

KURT SALMON ASSOCIATES

EXECUTIVE REPORT

ALASKA PEDIATRIC SUBSPECIALTY DISTRIBUTION PLAN

JULY 1, 2010

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.

To ensure a cohesive direction and harness the wealth of experience and ideology of Alaska health care providers, the process was structured to include participation from a broad group of constituents:

- Interviews: One-on-one and small group interviews were conducted with more than 75 health care providers and leaders representing more than 25 organizations across the State.
 - Clinicians included primary care, pediatricians, medical and surgical subspecialists who treat children, child psychiatrists, pediatric dentists, nurses, and other clinicians.
 - Health care leaders included, but were not limited to: hospital and health care administrators; chief nursing offices; representatives from AMHTA, ASHNHA, Alaska Department of Health and Social Services (DH&SS), Alaska State Medical Association (ASMA), and many others.
- Steering Committee: A steering committee, comprised of 20 individuals from 14 different organizations, met three times and was charged with stewarding the dialogue and anchoring the process.
- Executive Committee: Four representatives from the AAPP representing the Children's Hospital at Providence (TCHAP), the Alaska Native Medical Center (ANMC), the State of Alaska DH&SS, and community pediatricians served as the coordinating body for the project.
- Two *ad hoc* presentations – one with representatives from DH&SS including the Health Commissioner and the second with attendees at Pediatric Grand Rounds – were conducted to gain additional input on the draft distribution plan.

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The perspectives and findings from these conversations shaped the collective understanding of the current situation and informed the development of options for improving the pediatric subspecialty environment in Alaska.

This *Executive Report* summarizes the work completed through this planning process and consists of four major sections: Section I provides an overview of the pediatric subspecialty environment and implications for the future delivery of these services; Section II outlines the strategic recommendations and supporting rationale needed to advance pediatric subspecialty care in Alaska; Section III provides detail on the envisioned distribution model – including the recommended number of providers by specialty and location; and Section IV lays out the immediate next steps. Additional details around the participants and data analysis can be found in the consolidated final report on the AAPP website at (www.a2p2.com).

I. ASSESSMENT OF ALASKA’S PEDIATRIC HEALTH CARE ENVIRONMENT

Completing a thorough review of the Alaska pediatric health care environment was a necessary first step to understand the implications for the future delivery of pediatric subspecialty services. Based on primary and secondary data analyses, and qualitative insights gained through interviews, six major findings were identified and used to develop the rationale for the recommendations outlined in Section II. Details around each of these findings follows.

Finding #1: The demand for pediatric subspecialty services over the next decade will be driven by a growing and diversifying pediatric population, but the total population of children is insufficient to support all full-time pediatric subspecialty providers in the state.

In 2008, there were approximately 196,000 children in Alaska. This number is projected to increase by nearly 20,000 by 2020, making children between the ages of 0 to 17 years old the largest population base by age cohort in the state (~28% of the total population). Table 1 below summarizes the historical and projected population by age cohort.¹

Table 1. Alaska Historical and Projected Population by Age Cohort

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

Source: Alaska Department of Labor and Workforce; KSA Analysis

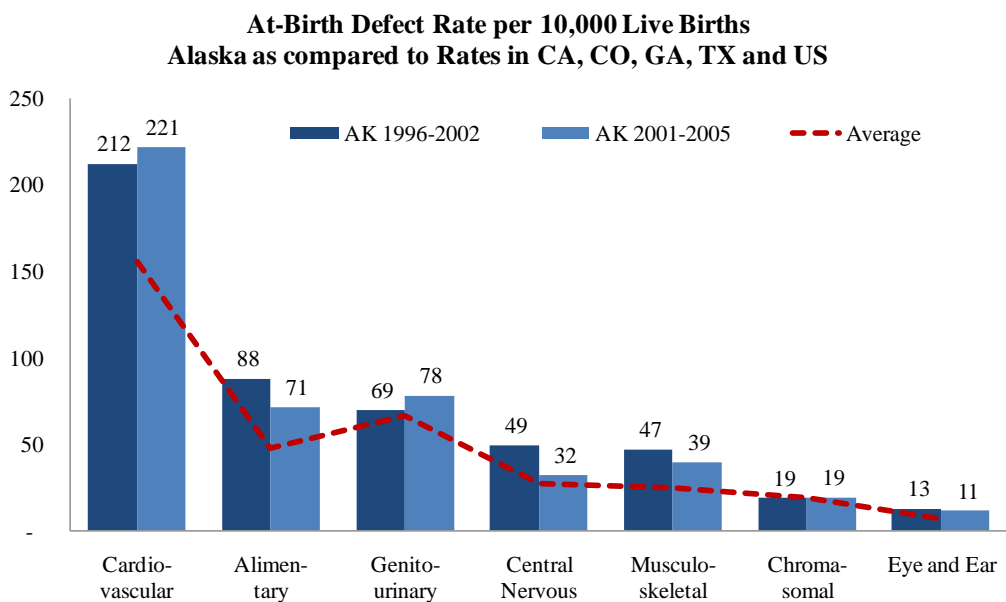
Demographics will also be a key driver of increased demand. Several studies have shown heterogeneous populations often exhibit differences in incidence and prevalence of disease suggesting a need for the full range of subspecialists. From 2006 to 2008, the percentage of white

