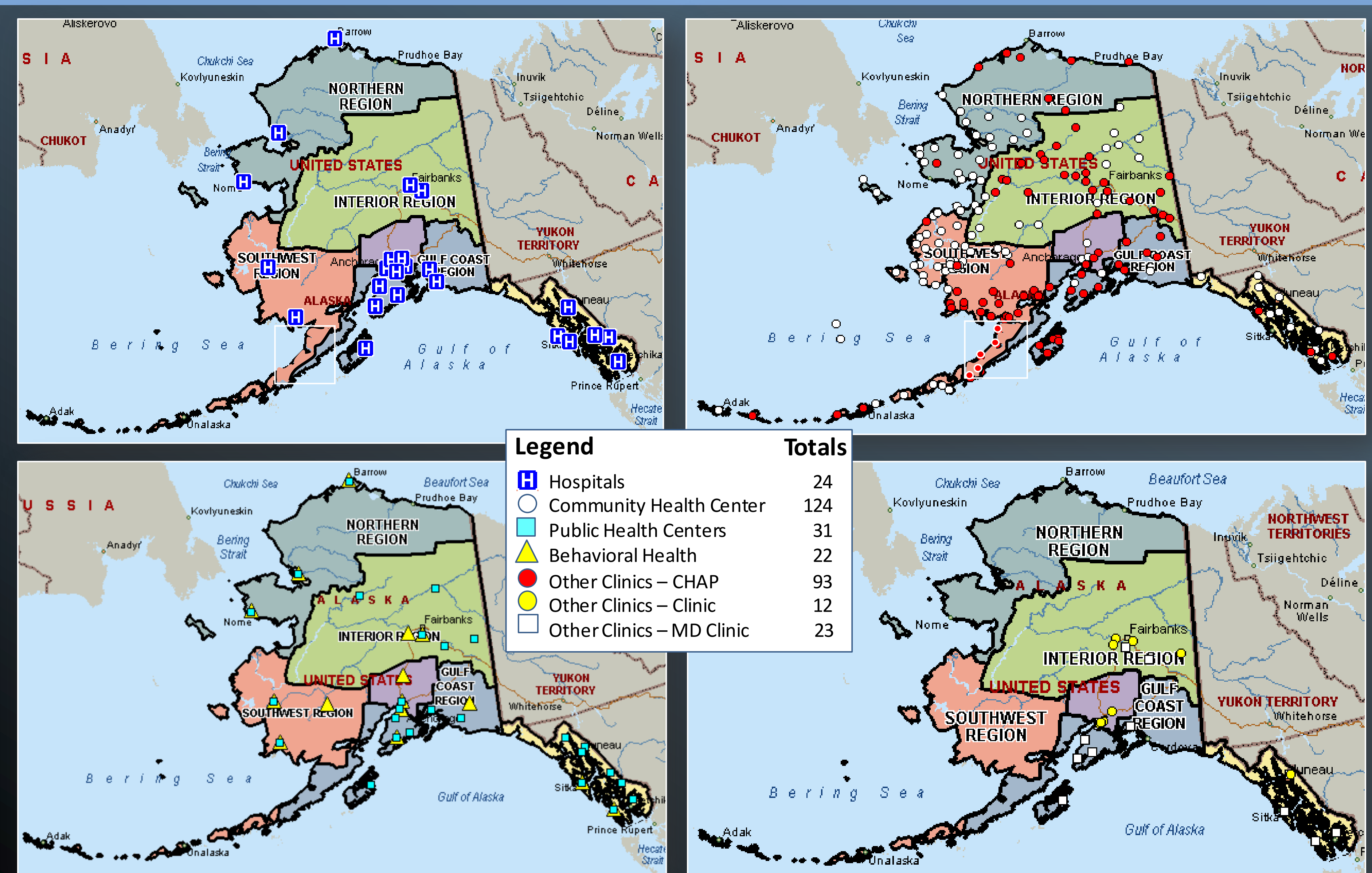
In 2007, there were ~ 9,000 discharges for children

- 95% are cared for in Alaska's hospitals; 5% receive care outside of the State
- By 2020, there will be 9,700 discharges per year



Source: ASHNHA data for 2005-2007, Solucient data for out-of-state discharges.

Health Care Resources Available Today



Source: Alaska Department of Labor and Workforce; Alice Rarig; KSA Analysis

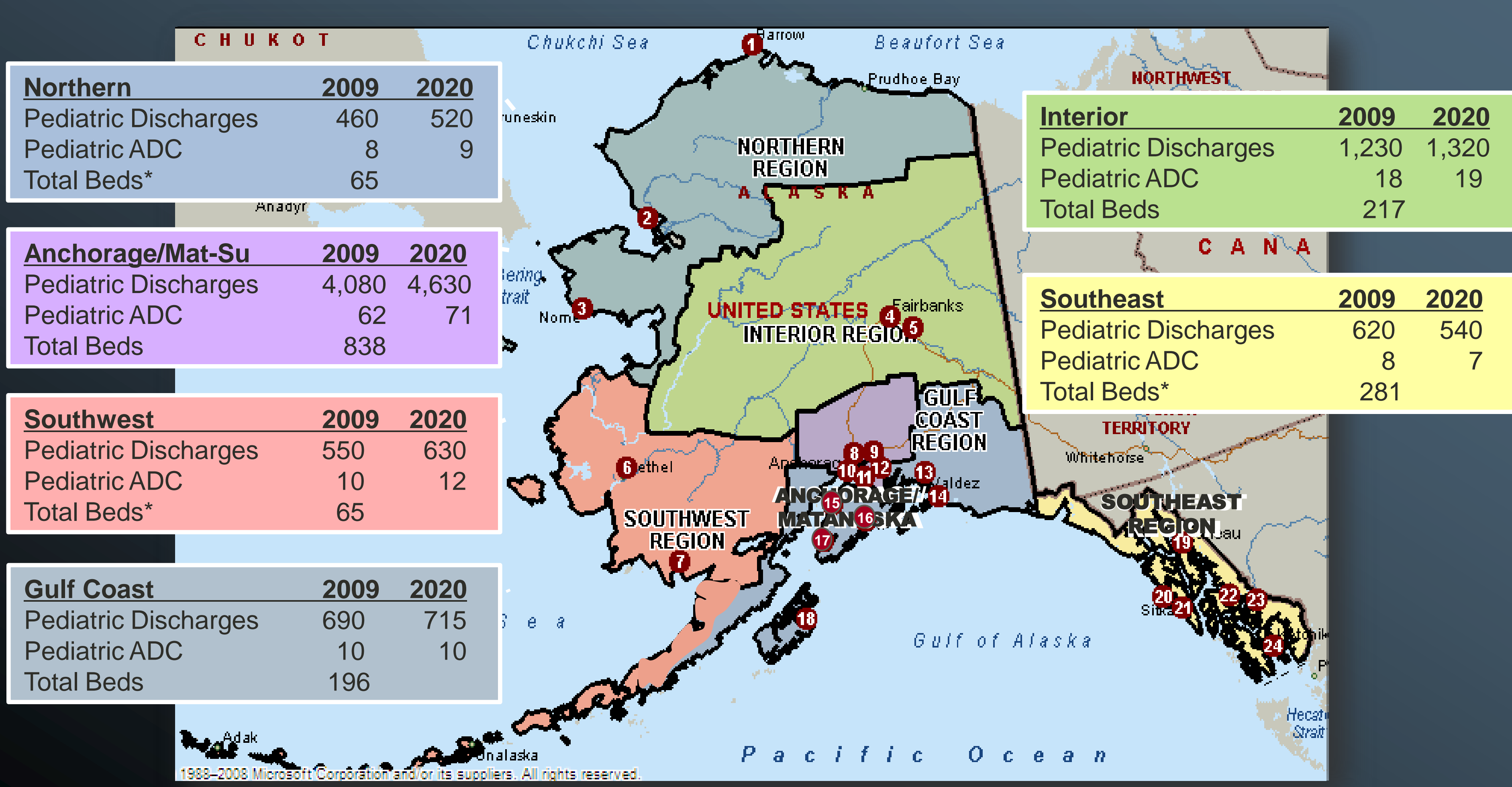
Health Care Resources Available Today

In 2009, there were 24 hospitals in Alaska; 8 providing pediatric services; 13 designated as Critical Access Hospitals

