Optimal Kidney Health for All Albertans
Transformational Roadmap 2019-2023
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A Word from our Leadership Team

We have an extraordinary kidney community in Alberta. The passion and expertise among healthcare providers, researchers, community organizations and the people impacted by kidney disease provide a fertile ground for improvement and results. The refresh of the Kidney Health Strategic Clinical Network’s Transformational Roadmap has been an opportunity to reflect on our successes and to look to the future on how we work with the Alberta kidney community to optimize the care and outcomes for people impacted by kidney disease.

Through the priorities outlined here, the Kidney Health Strategic Clinical Network, together with Alberta Kidney Care (AKC) and our partners in the Alberta kidney community, will continue on the path of transformation. Our vision remains to achieve the best kidney health possible for all Albertans. We will focus on three strategic directions over the next four years. These span the stages of kidney disease and include better prevention and early identification of kidney disease; better disease management and outcomes for patients; and better care and outcomes for those with end-stage kidney disease.

Our Transformational Roadmap was informed by extensive feedback from the kidney community, through consultations, presentations and surveys. We are confident through our shared understanding of where change and improvement are needed, that it will meet the needs of patients, caregivers and the health system.

Thank you for being a part of this refresh process. We look forward to working with each of you as we bring this transformational roadmap to life.

Sincerely,

Dr. Nairne Scott-Douglas
Senior Medical Director
Kidney Health Strategic Clinical Network
Alberta Health Services

Louise Morrin
Senior Provincial Director
Kidney Health Strategic Clinical Network
Alberta Health Services
An Advisor’s Perspective

I have had kidney disease for 20 years and throughout this time have seen where there could be improvements in our health system and how to improve patient care. I was surprised to discover last year that a group has been organized dedicated to improving the kidney health of all Albertans, the Kidney Health Strategic Network. I am proud to be part of this collaborative group, where patients have a voice to help make improvements.

Over the last year, I have participated in sessions where healthcare providers, patients and care-givers are free to discuss openly about the gaps and plans to make improvements without judgement. I have learned more in these sessions than I have in the last 20 years of living with kidney disease. I am confident throughout the next few years, there will be improvements in kidney health in Alberta.

"Coming together is a beginning, staying together is progress, and working together is success." - Henry Ford

- Taryn Gantar,
  KH SCN Patient Advisor
Kidney Health SCN
Transformational Roadmap 2019-2023

The Kidney Health Strategic Clinical Network™ TRM At A Glance

**Vision:** Optimal kidney health for all Albertans

**Mission:** Through innovation, partnership, and use of best evidence, we will optimize prevention, early identification and management of kidney health across all ages and stages of kidney disease.

**Strategic Directions:**

**1.** Reduce risk of acute kidney injury and chronic kidney disease through prevention, early identification, and appropriate management.

   - **1a.** Increase early identification of kidney disease and its risk factors in high risk populations.
   - **1b.** Identify those at high risk of acute kidney injury and develop strategies to reduce the risk.
   - **1c.** Prevent kidney disease and address underlying common modifiable chronic disease risk factors.

**2.** Improve management, coordination of care and outcomes of patients with kidney disease.

   - **2a.** Increase use of evidence-informed therapies that delay progression of kidney disease.
   - **2b.** Reduce variation in identification and management of glomerulonephritis.
   - **2c.** Improve appropriate utilization and integration of health care services.

**3.** Optimize informed choice and outcomes for those living with end stage kidney disease.

   - **3a.** Increase access to and improve patients' experiences with kidney transplantation.
   - **3b.** Increase uptake of home dialysis.
   - **3c.** Improve the lives and well-being of patients living with End-Stage Kidney Disease.
   - **3d.** Improve transitions in care from one treatment approach to another.

**Principles:**

- Patient & Family Centred Care
- Engagement
- Culture of Quality
- Evidence-Informed Approaches
- Sustainability
- Research, Innovation & Evaluation
- Pediatric Perspectives

**Enablers:**

- Performance Measurement
- Patient Reported Outcomes & Experience Measures
- Patient & Provider Education
- Partnerships
- Communication
- Clinical Pathways
- Technology
Celebrating our Successes

Since the launch of the Kidney Health Strategic Clinical Network (KHSCN) in January 2016, the kidney community within the province has rallied to the cause. Showing flexibility and resilience, the members of the Core Committee, in partnership with Alberta Kidney Care’s Leadership Committee (AKC) and our broader kidney health community, have defined priority areas of work and responded to the needs of the patients we serve. Over the past three years, together the KHSCN, AKC and its partners have achieved a number of successes in realizing our initial three strategic goals.