¹ Alaska Department of Labor and Workforce; KSA Analysis

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children declined from 72% of the population in 2006 to 63% in 2008.² Also, Alaska children are born with higher rates of birth defects compared to other states. Figure 1 below shows that in five out of seven disease categories, at-birth defect rates were two times higher for Alaska Children compared to rates in California, Colorado, Georgia, and Texas.³ While infant mortality, child and teen death rates per 1,000 children are among the lowest compared to other states, health outcomes due to lifestyle choices and cultural influences (e.g., smoking, obesity, dental caries, and suicides) are increasing or remain at levels higher than U.S. averages.⁴ The latter may require subspecialty care over the long-term, but the short-term implications suggest an opportunity for increased coordination of care among community health aides, public health, primary care and subspecialty care.

Figure 1. Alaska At-Birth Defect Rates per 10,000 Births, Comparative Analysis



Source: Alaska Maternal and Child Health Data Book, 2005: Birth Defects Surveillance Edition

Despite the growing number of children, and the demographics of the pediatric population, 200,000 children is insufficient to support the full range of pediatric subspecialists. Several of these specialties, such as pediatric gastroenterology, urology, orthopedics, rheumatology, and others require a population base of 250,000 to more than 300,000 to maintain skillsets. Reliance on in-state providers that treat adults and children as well as out-of-state pediatric providers will be necessary to ensure access to the full range of subspecialty services.

Finding #2: Alaska's geography, severe weather conditions, and distribution of the population hinders the ability to provide access to routine subspecialty care and, in some cases, leads to a misuse of resources. Reliance on air transport will continue, yet there are opportunities to increase telemedicine capabilities and develop a more coordinated, cost-efficient care delivery model.

² Ibid

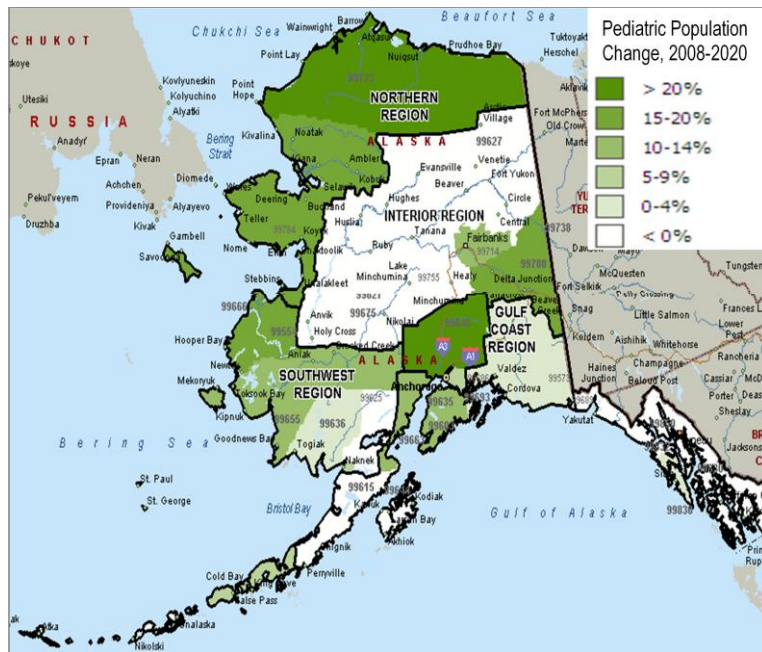
³ Alaska Maternal and Child Health Data Book, 2005: Birth Defects Surveillance Edition

⁴ Annie E. Casey Foundation, Kids Count Data Book, 2007; Alaska Maternal and Child Health Data Book, 2005: Birth Defects Surveillance Edition

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Alaska is the largest state in the nation encompassing 571,000 square miles (~20% of the land mass of the lower 48 states), but on a per population basis, is ranked 51 with 1.2 persons per square mile.⁵ While 70% of children reside in the communities of Anchorage, Mat-Su and Fairbanks, 30% reside on islands or villages that can only be reached by water or air. In the winter months, extreme weather makes it even more difficult to reach parts of the state, including the one hour drive from Anchorage to Mat-Su. Although small in numbers, the future growth in the pediatric population is projected to increase in these difficult to reach geographies making access to care an ongoing challenge in the future delivery environment. Figure 2 shows the current and future distribution of children by region.⁶

Figure 2. Pediatric Population Change by by Borough (Map) and Region (Table)



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

The majority of subspecialists reside and practice in the Anchorage and Mat-Su region; locations with the largest number of children and the resources necessary to support their practices, both inpatient and ambulatory care. Traveling to remote communities such as Bethel, Nome and