Hospitals Name	# Licensed Beds
1 - *Samuel Simmonds Memorial Hospital*	14
2 - *Maniilaq Health Center*	17
3 - *Norton Sound Regional Hospital*	36
4 - Bassett Army Community Hospital	24
5 - Fairbanks Memorial Hospital	207
6 - Yukon-Kuskokwim Delta Regional Hosp	54
7 - *Kanakanack Hospital (Bristol Bay Area)*	15
8 - Mat-Su Regional Medical Center	74
9 - Alaska Native Medical Center	150
10 - Providence Alaska Medical Center	364
11 - U.S. Air Force Regional Hospital	64
12 - Alaska Regional Hospital	129
13 - *Providence Valdez Medical Center*	21
14 - *Cordova Community Medical Center*	23
15 - Central Peninsula General Hospital	108
16 - *Providence Seward Medical Center*	6
17 - South Peninsula Hospital	47
18 - *Providence Kodiak Island Medical Ctr.*	25
19 - Bartlett Regional Hospital	65
20 - *Sitka Community Hospital*	27
21 - Searhc Mt. Edgecumbe Hospital	27
22 - *Petersburg Medical Center*	27
23 - *Wrangell Medical Center*	22
24 - *Ketchikan General Hospital*	54
TOTAL BEDS	**1,600**

Alaska Market – Demand Implications

Future kids in beds ~ 130; most in Anchorage



Northern	2009	2020
Pediatric Discharges	460	520
Pediatric ADC	8	9
Total Beds*	65	

Anchorage/Mat-Su	2009	2020
Pediatric Discharges	4,080	4,630
Pediatric ADC	62	71
Total Beds	838	

Southwest	2009	2020
Pediatric Discharges	550	630
Pediatric ADC	10	12
Total Beds*	65	

Gulf Coast	2009	2020
Pediatric Discharges	690	715
Pediatric ADC	10	10
Total Beds	196	

Interior	2009	2020
Pediatric Discharges	1,230	1,320
Pediatric ADC	18	19
Total Beds	217	

Southeast	2009	2020
Pediatric Discharges	620	540
Pediatric ADC	8	7
Total Beds*	281	

* Region contains no dedicated pediatric beds

Source: KSA Analysis based on ASHNHA data for 2005-2007.

Existing Pediatric Subspecialists
Supplementary Subspecialty Clinics from Out-of-State

M Metabolic Clinic
G Genetics Clinic
★ Neuro-developmental/Autism Clinic

Major Hospitals Providing Care to Alaska's Children

- 96% of pediatric census in eight hospitals
- 90% in Anchorage

Hospital	2003 Days	2004 Days	2005 Days	ADC (Avg)
Providence Alaska Medical Center - Anchorage	24,446	24,271	24,785	67.2
Alaska Native Medical Center – Anchorage	9,314	8,302	9,092	24.4
Fairbanks Memorial Hospital	5,619	5,251	5,487	15.0
Alaska Regional Hospital – Anchorage	3,169	2,940	2,857	8.2
USAF 3rd Medical Group – Elmendorf	1,710	1,885	1,514	4.7
Mat-Su Regional Medical Center – Palmer	1,335	1,562	1,641	4.2
Central Peninsula Hospital – Soldotna	1,661	1,342	1,278	3.9
Bartlett Regional Hospital – Juneau	1,155	1,079	1,223	3.2
Ketchikan General Hospital	793	769	856	2.2
Providence Kodiak Island Medical Center	438	466	414	1.2
South Peninsula Hospital - Homer	360	348	267	0.9
Sitka Community Hospital	117	100	117	0.3
Providence Valdez Medical Center	42	61	76	0.2
Wrangell Medical Center	30	38	17	0.1
Petersburg Medical Center	33	27	24	0.1
Providence Seward Medical Center	9	12	9	0.0
Cordova Community Medical Center	24	0	0	0.0
Subtotal	***50,255***	***48,453***	***49,657***	***135.7***
Alaska Children in Washington Hospitals	2,430	3,041	3,355	8.1
Total	**52,685**	**51,494**	**53,012**	**143.8**

Note: Excludes six hospitals that do not report data to the state.
Source: ASHNHA data for 2003-2005; KSA Analysis

Historical and Future Discharges – Ages 0-17

Inpatient Service Line	2005	2006	2007	2005-2007 Change	2005-2007 % Change	2020	2007-2020 Change	2007-2020 % Change
Burn/Trauma	115	102	136	21	18%	129	(7)	-5%
Medical Specialties	2,823	2,621	3,023	200	7%	3,176	153	5%
Allergy/Immunology	50	44	26	(24)	-48%	44	18	70%
Dermatology	7	14	79	72	1029%	37	(42)	-53%
Endocrinology	279	244	271	(8)	-3%	292	21	8%
General Medicine	632	643	733	101	16%	736	3	0%
Gastroenterology	270	260	304	34	12%	306	2	1%
Cardiology	44	45	68	24	53%	57	(11)	-16%
Neurology	190	191	233	43	23%	229	(4)	-2%
Hematology/Oncology	67	96	108	41	61%	99	(9)	-8%
Pulmonary	1,271	1,088	1,270	(1)	0%	1,399	129	10%
Rehabilitation	10	4	7	(3)	-30%	8	1	9%
Rheumatology	9	7	3	(6)	-67%	7	4	117%
Surgical Specialties	1,321	1,351	1,522	201	15%	1,524	2	0%
Cardiovascular Surgery	10	22	26	16	160%	20	(6)	-23%
Interventional Cardiology, EP	6	10	13	7	117%	10	(3)	-21%
ENT	186	179	201	15	8%	205	4	2%
General Surgery	493	478	531	38	8%	547	16	3%
Nephrology	130	116	108	(22)	-17%	130	22	20%
Neurosurgery	61	61	54	(7)	-11%	64	10	18%
Oncology - Surgical	2	4	3	1	50%	3	0	11%
Ophthalmology	18	23	12	(6)	-33%	19	7	62%
Orthopedic Surgery	340	385	394	54	16%	407	13	3%
Plastic Surgery	11	7	19	8	73%	14	(5)	-27%
Spine Surgery	19	19	24	5	26%	21	(3)	-11%
Thoracic Surgery	19	14	24	5	26%	20	(4)	-17%
Transplant	0	2	5	5	-	2	(3)	-54%
Urology	18	14	29	11	61%	22	(7)	-23%
Vascular Surgery	1	3		(1)	-100%	1	1	-
OB/GYN (Mother <18 yrs)	383	397	358	(25)	-6%	367	9	3%
Neonatology	3,060	3,673	3,541	481	16%	3,866	325	9%
Dental	18	15	16	(2)	-11%	18	2	14%
Behavioral Health	473	358	277	(196)	-41%	369	92	33%
Total	**8,192**	**8,518**	**8,873**	**681**	**8%**	**9,448**	**575**	**6%**

Existing Supply – What you have today…

There are 247 physicians providing pediatric care in Alaska today

- 125 primary care
- 122 subspecialists
  - 38 of the 122 subspecialists also treat adults
- 17 visiting specialists

Specialties	Alaska Total	Visiting Specialists
Primary Care	125	
Medical Specialties	40	13
Surgical Specialties	24	4
Neonatology/Perinatology	9	
Dentistry (Pediatric)	21	
Hospital-Based Subspecialties	28	
Subtotal Pediatric Subspecialists	122	17
Total	**247**	**17**

Source: Alaska State Medical Association, 2009. Hospital websites, Provider e-mails, KSA analysis.