Reducing the risk of acute kidney injury and chronic kidney disease through early identification and appropriate management.

- Launched a pilot program for diabetes, blood pressure, kidney health checks and care for adults and children in Indigenous communities in Alberta.
- Supported the development and implementation of an acute kidney injury pathway and clinical decision support tools for the prevention of contrast-induced acute kidney injury (CI-AKI) in cardiac catheterization labs throughout Alberta. As a result, 89% of patients at increased risk of CI-AKI are receiving proper follow-up and lab tests.
- Supported the recognition and early management of acute kidney injury in hospitalized patients through decision support tools, care pathway and order sets.

Integrating care and improving the management and outcomes of patients with kidney disease.

- Facilitated provincial learning workshops for primary care staff on improving chronic kidney disease care based on the Chronic Kidney Disease Pathway, Nephrology eAdvice Request, and enhanced electronic Comprehensive Annual Care Plan.
- Launched a provincial Glomerulonephritis (GN) working group through which an evidence based care pathway has been developed.

Optimizing the use of home dialytic therapies, transplantation and conservative kidney management in appropriate patients of all ages and stages with kidney failure.

- Starting Dialysis on Time At Home on the Right Therapy Initiative (START) was associated with a provincial increase in incident peritoneal dialysis use (from 25% to 32%), and a decrease in the proportion of outpatients who initiated dialysis earlier than guidelines recommend (from 16% to 13%).
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- Completed an in-depth health evidence review to evaluate implementation issues associated with assisted peritoneal dialysis.
- Developed provincial patient education and resources for potential living donors, including a provincial website.
- Developed and implemented a Living Organ Donor Wage Replacement policy for Alberta Health Services (AHS) employees.
- Supported the development and implementation of the Conservative Kidney Management (CKM) Clinical Pathway leading to an increase in the percentage of patients who stay on CKM (from 60% to 87%) and an increase in the percentage of patients with signed goals of care designation orders (from 14% to 57%).

Other Highlights:

- Supported Patient and Community Engagement Research training to build capacity for patient engagement nephrology-related research in Alberta.
- Developed provincial kidney health quality metrics.
- Developed and planned implementation of provincial indicators for high value nephrology care in Alberta.
- Created the Alberta 2019 report *Prevalence and Quality of Care in Chronic Kidney Disease* - To read the report please visit: albertahealthservices.ca/assets/about/scn/ahs-scn-kh-ckd-report-2019.pdf
- Hosted three sold-out annual provincial Alberta Kidney Days conferences for front line healthcare providers. An average of 370 participants attended each year with over 86% of participants indicating that the event met and even exceeded their learning needs.
- Planned and hosted provincial renal research retreats in collaboration with the Alberta Kidney Disease Network research group.
- Implemented evidence-based provincially consistent patient education, knowledge translation and multi-disciplinary provider education strategies through all our initiatives.
- Developed a communications and engagement plan outlining how the KHSCN communicates and engages with key stakeholders.
Introduction

This Transformational Roadmap (TRM) serves as the strategic plan for the KHSCN and will guide our work for the next four years. The plan builds on the accomplishments of the KHSCN since its launch on January 8, 2016, and represents continuing work that will carryover from the previous transformational roadmap plus new priorities to address the ongoing gaps and variations in care and outcomes for people with or at risk for kidney disease in Alberta. It is aligned with the SCN Roadmap 2019 - 2024 and the Alberta Health Services Health and Business Plan.

The delivery of kidney care in Alberta is coordinated through a unified body, Alberta Kidney Care (AKC). AKC is comprised of the two operational renal programs in the Northern and Southern part of the province. AKC is involved in setting the priorities of the KHSCN through their representation on the KHSCN Core Committee; in the co-design, implementation and evaluation of initiatives through participation on working groups and project steering committees; and integrating operational practice changes. The success of the KHSCN requires continued collaboration and alignment with AKC, and as such, the two groups work closely together to achieve goals and priorities for the benefit of Albertans with kidney disease. This Transformational Roadmap is aligned with the AKC’s Strategic Plan.