⁵ Alaska Department of Labor and Workforce; U.S.Census Bureau; KSA Analysis

⁶ Ibid

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Barrow is difficult for most subspecialists given the time to reach these locations (a full day of travel), time away from their day-to-day practice, and the high rates of no shows once they reach the location. Combined, these constraints make it difficult for providers to follow up on a routine basis. In addition, outreach for some services is often un-or-underfunded. While the native population is ultimately covered by the Indian Health Services, a large number of these children are uninsured. As a result, subspecialists providing outreach is typically on a voluntary basis, supported through the Alaska Native Tribal Consortium (ANTHC) or funded by the state. As it stands, the state currently spends \$24M for health care related travel expenses today.⁷

The restricted access to routine and outpatient subspecialty care has led to an increase, and in some cases, misuse of acute care services. Alaska's children use inpatient hospital services at a higher rate than national averages (46 admissions per 1,000 children (2007) versus national average of 38 per 1,000 children (2006)).⁸ Part of this may be a function of poor health status (higher rates of birth defects, lifestyle risk), but part may also be due to foregoing treatment (due to a lack of local outpatient subspecialty services) until an illness has advanced to a higher acuity level. Similarly, the lack of access to outpatient child psychiatrists has also led to an increase in the use of and length of stay for inpatient behavioral health services and residential treatment centers.⁹ Developing a more patient and family centered, integrated care network (i.e., through telemedicine, EHRs, care pathways) – linking subspecialists to community health aides, primary care physicians and pediatricians – could significantly improve access to care in an efficient, cost effective manner.

Finding #3: Existing health care resources are better than expected although gaps still exist. There is an opportunity to fill these gaps through a coordinated in-state and out-of-state approach.

The majority of resources needed to diagnose and treat children are provided in Alaska today.¹⁰ Starting with community health aides in local villages, to primary care providers, to pediatricians, to subspecialties (medical and surgical pediatric subspecialists, providers that see adults and children, child psychiatrists, and pediatric dentists) to post-acute providers (rehabilitative therapists), Alaska offers a majority of services along the continuum of care.¹¹ While each of these areas have their own limitations, the progress made to date and ongoing initiatives for improvements (e.g., workforce – “Grow Your Own”, increased residency slots for medical students and nurses, “Bring the Kids Home,” etc.) are noteworthy.¹² Transportation systems for emergency response and critical care needs as well as technology to support telehealth are also well developed. While the focus of this report is on pediatric subspecialists, it is important to point out that the services and positions listed above are critical to ensuring high quality care for children, with subspecialty services as only one part of the full gamut of services needed.

⁷ Stakeholder Interviews

⁸ ASHNHA data, 2005 to 2007; Solucient data for out-of-state discharges, 2005 to 2007; U.S. Census Bureau; National Hospital Discharge Survey, CDC; KSA Analysis

⁹ Stakeholder Interviews

¹⁰ Alaska Department of Labor and Workforce; Interview with Alice Rarig, Planner HCS/DH&SS; KSA Analysis

¹¹ Stakeholder Interviews

¹² “Bring and Keep our Kids Home,” PowerPoint Presentation by Kathy Craft, DHSS, The Trust and UA on June 15, 2009; “Health Workforce Issue,” Alaska Rural Health Notes, Vol. 11. No. 1, March 2009; Stakeholder Interviews

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In 2009, there were 122 physicians providing pediatric subspecialty services in Alaska (see Table 2 below).¹³ By 2020, 138 to 183 pediatric subspecialists will be needed to meet the demands of the population. Select subspecialties will continue to rely on providers that treat both adults and children (e.g., ENT, orthopedics, etc.).¹⁴

Table 2. Alaska Pediatric Providers, 2009 Estimate and 2020 Planning Target

Pediatric Subspecialty Group	2009 Physicians that treat children P + A = T	2020 Planning Target Range
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 Provider. Planning Target based on multiple methodologies – see Final Consolidated Report for details.

Source: Alaska State Medical Association, 2009; Hospital websites; Provider e-mails; KSA Analysis

From 2005 to 2007, approximately 95% of inpatient pediatric patients were treated in state with 5% traveling to the Lower 48. Reliance on out-of-state providers was predominantly for complex, high acuity care in pediatric subspecialties such as oncology, cardiac surgery, orthopedic surgery, and advanced NICU care – services that should continue to be provided out-of-state given the low volumes and high resource requirements.¹⁵ Similarly, capacity for inpatient behavioral health services is sufficient, however, very subspecialized services such as rehabilitation for neurology patients and treatment of eating disorders also continue to receive care out-of-state.¹⁶

The largest gaps, although few in number, are for outpatient services. As mentioned, routine and immediate access to most medical and surgical pediatric services is confined to the Anchorage and Mat-Su region. For services where there is no provider in Alaska, the State funds routine outpatient clinics (e.g., genetics and rheumatology) or contracts with out-of-state institutions for subspecialty care.¹⁷ The result is a high-cost delivery model, with inconsistent care coordination and follow-up between out-of-state specialists and local providers.