Existing Pediatric Subspecialists – By Region

Specialties	Anchorage/ Mat-SU	Gulf Coast	Interior	Northern	Southeast	Southwest	Alaska Total	Visiting DR's
Primary Care	**68**	**14**	**20**	**1**	**16**	**6**	**125**	
Medical Specialties	**28**	**9**			**3**		**40**	**13**
Adolescent Medicine	1						1	
Allergy/Immunology	4						4	
Cardiology	4						4	
Dermatology		1					1	
Endocrinology	1						1	**4**
Gastroenterology								**1**
Genetics	3						3	**4**
Hematology/Oncology	2						2	**1**
Neurology	1						1	**1**
Neurodevelopmental	1						1	**1**
Psychiatry	9	8			3		20	
Pulmonology	1						1	
Rehabilitation								
Rheumatology								**1**
Sports Medicine	1						1	

Source: Alaska State Medical Association, 2009. Hospital websites, Provider e-mails, KSA analysis.

Existing Pediatric Subspecialists – By Region

Specialties	Anchorage/ Mat-Su	Gulf Coast	Interior	Northern	Southeast	Southwest	Alaska Total	Visiting DR's
Surgical Specialties	**16**	**8**					**24**	**4**
Cardiac and Vascular Surgery								
ENT	3	1					4	
General Surgery	2	2					4	
Nephrology	1						1	**2**
Neurosurgery								
Ophthalmology	2	1					3	
Orthopedic Surgery	1	3					4	**1**
Plastic Surgery/OMF	4						4	
Urology	3	1					4	**1**
Neonatology/Perinatology	**9**						**9**	
Dentistry	**16**		**3**		**1**	**1**	**21**	
Hospital-Based Specialties	**26**		**1**		**1**		**28**	
Anesthesiology	4						4	
Emergency Medicine								
Hospitalist	10				1		11	
Intensivist	9						9	
Radiology	3		1				4	
Total	**163**	**31**	**24**	**1**	**21**	**7**	**247**	**17**

Source: Alaska State Medical Association, 2009. Hospital websites, Provider e-mails, KSA analysis.

NICU Level and Births for Major Hospitals

Hospital	2008 Total Births	NICU
Providence Alaska Medical Center	2,714	Level II and III
Alaska Native Medical Center	1,493	Level IIb
Fairbanks Memorial Hospital	1,168	Level II
Elmendorf AFB Hospital	808	
Alaska Regional Medical Center	807	Level IIb
Bassett Army Community Hospital	772	
Mat-Su Regional Hospital	712	
Bartlett Regional Hospital	380	
Central Peninsula Hospital	379	

Recommendations: Pediatric Distribution Plan

Vision and Goals

Vision:

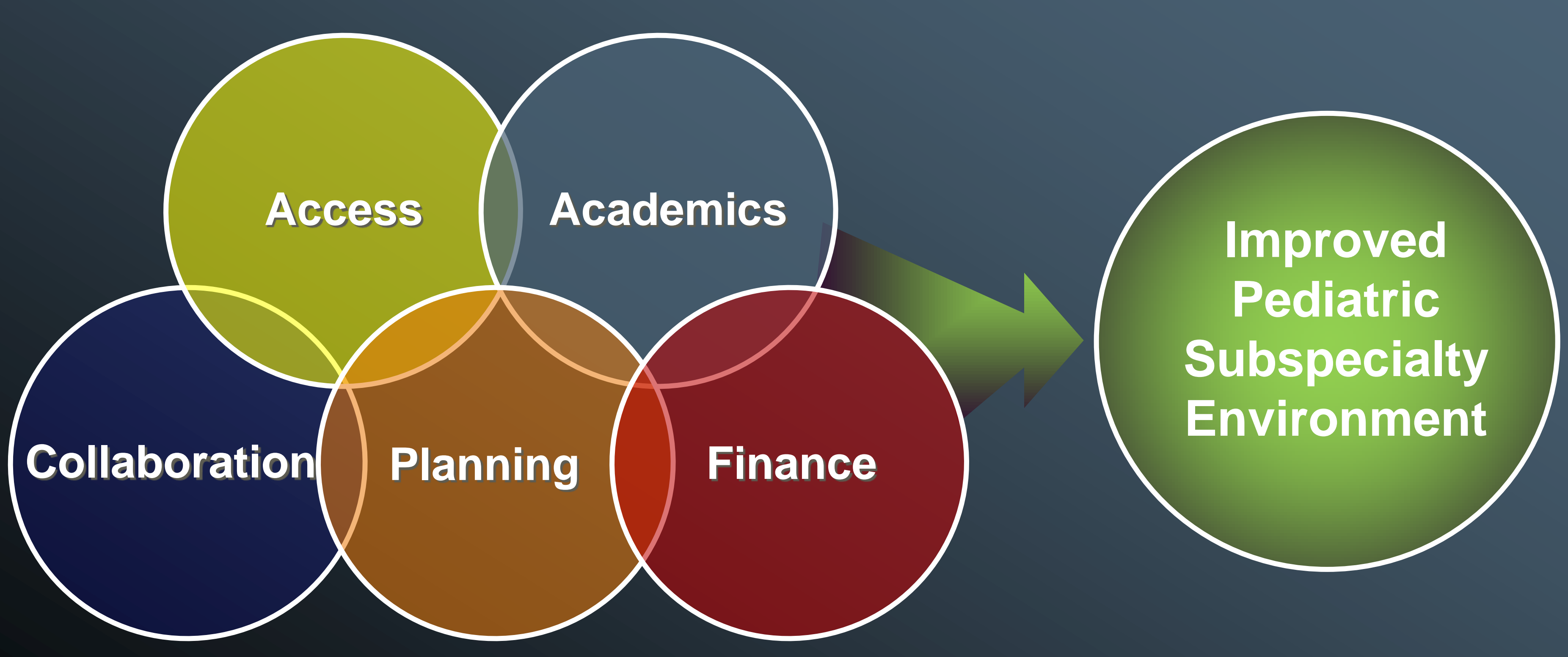
- An improved pediatric subspecialty environment

Goals:

- Provide complex, quality care as close to home as possible
- Maximize the use of subspecialty services between and across the systems of care in place today
- Improve access and continuity of care
- Preserve a strong respect for all institutions and individuals – patients, families and providers
- Advance a model(s) that is financially viable and sustainable over the long-term

Strategic Themes

Opportunity to create a comprehensive and cohesive “Pediatric Subspecialty Provider Community”



Macro Themes

Three macro themes drive top 5 out of 12 strategic recommendations and are the critical path to advancing the plan

Top 5 Strategic Recommendations

1. Increase the number of providers and distribution of pediatric subspecialty care in Alaska

   Rationale: Need to improve access and quality of pediatric subspecialty care

   - Use distribution model to prioritize recruitment targets
   - Collaborate on provider recruitment initiatives across institutions
   - Build capabilities to complement primary care/medical home with care/ case management for children

Top 5 Strategic Recommendations

2. Build an infrastructure to extend subspecialists at satellite clinics

   Rationale: Need to ensure continuity of care without providers on the ground

   - Enhance depth of telemedicine capabilities
   - Establish a physician consult line/referral access by phone
   - Use EMRs to provide continuity of care – identify potential interface solutions to link different systems
   - Increase training of extenders to enhance local knowledge
     - Anchors need to be care aides/social workers/licensed nurses
     - Need to create a system of care/care team
     - Sponsor a more disease-based care model
   - Provide ongoing training (CME) for pediatricians on topics of interest

Top 5 Strategic Recommendations

3. Create a pool of pediatric subspecialty-focused NP/PA providers to augment access to physicians

Rationale: Given the historical difficulty with recruiting multiple subspecialists, recruitment and use of NP/PA providers will help improve access to care and coverage for subspecialists limited to 1-2 on the ground

- Actively recruit NP/PAs to work in tandem with physicians – seek strong relationship connection
- Encourage and support NP/PA/physician pairing to develop subspecialty capabilities
- Seek and support learning opportunities for NP/PAs – specialty conferences, interaction with other specialty resources