The KHSCN and AKC, together with many partners and stakeholders, comprise the collective kidney community (Figure 1). Over the next four years the KHSCN is committed to continuing to work with the kidney community to improve the quality of care and outcomes for patients and their families.

Figure 1. Alberta’s Kidney Health Community
Development of the 2019-2023 Transformational Roadmap

The process to refresh the KHSCN Transformational Roadmap is depicted below.

- **Sept - Nov 2018**: Input from Stakeholders. Patient input from advisors and national process to identify patient priorities. Evidence and feedback presented to KHSCN Core Committee. Potential priority areas identified by KHSCN Core Committee.
- **Nov 2018 - May 2019**: Validated Proposed Priorities. Two surveys to kidney community requesting input on proposed priorities. Over 200 stakeholders consulted throughout this process.
- **June 2019**: KHSCN Core Committee finalized and approved TRM.
Setting the Stage: The Burden of Kidney Disease

Who is impacted?

- Chronic Kidney Disease (CKD) is a common and significant public health burden across the province, affecting approximately 12.5% of adult Albertans\(^3\).
- Approximately 450,000 people in Alberta currently have CKD and this number continues to grow\(^3\).
- Kidney disease usually starts slowly and develops without symptoms over a number of years, so CKD may not be detected until kidney function is quite low.
- About 4,500 Albertans have end-stage kidney failure, requiring renal replacement therapy (dialysis or kidney transplantation)\(^5\).
- Approximately 55% of patients living with end-stage kidney disease receive dialysis, and 45% have a kidney transplant.
- The prevalence of end-stage kidney disease (stage 3 and 4) has increased by 7.1% over two years (2015-2017)\(^1\).
- Acute kidney disease and disorders (AKD) and acute kidney injury (AKI) are common in the Alberta population and associated with an increased risk of death and development or progression of CKD. In one year, laboratory confirmed AKD was found in 48,794 individuals and AKI in 20,792 individuals in Alberta\(^4\).
What is the economic burden?

- High-income countries typically spend more than 2–3% of their annual healthcare budget on the treatment of end-stage kidney disease, even though those receiving such treatment represent under 0.03% of the total population\(^6\).

- The annual cost of care for people with CKD ranges from $14,643 per patient\(^7\), for those not on dialysis or transplant, to nearly $100,000 per patient for those on dialysis\(^7,8,9,10\).

- The growing prevalence of kidney disease is placing significant capacity and financial pressures on AKC.

- Canadians living with end stage kidney disease face significant financial challenges as a result of dialysis treatment. Starting dialysis often results in a decrease of income while out-of-pocket costs increase, ranging from $1,400-$2,500 per year for treatment, transportation and medication expenses\(^11\).

- The proportion of patients on dialysis who are below Canada’s low income cut-off is much higher than the general population (41% vs 8-14%)\(^11\).
Our Strategic Directions

Strategic Direction #1
Reduce the risk of acute kidney injury and chronic kidney disease through prevention, early identification, and management.

Strategic Direction #2
Improve management, coordination of care and outcomes for patients with kidney disease.

Strategic Direction #3
Optimize informed choice, and outcomes for those living with End-Stage Kidney Disease

Continuum of Kidney Disease
**Strategic Direction 1:**

**Reduce the risk of acute kidney injury and CKD through prevention, early identification, and management**

**Our Priorities:**

Under the first Strategic Direction, the Kidney Health SCN has identified three key priorities that will enable us to successfully achieve this strategic direction. These priorities are:

a. Increase early identification of kidney disease and its risk factors in high risk populations (e.g., Indigenous peoples and those with diabetes), including risk stratification, and timely referral to appropriate service(s).

b. Identify those at high risk of acute kidney injury and develop strategies to reduce the risk.

c. Collaborate with other SCNs and key stakeholders on strategies to prevent kidney disease and address underlying common modifiable chronic disease risk factors.

**Did you know?**

Guidelines recommend screening for kidney disease by measuring albumin to creatinine ratio annually in people with diabetes, but only 43% of Albertans with diabetes currently receive such testing.¹
**Why is this important?**

**Early identification of kidney disease in high risk populations:**

- With earlier detection of CKD, and appropriate risk stratification, patients at high risk are able to initiate effective therapy sooner to improve outcomes and slow the progression of disease\(^\text{12}\).