Gaps in outpatient care for behavior health and dental services also exist, although the basis for these gaps is primarily due to economic and legal factors. Access to outpatient child psychiatry and pediatric dentistry is highly variable based on insurance coverage. Access for Medicaid, Denali KidCare, and uninsured children is severely restricted given the lower reimbursement rates. For behavioral health services, the lack of reimbursement for day treatment also prevents

¹³ Alaska State Medical Association, 2009; Hospital websites; Provider e-mails; KSA Analysis

¹⁴ Ibid

¹⁵ ASHNHA data, 2005 to 2007; Solucient data for out-of-state discharges, 2005 to 2007

¹⁶ Stakeholder Interviews

¹⁷ Ibid.

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access to these services or requires an inpatient stay for payment – a costly misuse of resources. In addition, medical management continues to be problematic. For liability reasons, child psychiatrists must see the patient prior to refilling prescriptions, often requiring travel for care.¹⁸ Increasing the use of telehealth services could not only minimize the gaps, but also advance a stronger connection between primary care and behavioral health providers, decrease costs due to transportation and potential readmissions, and continue to align with the “Bring the Kids” home initiative.

While opportunities for improved coordination of care exists, both within the state and out-of-state, a reassessment of the current reimbursement environment could help improve access to care and reduce the disparity of care provided today.

Finding #4: The current delivery system is fragmented; no one system can support the full range of subspecialists. Collaboration among providers is necessary to improve quality and continuity of care.

Within Alaska, there are four different systems of care providing for Alaska’s children:¹⁹

1. The Private System – comprised largely of TCHAP, Alaska Regional Hospital (ARH), NorthStar, Fairbanks Memorial Hospital, Mat-Su Regional Hospital (MSRH) and Bartlett Regional Hospital is the primary care provider for non-native children and sees children from the Native System and Department of Defense Systems as directed. The large bolus of pediatric subspecialists within the state today are affiliated with these institutions.
2. The Native Health System – comprised of the extensive network of tribal associations, hospitals, foundations and clinics system – cares for the Alaskan Native community, with Level II Trauma care being a notable exception. This system is developing a robust, family-centered model of care with medical homes for children. This system includes the Alaska Native Medical Center and only engages pediatric subspecialty physicians at other institutions for specific cases. To refer children outside of the system to the Private System generally requires pre-authorization if the child has Indian Health Service (IHS) coverage.
3. The Department of Defense System (DoD) – comprised of the military bases in Alaska – providing the vast majority of health care for military dependent children on-base. Similar to the Native Health system, the Alaska DoD has close ties to DoD providers in other states, such as Madigan Air Force Base in Washington state, and generally requires pre-authorization for dependent children to be treated by a Private System provider.
4. The State System – in the context of shortages of providers and mandates to ensure access, the State of Alaska contracts with out-of-state providers to offer clinics in-state. These clinics are focused narrowly on specific specialties (e.g., genetics) or disease/disorders (e.g., autism). The state provides funding support for these clinics until other providers develop the capabilities and resources to manage the care of these children.

Among these four systems of care, no one provider has sufficient volume and financial support to provide and maintain a full complement of pediatric subspecialty services. Based on scale, some services are available within multiple systems (e.g., NICU) while a large majority are

¹⁸ Stakeholder Interviews

¹⁹ Stakeholder Interviews from various systems and tours

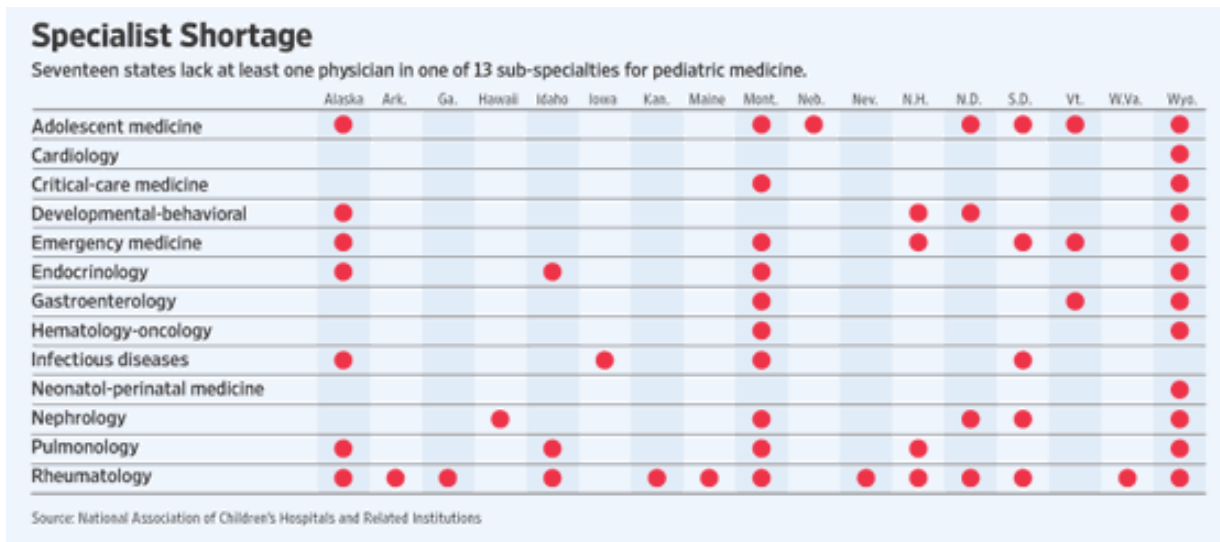
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centered at TCHAP and ANMC. Even among the two major providers of pediatric acute care services, opportunities exist to explore cross coverage models for hospital-based services.