Top 5 Strategic Recommendations

4. Define a stronger culture of shared accountability and action

Rationale: Need to create a more collaborative environment , ensuring that each institution retains a financial position that allows continued investment in people, programs, technology and facilities

- Increase transparency and communication around pediatric subspecialty services
- Formalize participation between ANMC, TCHAP and broader constituencies
  - Credentialing at multiple hospitals

Top 5 Strategic Recommendations

5. Advocate for increased state and federal sponsorship

   Rationale: Need some breaks economically – need to increase overall funding support beyond hospital margins

   - Re-evaluate and modify Medicaid professional fee schedules for pediatric subspecialists (rates, outreach, telemedicine, etc.)
   - Create a special budget allocation at the State level for those specifically identified in the manpower plan as high priority for the State
   - Define and develop a business case for securing funds for infrastructure requirements (e.g., telemedicine, electronic interface between EMRs, physician consult phone lines, etc.)
   - Conduct a cost/benefit analysis, highlighting benefits of providing care in Alaska vs. out-of-state

Additional Strategic Recommendations

6. Commission a Pediatric Distribution Plan Oversight Committee

   Rationale: Need a dedicated body that will act on behalf of all institutions and be responsible for prioritizing and coordinating implementation of the distribution plan

   - Identify individuals to participate on the committee
   - Continue to engage individuals across the state and across specialties

7. Establish a Statewide Access Center

   Rationale: Need to improve communication and coordination of care delivery

   - Develop a coordinated and comprehensive approach to outreach (e.g., locations, forms, data/times by specialty)
   - Comprehensive tracking of patients (inpatient/outpatient, location, air/ground transport)

Strategic Recommendations

8. Deliberately manage future relationships with out-of-state providers

   Rationale: Need to provide right care in right place at the right time

   - Send RFP to children's hospitals to identify best opportunity for long-term relationships; this may vary by specialty
   - Establish standards of care rotations, transport, initial out-of-state visits and follow up

9. Develop a more impactful, broad-based approach to raise money

   Rationale: Need to create a forum for pediatric fundraising that all institutions can be a part of with a goal of moving beyond the children's miracle network

   - Collaborate with/reorganize existing foundations
   - Sponsors access center
   - Provides support for research initiatives
   - Provides grants, gifts to provider community

Additional Strategic Recommendations

10. Establish a pediatric-focused Research Institute

    Rationale: Need to provide a venue to retain/attract physicians and advance scientific discovery focused on improving the health of children

    - Explore opportunities with UofA and other major universities/AMCs
    - Support local physicians (grant writing, stipends, facilities)

11. Create a stronger academic culture within the pediatric health care environment

    Rationale: need to attract and retain talent and philanthropy to a more shared cause

    - Explore residency and fellowship expansion initiatives
    - Create a standard level of expectations among the various institutions as to the resident and fellow experience/role
    - Strengthen relationships and communication with WWAMI and UofA

Additional Strategic Recommendations

12. Expand involvement of the pediatric community with current health care initiatives and maximize use of in-state resources

Rationale: Need to reset expectations and reshape the delivery of pediatric subspecialty care

- Understand current workforce initiatives and ensure they include the long-term goals for delivering pediatric subspecialty care
- Routinely communicate and involve others in the implementation of the plan through pediatric grand rounds
- Create a forum for soliciting suggestions/feedback on implementation (e.g., several individuals in state have experience from other institutions and could assist in advancing the recommendations).

Recommendation # 1: Pediatric Distribution Model

Areas of Focus

(Without burden of history and politics…you will need)

1. Fundamental Subspecialties – “Provide well”
   - NICU III, PICU, Anesthesia
   - General surgery, orthopedics, ENT
   - Cardiology, ID, GI, neurology, pulmonary, oncology
2. Comprehensive Subspecialties – “Provide for”
   - Cardiac surgery, neurosurgery, transplant
   - Hem-Onc (major), genetics
   - Structural relationship with 2-3 layers, etc.
3. Basic Safety Net
   - 1 trauma, several ERs
4. Neonatal support for OB
   - Several with varying levels by delivery site (NICU)

Approach – Determining "Provide Well" And "Provide For"

1. Identify and assess existing Physician Supply by Subspecialty
   - Hospital Medical Staff lists, 80+ Interviews, Executive Team review

2. Articulate Range of Future Physician Need
   - Physician productivity at MGMA rates (25%, 50%, 75%)
   - Population-to-physician ratios
   - Interview perspectives on physician need

3. Develop Draft 2020 Planning Target of Physician Need by Subspecialty

4. Define Draft Physician Delivery Model based on Criteria

Physician Needs Assessment – Summary

By 2020, ~140 to 180 pediatric subspecialty providers will be needed in the State

- Existing gaps are widened by approximately 10% growth in population over next five years
- Select specialties will continue to rely on providers that treat adults and children

Pediatric Subspecialty Group	2009 Physicians that treat children P + A = T	Draft Planning Target 2020
Medical Specialties	25 + 15 = 40	47-68
Surgical Specialties	5 + 19 = 24	19-30
Neonatology/Perinatology	7 + 2 = 9	15-16
Dentistry (Pediatric)	21 + 0 = 21	21-23
Hospital-Based Physicians	26 + 2 = 28	36-46
Total	**84 + 38 = 122**	**138-183**

P = Providers that provide care to children, A = Providers that provide care to adults and children, T = total number of Providers; Details to follow and in Appendix

Source: Alaska State Medical Association, 2009. Hospital websites, provider, e-mails, KSA analysis. MGMA Productivity based on 2008. Physician-to-population ratios based on KSA experience.

Physician Needs Assessment – Details Surgical Specialties

Pediatric Subspecialty	2009 Physicians That Treat Children (# That Treat Adults Also) P + A = T	2020 Range of Physician Needs			KSA Suggested Planning Target
		At MGMA Productivity Quartiles	At Physician: Population Ratios	Based on Interviews	
Surgical Specialties					
Cardiac Surgery	-	-	1	0-1	-
ENT*	1 + 3 = 4	2-10	0-3	4	4-6
General Surgery (Pediatric)	2 + 2 = 4	1-2	2-6	2-4	3-4
Nephrology	0 + 1 = 1	-	1-2	2	1-2
Neurosurgery	-	-	2	0-1	-
Ophthalmology	0 + 3 = 3	1-5	0-3	2-3	2-3
Orthopedics*	1 + 3 = 4	2-6	1-3	0-3	2-4
Plastic Surgery/Oral Maxillofacial	0 + 4 = 4	-	Not Avail	4	4
Spine Surgery	-	-	Not Avail	-	-
Transplant	-	-	Not Avail	-	-
Urology	1 + 3 = 4	-	0-2	2-3	2-4
Vascular Surgery	-	-	Not Avail	-	-
Surgical Specialties Subtotal	**5 + 19 = 24**	**Not Avail**	**Not Avail**	**17-27**	**19-30**

* Indicated subspecialty likely to be provided with physician that treats both adults and children
Source: Alaska State Medical Association, 2009. Hospital websites, provider, e-mails, KSA analysis. MGMA Productivity based on 2008. Physician-to-population ratios based on KSA experience.

Physician Needs Assessment – Details Other Subspecialties

Pediatric Subspecialty	2009 Physicians That Treat Children (# That Treat Adults Also) P + A = T	2020 Range of Physician Needs			KSA Suggested Planning Target
		At MGMA Productivity Quartiles	At Physician: Population Ratios	Based on Interviews	
Other Subspecialties					
Neonatology	7 + 0 = 7	2-3	10-11	10-12	10-11
Perinatology	0 + 2 = 2	Not Avail	Not Avail	4 -5	5
Dentistry	21 + 0= 21	Not Avail	Not Avail	21-23	21-23
Anesthesiology	4 + 0 = 4	Not Avail	Not Avail	2-4	2-4
Critical Care (Intensivist)	9 + 0 = 9	Not Avail	Not Avail	10-12	10-12
Hospitalist (Pediatric)	11 + 0 = 11	2-7	Not Avail	20-30	22-26
Radiology	2 + 2 = 4	Not Avail	Not Avail	2-4	2-4
Other Subspecialties Subtotal	**54 + 4 = 58**	**Not Avail**	**Not Avail**	**69-90**	**72-85**
Total	**84 + 38 = 122**	**Not Avail**	**Not Avail**	**98-131**	**138-183**

Source: Alaska State Medical Association, 2009. Hospital websites, provider, e-mails, KSA analysis. MGMA Productivity based on 2008. Physician-to-population ratios based on KSA experience.