- Health outcomes in patients with diabetes who are at high risk of CKD are improved by screening for kidney disease, including testing urine albumin-to-creatinine ratio. Albuminuria measurement in people with diabetes ranged from 32.1 – 47.9% across Alberta’s former health regions\(^\text{1}\).

- Rates of CKD and diabetes are high in Indigenous populations\(^\text{13}\) yet screening for CKD and diabetes is not routinely done in Indigenous communities in Alberta.

- Less than 50% of people with diabetes are appropriately screened for kidney disease even though they are at higher risk of developing kidney disease related to their diabetes. \(^\text{14, 15}\).

- Validated risk prediction tools using routine laboratory data could also provide additional predictive information for patients with multiple chronic diseases\(^\text{15}\).

**Risk of acute kidney injury:**

- Acute kidney injury affects 7-18% of hospitalized patients, is associated with prolonged admissions, poor outcomes, high costs\(^\text{16,17,18}\) and with an increased mortality that averages 30% during initial hospitalization\(^\text{19}\).

- One in twelve survivors of acute kidney injury require the initiation of chronic dialysis after hospital discharge, a rate that is 200% higher than the risk observed in the general population\(^\text{20}\). While identifying individuals at risk of acute kidney injury has the potential for care improvements that would reduce length of hospital stay and improve long-term health outcomes for these patients\(^\text{21}\); the translation of this knowledge into action has been limited\(^\text{22}\).

- Children who develop AKI are associated with longer in-patient stays, higher rates of mortality and are at higher risk for developing chronic renal problems. The incidence of AKI in pediatric intensive care unit patients is 27% \(^\text{23}\).

- There is no systematic process in the pediatric population to identify those at risk for acute kidney injury and to manage them accordingly in order to prevent the development of chronic kidney disease.
Common modifiable chronic disease risk factors:

- Chronic diseases, such as CKD, share common modifiable risk factors including unhealthy diet, physical inactivity and tobacco use.
- Intermediate risk factors, such as high blood pressure, diabetes and obesity, are shared across many chronic diseases.
- By working together with partner SCNs and other key stakeholders, we can develop strategies to address not only the risk of CKD but also other chronic diseases.

Our Plans

- Target high risk populations such as Indigenous Peoples and those with diabetes to identify those who are at risk of developing kidney disease early on, appropriately manage this risk, and ideally prevent them from developing kidney disease in the first place.
- Explore opportunities to develop new and scale and spread existing evidence-based initiatives to the pediatric population.
- Support development and implementation of pathways and decision support tools for the early recognition and management of acute kidney injury, including the pediatric population.
- Partner with other SCNs and key stakeholders to address common chronic disease risk factors, leveraging the expertise of a variety of stakeholders to address risk factors such as diabetes, obesity, cardiovascular disease, hypertension, smoking, unhealthy eating, and sedentary behavior.
- Explore opportunities to evaluate and/or implement new therapies to prevent and slow the progression of disease.

How will we know we are successful?

- Increased measurement of albuminuria in those at high risk of CKD.
- Better identification and management of acute kidney injury.
- Decreased proportion of people progressing to end-stage kidney disease.
Strategic Direction 2:

Improve management, coordination of care and outcomes for patients with kidney disease.

Our Priorities:

Under the second Strategic Direction, the Kidney Health SCN has identified three key priorities that will enable us to successfully achieve this strategic direction. These priorities are:

a. Increase use of evidence-informed therapies that delay progression of kidney and associated vascular diseases.

b. Reduce variability in identification and management of glomerulonephritis.

c. Improve appropriate utilization and integration of healthcare services for people living with kidney disease.

Did you know?

In Alberta, hospitalization costs among CKD patients are $873 million per year for 56,372 hospitalizations.²⁴
Why is this important?

**Use of evidence-based guidelines:**

- Treatment goals in CKD include reducing cardiovascular risk through appropriate lifestyle management, blood pressure control, and the use of statins (lipid lowering medications), as recommended by international guidelines.\(^{25, 26}\)
- Angiotensin-converting enzyme inhibitors (ACEi) and angiotensin receptor blockers (ARBs) have been shown to delay progression to end-stage kidney disease in people with protein in their urine and reduce mortality in people with CKD and diabetes.\(^{27}\)
- There is an underutilization of ACEi and ARBs despite the strong evidence supporting their effectiveness.\(^{1}\)

**Only**

2 out of 3 non-diabetic CKD patients with albuminuria and 1 out of 3 patients with severe albuminuria → Are filling prescriptions for an ACEi or an ARBs.\(^{1}\)