Finding #5: Physician sustainability remains a challenge due to both external and internal factors such as national provider shortages, scale of programs and lifestyle. Developing a care network with academic elements will create scale and be more attractive to physicians.

A recent study by the National Association of Children’s Hospitals and Related Institutions (NACHRI) concluded that there is a growing number of shortages in pediatric subspecialists such as gastroenterology, neurology and rheumatology. The primary driver for these shortages is due to low salaries and poor reimbursement rates. Alaska was identified as one of the states with the most provider shortages.²⁰

Figure 3. Pediatric Specialist Shortage by Specialty and by State



Source: “For Severely Ill Children, a Dearth of Doctors,” *The Wall Street Journal*, January 12, 2010

Through interview discussions, the plight of Alaska’s subspecialty physicians is clear: limited scale of programs puts unbearable strain on the physician lifestyle. While the reimbursement rates are generally sufficient to maintain a practice, the small size of the demand translates to the need for one or two physicians. The small number of pediatric subspecialists subsequently results in three main detractors from Alaskan practice: 1) excessive call coverage requirements, 2) overextension of capabilities and 3) limited professional interactions with peers. Several providers specified the need for additional education to maintain skills and the desire to conduct research, both clinical and basic sciences.

Finding #6: Perception of high-quality, safe pediatric subspecialty care varies by subspecialty. Demonstrable outcomes will be necessary to secure referrals and support in-state care.

The provider community today is loyal to Alaska and understands the health needs of the diverse population. Despite competing staff models, the current relationship between physicians and hospitals/systems is collegial with all working towards the advancement of care for Alaska

²⁰ “For Severely Ill Children, a Dearth of Doctors,” *The Wall Street Journal*, January 12, 2010

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children. Throughout the interviews, there was general consensus among the pediatric community that a centralized distribution model would be needed given the challenges unique to the state (e.g., small population base spread across a large, difficult to traverse geography). However, the lack of communication and transparency around quality and outcomes has led to referral patterns driven by perception as well as patient and provider experience. In fact, some providers choose to refer children out-of-state for a specialty that is offered in-state given this perception.

Continued reliance on out-of-state providers was also recognized as a critical element that needed to remain part of any distribution model. Similar to the perception of in-state providers, there was disagreement around the quality of the out-of-state provider and which provider to work with. Table 3 below summarizes the benefits and challenges of the major out-of-state providers today.²¹

Table 3. Overview of Benefits and Challenges of Major Pediatric Out-of-State Providers

Out-of State Providers	Benefits	Challenges
Seattle Children's	<ul style="list-style-type: none"> • 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) 	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • Alternative to Seattle • Provides access to subspecialty care – quality programs, bridges the gaps in state today • Based on good relationships / sense of loyalty 	<ul style="list-style-type: none"> • Programmatic focus (endocrine / metabolic disorders, scoliosis, etc.) • Unstable given reliance on MD-MD relationships • Lacks processes for consistent / coordinated care

Source: Stakeholder Interviews; KSA Expertise

Ensuring referrals remain in-state (where appropriate) will require a new culture around collaboration, accountability, and transparency. Working together can also create an opportunity to leverage contracts and care coordination with out-of-state providers.

²¹ Stakeholder Interviews

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II. STRATEGIC RECOMMENDATIONS

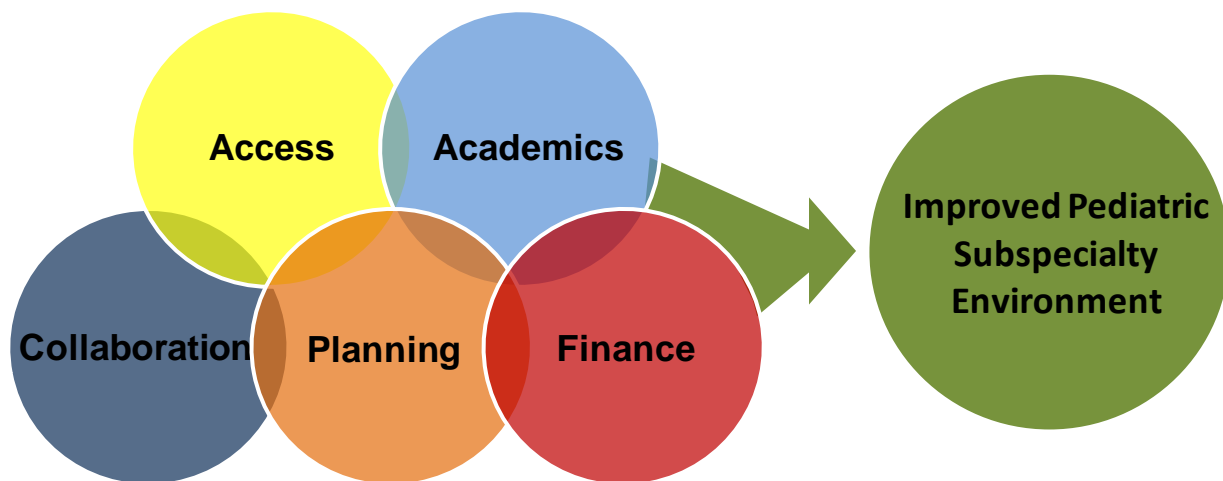
A strategic vision and supporting goals for the advancement of pediatric subspecialty care in Alaska were developed during this process and will continue to inform the decisions and priorities of the pediatric community.