Physician Needs Assessment – Details Medical Specialties

Pediatric Subspecialty	2009 Physicians That Treat Children (# That Treat Adults Also) P + A = T	2020 Range of Physician Needs			KSA Suggested Planning Target
		At MGMA Productivity Quartiles	At Physician: Population Ratios	Based on Interviews	
Medical Specialties					
Adolescent Medicine	1 + 0 = 1	Not Avail	Not Avail	2	2
Allergy/Immunology*	0 + 4 = 4	2-22	1	4	4-6
Cardiology	4+ 0 = 4	-	5-6	4	4
Dermatology *	0 + 1 = 1	2-12	Not Avail	1-2	2-4
Endocrinology	1 + 0 = 1	1-4	2-3	2-3	2-3
Gastroenterology	-	0-1	1-3	2	2
Genetics	0 + 3 = 3	Not Avail	Not Avail	<1 -1	<1
Hematology/Oncology	2 + 0 = 2	-	4-6	2-4	2
Neurology*	1 + 0 = 1	0-1	3	2+	2-3
Neurodevelopmental	1 + 0 = 1	Not Avail	Not Avail	2-4	2-4
Psychiatry	13 + 7 = 20	2-4 (inpatient)	22-33**	High	22-33
Pulmonology	1 + 0 = 1	1	1-3	4	2-3
Rehabilitation (Inpatient)	-	-	Not Avail	-	-
Rheumatology	-	-	-	1	-
Sports Medicine*	1 + 0 = 1	Not Avail	Not Avail	1	1
Medical Specialties Subtotal	**25 + 15 = 40**	**Not Avail**	**Not Avail**	**28-33+**	**47-68**

* Indicated subspecialty likely to be provided with physician that treats both adults and children **Psychiatry needs based on HRSA definition of a Health Professional shortage area ratio of 1 provider: 10,000 children, at 100-130% . Source: Alaska State Medical Association, 2009. Hospital websites, provider, e-mails, KSA analysis. MGMA Productivity based on 2008. Physician –to-population ratios based on KSA experience.

Physician Needs – Proposed In-State Prioritization

Proposed prioritization for strategic investment and recruitment

0 to 3 Years	*3 to 7 Years*	*7 to 10+ Years*
IMMEDIATE greatest need	**SHORT-TERM** flexible and strategic	**LONG-TERM** visionary, potential for new services

IMMEDIATE (0 to 3 Years)
- Child Psychiatry
- Endocrinology
- Neonatology/Perinatology
- Neurodevelopmental
- Pediatric Gastroenterology
- Pediatric Pulmonary

SHORT-TERM (3 to 7 Years)
- Adolescent Medicine
- Dermatology**
- Pediatric General Surgery
- Pediatric Hospitalists
- Pediatric Nephrology
- Pediatric Neurology
- Pediatric Radiology
- Pediatric Urology

LONG-TERM (7 to 10+ Years)
- Allergy
- ENT
- Ophthalmology
- Orthopedics/Sports Med**
- Pediatric Anesthesia
- Pediatric Cardiology
- Pediatric Intensivists
- Pediatric Medical Oncology
- Plastic Surgery/Oral Maxillofacial**

** Likely provided by a physician that treats patients of all age

Criteria for Distribution

Centralized ⟷ Decentralized

Aspect	"Provide For" Out-of-State Physicians	"Provide Well" In-State Physicians		
		Centralized	Centralized with Outreach	Potential for Decentralization
Example Specialties	*Burn/Trauma, Neurosurgery, Transplant*	*GI, Neonatology, Oncology*	*Cardiology, Neurology*	*Behavioral Health, Dental*
Minimum # of Phys to support	<1 physician	< 3 physicians	3-5 physicians	Chance of more than 5 physicians
Degree of Dedicated, Capital-intensive Resources	Very large capital investment for fully-dedicated resources	Large capital investments that supports few sites in the state	Some dedicated resources but can be portable or duplicated	Minimal dedicated resources or highly-portable equipment
Level of multidisciplinary care available onsite	Requires multiple subspecialists or resources in one location to provide care		Minimal cross-specialty consultation, may be separate visits	Minimal/no cross-specialty consultation, may be provider-to-provider
Degree of Recruitment Difficulty	Very difficult – national shortage	Very challenging to recruit to AK	Challenging but realistic to recruit critical mass	Reasonable to recruit needed physicians

Distribution by Subspecialty Services

"Provide For" Out-of-State Physicians, Some Outreach Clinics in Alaska	"Provide Well" In-State Physicians		
	Centralized	Centralized with Outreach	Potential Decentralization
Behavioral Health – Very Specialized Care	Pediatric Hospitalists, Intensivists, Radiologists, Anesthesiologists	Allergy/Immunology**	Child Psychiatry
Cardiac Surgery**	Adolescent Medicine	Pediatric Cardiology	Pediatric Dentistry
Interventional Cardiology and Electrophysiology	Dermatology**	Endocrinology**	
Genetics *	Pediatric Gastroenterology	ENT**	
Neurosurgery**	Pediatric General Surgery	Ophthalmology**	
Surgical Oncology	Neonatology/Perinatology		
Inpatient Rehabilitation	Pediatric Nephrology		
Rheumatology *	Neurodevelopmental		
Spine Surgery	Pediatric Neurology		
Transplant**	Pediatric Medical Oncology		
Vascular Surgery**	Plastic Surgery/Oral Maxillofacial**		
	Pediatric Pulmonary		
	Orthopedics/Sports Medicine**		
	Pediatric Urology		

* Out-of-state care with outreach clinics in Alaska
** Likely provided by a physician that treats patients of all age
Note: Planning assumes a portion of care for specialties in the "Provide For" Out-of-State physicians will continue to be provided in Alaska based on local physicians' comfort level with treating children. Individual cases and emergencies will be handled as required.

Primary Sites of Care

12 locations across the State with full-time or outreach clinics by specialty based on need and provider availability

- Goal is to establish consistent clinic/outreach access
- Independent physician practices may maintain other sites as desired

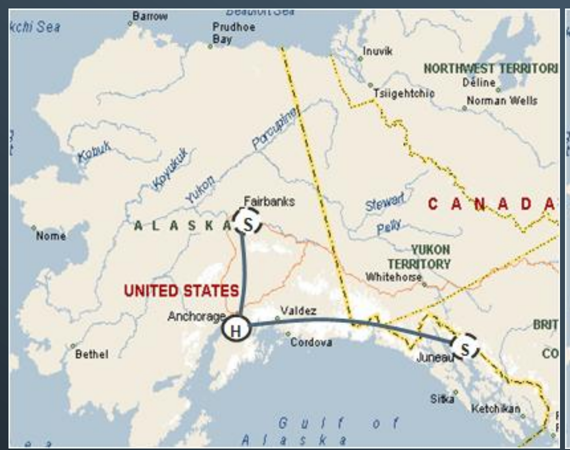
Criteria for Subspecialty Locations

Hubs and satellites will vary by subspecialty

Site Level	Symbol	Definition
Hub	H	■ Full-time permanent subspecialty providers ■ Large population base/located in more urban geography ■ Includes major acute care and ambulatory services ■ High technology platform ■ Low # of physician's (N < 3)
Satellite 1	S	■ Serves as regional access point ■ May/may not have full time permanent providers ■ Moderate population base, but more rural than Hub ■ Infrastructure to support outreach ■ Most likely linked to a primary care facility
Satellite 2	S	■ Sub regional access point ■ Small population base/rural ■ Must meet minimum infrastructure requirements to support access to subspecialists – anticipate greater use of technology (phone consultations/teleheath) ■ Outpatient focused

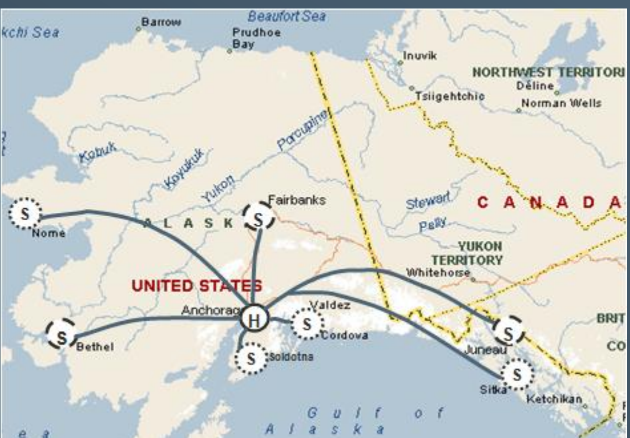
Distribution Model – Overview
Summary of locations and type of model by Subspecialty

Centralized



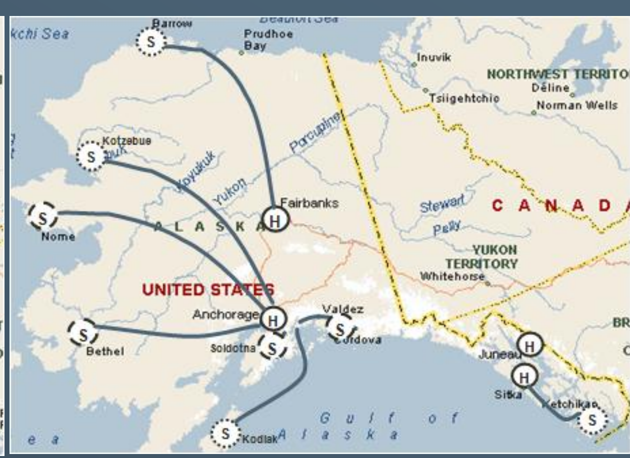
- Hospital-based specialties
- Adolescent Medicine
- Dermatology**
- Pediatric Gastroenterology
- Pediatric General Surgery
- Neonatology/Perinatology
- Pediatric Nephrology
- Neurodevelopmental
- Pediatric Neurology
- Pediatric Medical Oncology
- Plastic Surgery/Oral Maxillofacial**
- Pediatric Pulmonary
- Orthopedics/Sports Medicine**
- Pediatric Urology

Centralized with Outreach



- Allergy/Immunology**
- Pediatric Cardiology
- Endocrinology**
- ENT**
- Ophthalmology**

Potential for Decentralization



- Child Psychiatry
- Pediatric Dentistry

Key

Site Level	Symbol	Definition
Hub	H	• Full-time, permanent subspecialty providers
Satellite 1	S	• Regional access point
Satellite 2	S	• Sub regional access point

Distribution Model – Details "Provide Well" Centralized Services

- Specialists centralized in Anchorage with satellite clinics in Fairbanks and Juneau
- Includes outreach four times/year to satellite clinics and incorporates telehealth for Dermatology and Pulmonary services

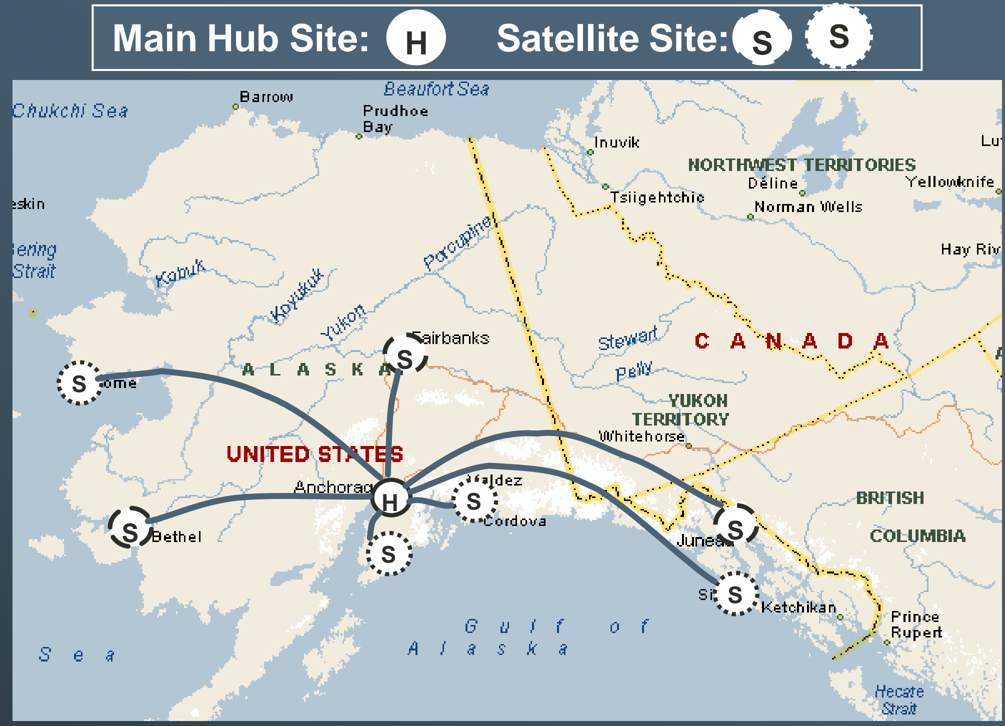
Service/Specialty	# Phys 2009	# Phys 2020	Priority Level
Adolescent Medicine	1 + 0 = 1	2	Short-term
Dermatology	0 + 1 = 1	2-4	Short-term
Pediatric Gastroenterology	-	2	Immediate
Pediatric General Surgery	2 + 2 = 4	3-4	Short-term
Pediatric Nephrology	0 + 1 = 1	1-2	Short-term
Pediatric Neurology	1 + 0 = 1	2-3	Immediate
Neurodevelopmental	1 + 0 = 1	2-4	Immediate
Pediatric Hematology/Oncology	2 + 0 = 2	2	Long-term
Plastic Surgery/Oral Maxillofacial	0 + 4 = 4	4	Long-term
Pediatric Pulmonology	1 + 0 = 1	2-3	Immediate
Orthopedics/ Sports Medicine	1 + 3 = 4 1 + 0 = 1	3-5	Long-term
Pediatric Urology	1 + 3 = 4	2-4	Short-term

Note: Ability and frequency of outreach to satellite sites is dependent on number of physicians and call coverage demands.