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 that is financially viable and sustainable over the long-term

Five strategic themes were advanced to achieve the vision and create a more comprehensive and cohesive pediatric subspecialty provider community:

Figure 4. Strategic Themes to Advance the Vision



Within the strategic themes, three surfaced as the most critical, driving the top five strategic recommendations:

1. **Access:** The pediatric community must develop and adopt a distribution plan that improves access to pediatric subspecialists
2. **Collaboration:** The new plan must increase coordination and collaboration among providers and systems
3. **Finance:** Improvements to the current financial environment will be necessary to ensure future success

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Twelve recommendations were developed with the first five focused on strategic advancements and the remaining seven as enablers of the strategies.

Recommendation 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
 - › In-State – fundamental specialties – “provide well”
 - › Out-of-State – comprehensive specialties – “provide for”
- Collaborate on provider recruitment initiatives
 - › Evaluate and distribute costs of recruitment across institutions – need to ensure balance between initial costs and potential revenue-generating opportunities
 - › Share recruitment tactics, retention responsibilities and outcomes
- Build capabilities to complement primary care/medical home with care/case management for children

Details on the distribution model are included in Section III of this report

Recommendation 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 (i.e., CME) for pediatricians on topics of interest
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Recommendation 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

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- Seek and support learning opportunities for NP/PAs – specialty conferences, interaction with other specialty resources
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Recommendation 4: Define a stronger culture of shared accountability and action

Rationale: Need to create a more collaborative environment to implement pediatric subspecialty initiatives across the state, 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
 - › Disclose progress and lack thereof, good and bad
 - › Promote open town hall sessions to vet status of progress
 - Formalize participation between ANMC, TCHAP and broader constituencies
 - › Credentialing at multiple hospitals
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Recommendation 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 versus out-of-state
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Recommendation 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
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Recommendation 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)

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- Comprehensive tracking of patients (inpatient/outpatient, location, air/ground transport)
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Recommendation 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, case management and follow-up
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Recommendation 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 or reorganize existing foundations
 - Sponsor the development of the Access Center
 - Provide support for research initiatives
 - Provide grants, gifts to provider community
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Recommendation 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, research study coordinator, facilities)
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Recommendation 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
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Recommendation 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

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- 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).
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III. DISTRIBUTION MODEL FOR PEDIATRIC SUBSPECIALTY PHYSICIANS

Recommendation 1 is to increase the number of providers and distribution of subspecialty care in Alaska. The development of a preferred distribution model was based on the following methodology:

1. Identify the existing supply of pediatric subspecialists today and articulate a range of future subspecialists needed by 2020;
2. Prioritize investment and recruitment initiatives based on quantitative analysis and findings from the external market and interviews;
3. Identify the deployment of services (out-of-state, centralized, centralized with outreach and potential for decentralization); and
4. For each specialty and distribution category, identify the hubs and satellite locations as well as the frequency for which providers will travel to those sites.

The information below summarizes the key components of the distribution model. Additional details can be found in the consolidated final report on the AAPP website.

Table 4. Pediatric Subspecialists, 2009 and 2020 Targets

Service/Specialty	2009 Physicians P + A = T	2020 Planning Target Range
Adolescent Medicine	1 + 0 = 1	2
Allergy/Immunology	0 + 4 = 4	4-6
Anesthesiology	4 + 0 = 4	2-4
Behavioral Health/Psychiatry	13 + 7 = 20	22 – 33
Cardiology	4 + 0 = 4	4
Critical Care/ Intensivists	9	10-12
Dermatology	0 + 1 = 1	2-4
Endocrinology	1 + 0 = 1	2-3
ENT	1 + 3 = 4	4-6
Hospitalists	11	22-26
Neonatology	7	10
Neurodevelopmental	1 + 0 = 1	2-4
Ophthalmology	0 + 3 = 3	2-3
Orthopedics/Sports Medicine	1 + 3 = 4 / 1 + 0 = 1	3-5
Pediatric Dental	21 + 0 = 21	21 – 23
Pediatric Gastroenterology	-	2
Pediatric General Surgery	2 + 2 = 4	3-4
Pediatric Hematology/Oncology	2 + 0 = 2	2
Pediatric Nephrology	0 + 1 = 1	1-2