Immediate   Short-term   Long-term

Distribution Model – Details "Provide Well" Centralized with Outreach Services

- Centralized in Anchorage with multiple satellites and more frequent outreach
- Frequency assumes physician recruitment at high end of range



Service/Specialty	# Phys 2009	# Phys 2020	Priority Level	S	S
Allergy/Immunology	0 + 4 = 4	4-6		6 times/yr	4 times/yr
Cardiology	4 + 0 = 4	4		6 times/yr	4 times/yr
Endocrinology	1 + 0 = 1	2-3		4 times/yr	None
ENT	1 + 3 = 4	4-6		4 times/yr	None
Ophthalmology	0 + 3 = 3	2-3		4 times/yr	None

Immediate Short-term Long-term

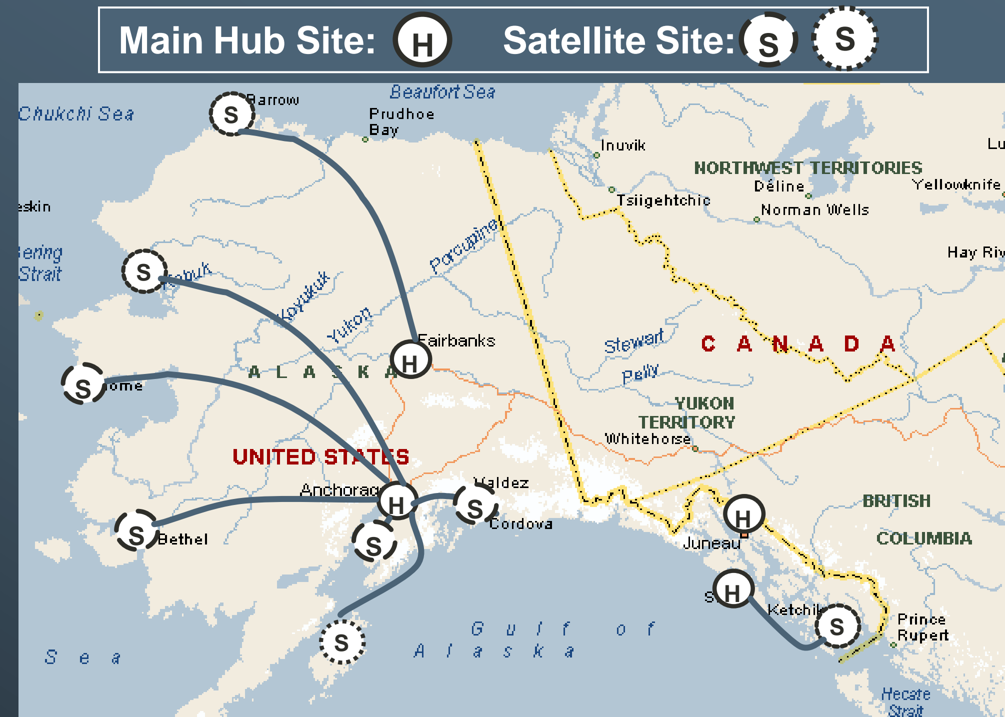
Note: Ability and frequency of outreach to satellite sites is dependent on number of physicians and call coverage demands. Depending on recruitment success, out-of-state providers may need to continue to fill the gap.

Distribution Model – Details "Provide Well" Potential for Decentralization

Behavioral Health and Dental will have a mix of centralized and decentralized services

- Inpatient child BH to remain in existing locations –capacity sufficient to meet future needs
- Outpatient child psychiatrists centralized at hubs with potential for outreach and consultation services (telehealth)
- Dental surgical services and treatment of children with special needs to remain at Hubs; specialty can be more distributed with consultative services; issue around accepting Medicaid patients

Behavioral Health and Dental have increased need for preventative and routine care (see appendix for details)



Service/Specialty	# Phys 2009	# Phys 2020	Priority Level	S	S
Behavioral Health/Psychiatry	13 + 7 = 20	22 – 33		6 times/ year	2 times/ year
Pediatric Dental	21 + 0 = 21	21 – 23		2 times/ year	1 time/ year

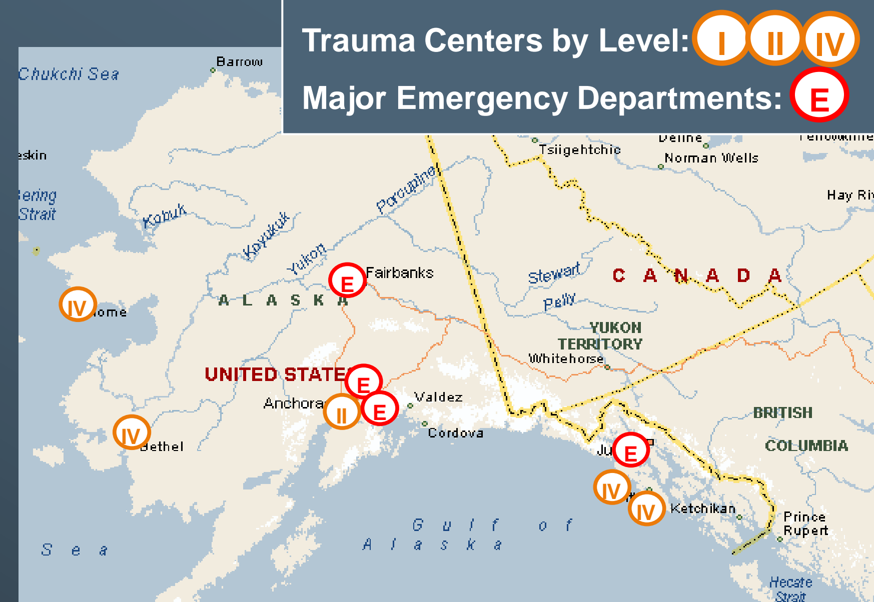
Immediate Short-term Long-term

Note: Ability and frequency of outreach to satellite sites is dependent on number of physicians and call coverage demands.

Distribution Model – Details Basic Safety Net

Maintain Basic Safety Net:

- Continue to send Level I to Harborview Medical Center in Seattle
- Potential to recruit a pediatric emergency physician to support in-state care



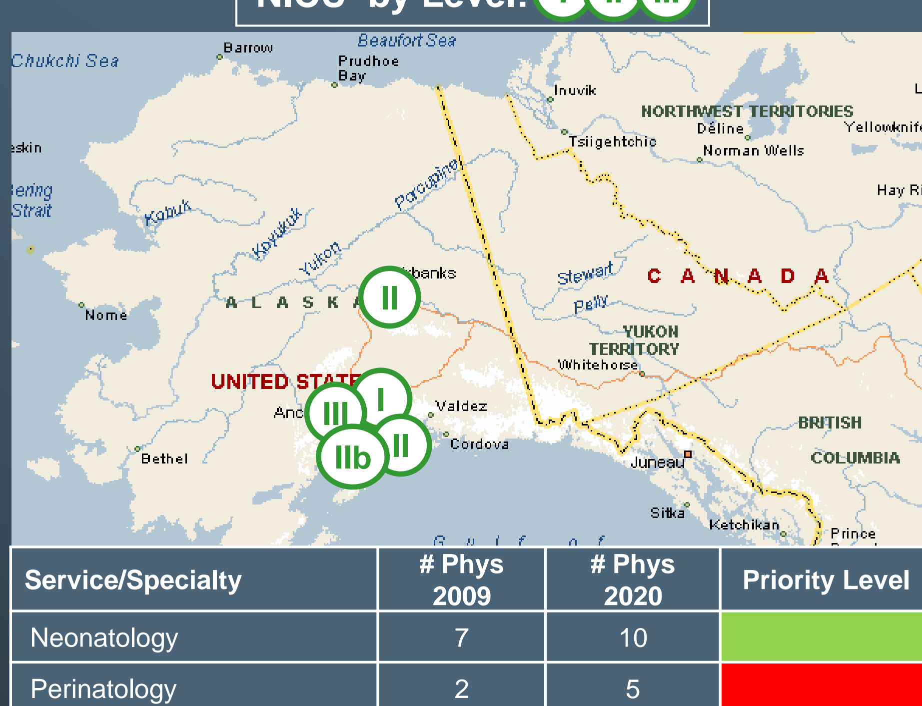
Trauma Centers	
Level II (1)	Alaska Native Medical Center
Level IV (4)	Norton Sound Regional Hosp., Yukon Kuskokwim Delta Regional Hosp., Mt. Edgecumbe Hospital, Sitka Community Hosp.
Major Emergency Departments	
Providence Alaska Medical Center	
Alaska Regional Hospital	
Fairbanks Memorial Hospital	
Bartlett Regional Hospital	

For Discussion: The Alaska Trauma Study's recommendation for a Pediatric Trauma Center
Source: Trauma System Consultation, American College of Surgeons Committee on Trauma.

Distribution Model – Details Neonatal Intensive Care Units

Current NICU's support major OB delivery programs (700+ deliveries per year)

- Volumes do not support additional NICUs in state



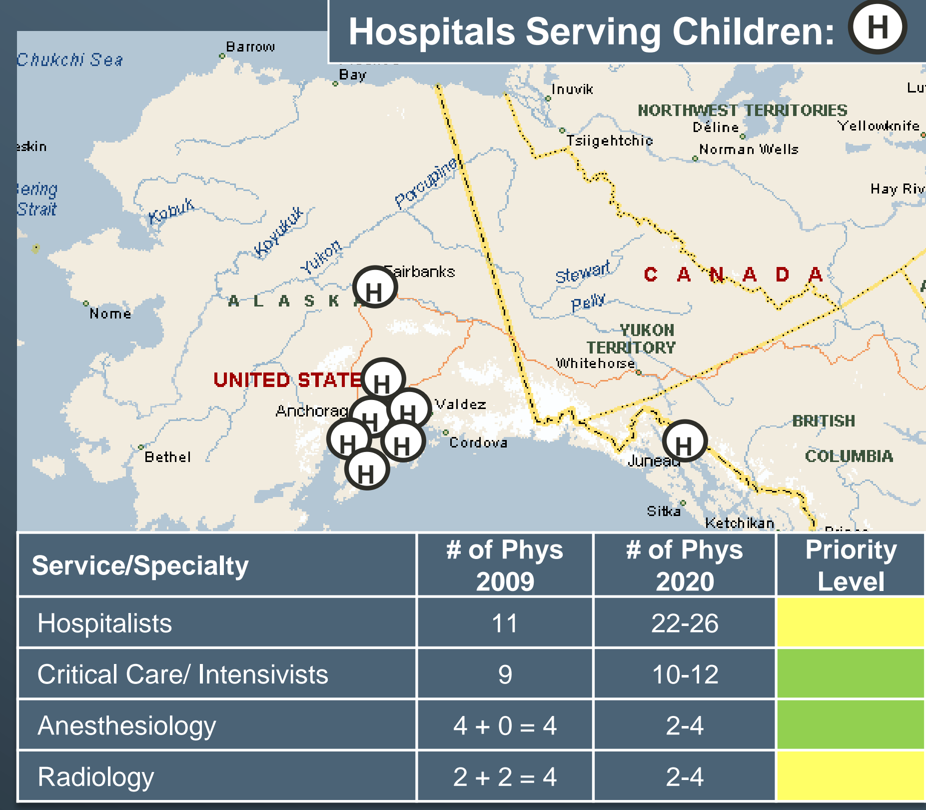
Service/Specialty	# Phys 2009	# Phys 2020	Priority Level
Neonatology	7	10	
Perinatology	2	5	

Hospital	2008 Total Births	NICU
Providence Alaska Medical Center	2,714	Level II and III
Alaska Native Medical Center	1,493	Level IIb
Fairbanks Memorial Hospital	1,168	Level II
Elmendorf AFB Hospital	808	
Alaska Regional Medical Center	807	Level II
Bassett Army Community Hospital	772	
Mat-Su Regional Hospital	712	Level I
Bartlett Regional Hospital	380	No NICU
Central Peninsula Hospital	379	No NICU

Source: Alaska Bureau of Vital Statistics

Distribution Model – Details "Provide Well" Hospital-Based Services

- 96% of pediatric census is at 8 of the 24 hospitals in AK; 90% in Anchorage
- 22-26 Hospitalists should be distributed among hospitals with regular pediatric census
- 10-12 Intensivists needed to support PICUs
- Explore development of coordinated physician group(s) providing cross-coverage at two PICU sites



Service/Specialty	# of Phys 2009	# of Phys 2020	Priority Level
Hospitalists	11	22-26	
Critical Care/ Intensivists	9	10-12	
Anesthesiology	4 + 0 = 4	2-4	
Radiology	2 + 2 = 4	2-4	

Hospitals Caring for Children (Above 3 ADC)	PICU
Alaska Native Medical Center	X
Alaska Regional Hospital, Fairbanks Memorial Hospital, Bartlett Regional Hospital, Mat-Su Regional Hospital, Elmendorf AFB Hospital, Central Peninsula Hospital	
Children's Hospital	
Providence Alaska Medical Center	X

Distribution Model – Details "Provide For" Services from Out-of-State

- For subspecialties provided out-of-state, two modes of delivery are envisioned:

Services requiring children travel out-of-state for care	Pediatric inpatient provided for out-of-state Clinics in Anchorage
Burn/Level 1 Trauma	Genetics
Behavioral Health – Secure Residential, Exceptions (Rare, low volume cases)	Rheumatology
Cardiac Surgery	
Interventional Cardiology, Electrophysiology	
Neurosurgery	
Surgical Oncology	
Rehabilitation	
Spine Surgery	
Transplant	
Vascular Surgery	

- Services delivered through structured relationships with 2-3 layers

Note: All subspecialties in this category require less than 1 full-time physician to serve the population of children; however, Neurosurgery may require 1-2 physicians.

Distribution Model – Details "Provide For" Services from Out-of-State

- Genetics and Rheumatology clinics in State
- Visiting pediatric subspecialists contracted depending on need and availability

Note: Ability and frequency of clinics is dependent on availability of visiting physicians and financial support

Appendix

Dental Health Care – Additional Information

- Existing Situation and Potential Future Opportunities (Work in Progress)
- General dentists in AK proficient in care for children, with most full-time dentists located in major cities and communities
- Access to dental services in rural locations and for Medicaid/uninsured children is severely restricted
  - Acceptance of Medicaid is lower among younger dentists; access will be challenge as older dentists retire
- Pediatric dentist supply is generally at necessary level; additional providers will be recruited through the residency program and likely yield 1-2 providers every 3 years on average. State and system will have a bias for pediatric dentists to focus on Children with Special Health Care Needs (CSHCN) but independent dentists have latitude over their practices.
- Opportunity to expand role of preventative and consultative dental hygiene in medical home concept (mostly through Native Health clinics)
  - There are 8 Dental Health Aides in AK today. Need to expand this model to more communities/villages
  - Rotation to smaller communities on a schedule (2 times per year) with a regular provider will improves continuity of care
- Orthodontists are general providers (all ages, not Peds specific) and will be accessed as needed. Orthodontic services already being advanced through State mandate.

Behavioral Health – Additional Information

- Existing Situation and Potential Future Opportunities (Work in Progress)
- Expand role of behavioral health in medical home concept (mostly through Native Health clinics). In tandem with this effort, better coordination and identification of contributing family/social factors and care plans should be developed with other community resources (DCFS, Social workers, school, etc.)
- Opportunity to shift some services to the outpatient setting through education of primary care providers and health aides
- Create a position for a State Child Psychiatrist to support medication management for children – position will provide consultations to general primary care physicians in the appropriate prescribing, dosing and adjusting psychotropic medication for children. The person will work to expand the availability and access to medications at pharmacies throughout the state; a central mail-order pharmacy with a pediatric pharmacist may be explored to improve the dosing and refill cycles.
- Policy changes needed to update payment mechanisms to reflect current best practices and ambulatory patient management – create access to preventative therapy and psychiatric consultation to avoid acute hospitalization

Mid-level Providers – Additional Information

Current Status:

- Few pediatric mid-levels today nationally
  - 12,000 certified pediatric nurse practitioners
  - 25 are in Alaska
- Sub-specialization limited to broad categories
  - Neonatal, Pediatric Oncology, Pediatric Critical Care, Pediatric Acute Care, Pediatric General Practice
  - Training programs nationally have not developed pediatric subspecialty programs

Opportunities to increase nursing capabilities through training/certification – Pediatric Nursing Certification Board

- Explore/advance nursing designations existing today – Pediatric RN, Pediatric Emergency RN, Primary Care Pediatric Nurse Practitioner, Acute Care Pediatric Nurse Practitioner
- Evaluate new Child and Adolescent Behavioral and Mental Health certification to expand mid-level capabilities in this area

Source: National Association of Pediatric Nurse Practitioners, April 2009.