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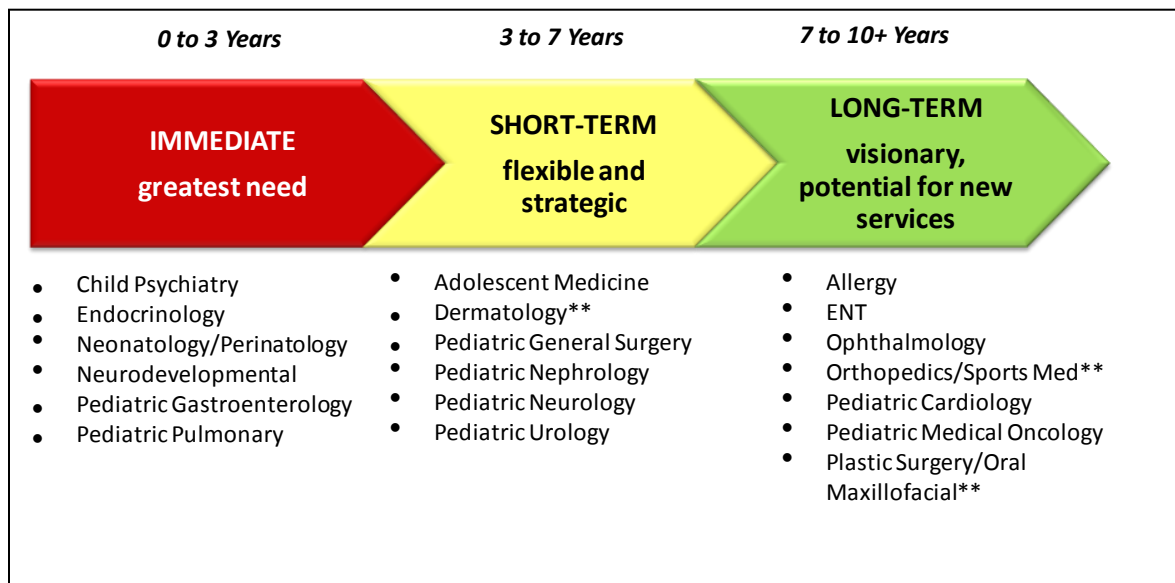
Service/Specialty	2009 Physicians P + A = T	2020 Planning Target Range
Pediatric Neurology	1 + 0 = 1	2-3
Pediatric Pulmonology	1 + 0 = 1	2-3
Pediatric Urology	1 + 3 = 4	2-4
Perinatology	2	5
Plastic Surgery/Oral Maxillofacial	0 + 4 = 4	4
Radiology	2 + 2 = 4	2-4
Total	84 + 38 = 122	138-183

P = Providers that provide care to children, A = Providers that provide care to adults and children, T = total number of Provider. Planning Target based on multiple methodologies – see Final Consolidated Report for details.

Source: Alaska State Medical Association, 2009; Hospital websites; Provider e-mails; KSA Analysis

Figure 5 below summarizes the proposed recruitment initiatives by time and subspecialty. There is a need for all subspecialty services; however, future investments will need to be spread across the strategic recommendations to ensure an overall improved pediatric environment. The prioritization timeline was based on qualitative analysis, historical difficulty with recruitment, and most immediate needs to day based on stakeholder interviews.

Figure 5. Pediatric Subspecialty Recruitment Priorities by Time and Specialty



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

Deployment of Services

Among subspecialists in-state and out-of-state, the envisioned distribution model is summarized in Table 5 below. Categorization of centralized vs. decentralized distribution was based on four criteria:

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1. Minimum number of physicians needed to support the specialty
2. Degree of dedicated, capital intensive resources need to support the subspecialty
3. Level of multidisciplinary care available onsite
4. Degree of recruitment difficulty

Table 5. Summary of Pediatric Subspecialty Services by Distribution Model

“PROVIDE FOR” OUT-OF-STATE PHYSICIANS, SOME OUTREACH CLINICS IN ALASKA	“PROVIDE WELL” IN-STATE PHYSICIANS		
	Centralized	Centralized with Outreach	Potential Decentralization
<ul style="list-style-type: none"> ■ Behavioral health – very specialized care ■ Cardiac surgery** ■ Interventional cardiology and electrophysiology ■ Genetics* ■ Neurosurgery** ■ Surgical oncology ■ Inpatient rehabilitation ■ Rheumatology* ■ Spine surgery ■ Transplant** ■ Vascular surgery** 	<ul style="list-style-type: none"> ■ Pediatric hospitalists, intensivists, radiologists, anesthesiologists ■ Adolescent medicine ■ Dermatology** ■ Pediatric gastro-enterology ■ Pediatric general surgery ■ Neonatology/perinatology ■ Pediatric nephrology ■ Neurodevelopmental ■ Pediatric neurology ■ Pediatric medical oncology ■ Plastic surgery/oral maxillofacial** ■ Pediatric pulmonary ■ Orthopedics/sports medicine** ■ Pediatric urology 	<ul style="list-style-type: none"> ■ Allergy/immunology** ■ Pediatric cardiology ■ Endocrinology** ■ ENT** ■ Ophthalmology** 	<ul style="list-style-type: none"> ■ Child psychiatry ■ Pediatric dentistry

* Out-of-state care with outreach clinics in Alaska

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

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.

Note: Individual cases and emergencies will be handled as required.

There are 12 sites of care envisioned for the major outpatient pediatric subspecialty clinics distributed across the State. These sites will be structured to ensure regular schedules of outreach clinics, necessary resources and consistent communication with local primary care providers; independent physicians will maintain outreach sites as desired. As the model is successful and sufficient number of physicians are recruited, additional sites may be considered.

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Figure 6. Mapping of 12 Major Sites included in the Distribution Model

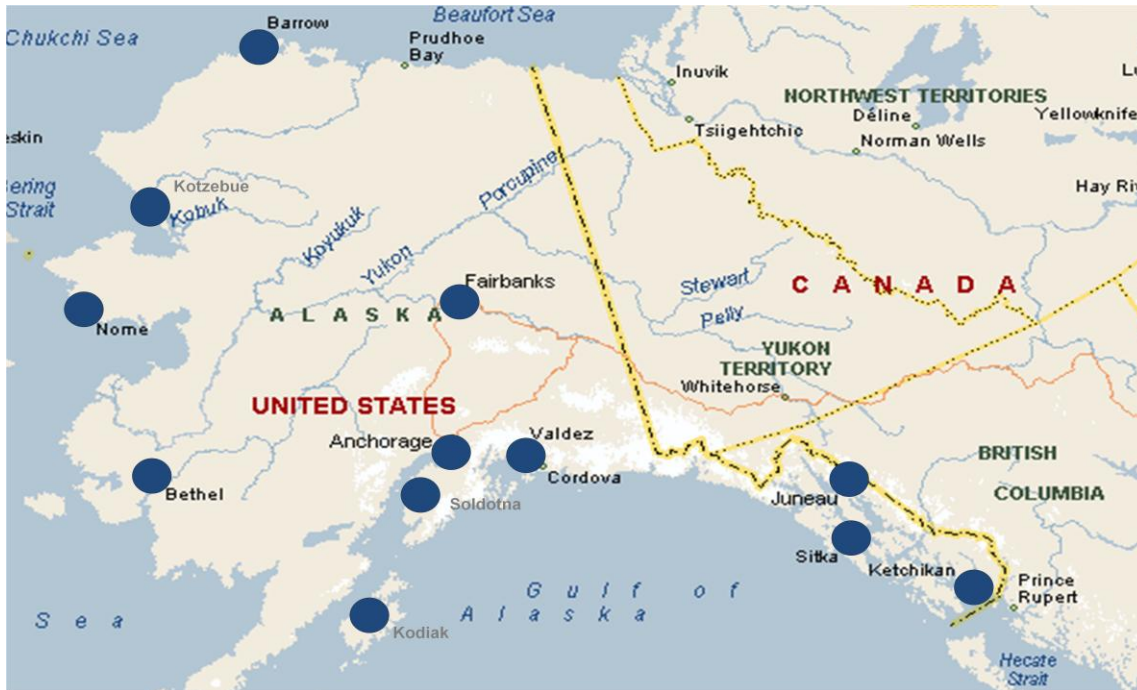
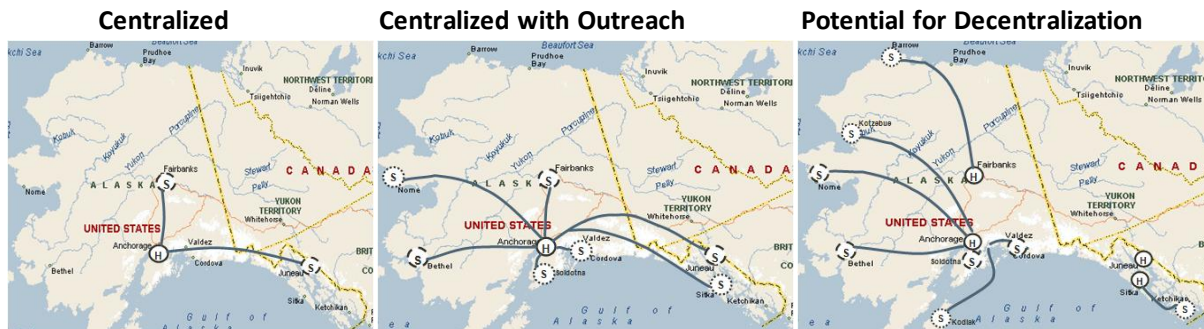


Figure 7. Distribution Locations by Model, Specialty and Hub/Satellite Locations



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

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

- Child Psychiatry
- Pediatric Dentistry

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

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IV. IMPLEMENTATION AND NEXT STEPS

The recommendations included in this Plan have now been vetted and approved by the Steering Committee and shared with the DHSS and the pediatric community. Over the coming months, the leaders of the AAPP will need to identify the best forum for advancing the plan from development to implementation – define accountabilities (role of major hospitals, AAPP, the State), develop an implementation timeline and prioritize action items, and identify the work groups required to help support the advancement of the recommendations.