- Despite evidence that statins are effective at reducing cardiovascular and kidney risk, the use of statins is also low in non-diabetic individuals with CKD over the age of 50, with only 33-39% filing a prescription.\(^{1}\)

**Identification and management of glomerulonephritis:**

- Although glomerulonephritis is not as common as other kidney diseases such as diabetes-related kidney disease, it is the second most common cause of kidney failure. Use of evidence-informed care pathways and multidisciplinary care for glomerulonephritis is variable across Alberta.
Healthcare utilization in chronic kidney disease:

- Patients with end-stage kidney disease are highly complex – on average having over 4 co-morbid conditions\(^2\). Managing these conditions requires a high degree of care coordination that is frequently not achieved.

- CKD patients on dialysis are frequent users of emergency departments. On average, there are approximately two emergency room visits per year for patients on dialysis in Alberta\(^2\).

- An estimated 10% of emergency department use in hemodialysis patients is for CKD-specific medical conditions\(^2\).

- In Alberta, hospitalization costs among CKD patients are $873 million per year for 56,372 hospitalizations\(^2\).

- Up to $54 million dollars per year in direct health costs could potentially be avoided with better management of comorbidities in CKD patients\(^2\).

- There is an absence of integrated primary and specialty care models in the management of end-stage kidney disease patients.

Our Plans

- Improve CKD care in the community using primary care supports such as the CKD Pathway (www.ckdpathway.ca), Nephrology eAdvice Request, and enhanced Comprehensive Annual Care Plan.

- Optimize use of guideline-recommended treatment (e.g. ACEi/ARBs and statins) in patients with CKD.

- Create and implement glomerulonephritis evidence-informed care pathways with accompanying provider decision support tools and patient education resources.

- Develop and implement integrated care approaches to meet the primary care needs of complex patients with end-stage kidney disease.

- Support development and implementation of emergency department and hospitalization avoidance strategies for patients with CKD.
How will we know we are successful?

- Increased use of evidence-based preventive therapies (i.e. ACEi/ARBs and statins).
- Decreased variability in glomerulonephritis diagnosis and optimized management.
- Reduced emergency department use and hospitalizations in patients with CKD.

“The unique longitudinal doctor-patient relationship that is the foundation of primary care places family physicians in the ideal position to educate, support and monitor patients around risks to health and to identify and manage chronic disease in the early stages and throughout the patient medical journey.

By fostering close partnerships with the Kidney Health SCN, there is opportunity to understand the role of primary care physicians and their teams in influencing the trajectory of early kidney disease, facilitating smoother transitions for patients with CKD as they move through their medical journey into and out of specialty care and to support patients and family members as they are impacted by chronic kidney disease – so improving patient experience and outcomes.”

- Dr. Tina Nicholson,
  Medical Director Primary Care Engagement, Physician Learning Program and Offices of CME & CPD, University of Calgary;
  Medical Lead Health Home Community, Calgary Foothills PCN and AHS Rural Section Chief, Cochrane and area.
Strategic Direction 3:
Optimize informed choice and outcomes for those living with End-Stage Kidney Disease

Our Priorities:
Under the third Strategic Direction, the Kidney Health SCN has identified four key priorities that will enable us to successfully achieve this strategic direction. These priorities are:

a. Increase access to and improve patients’ experiences with pre- and post-transplant care; and increase the rate of kidney transplantation.

b. Increase uptake of home dialysis.

c. Improve the lives and well-being of patients living with End-Stage Kidney Disease.

d. Improve transitions in care as patients start renal replacement therapy or change from one treatment approach to another.

Did you know?
As of December 31, 2017 there were 4,333 Canadians waiting for a transplant, 3,253 of them needed kidneys.
Why is this important?

Access to transplantation:

- Kidney transplant is considered the best treatment option for people with end-stage kidney disease because it improves survival, quality of life and it is less costly.

- The demand for organs far exceeds supply, leading to long wait lists. In 2017, 431 patients in Alberta were on the wait list for a kidney transplant. Twelve people on the wait list died in 2017. The average wait time for a transplant exceeds eight years in some parts of Alberta.

- In 2017, Alberta experienced a decrease in the organ donor rate compared to international levels and ranked below national targets based on deceased donors per million population (18.5 dpmp).

- Alberta’s rate of living organ donor transplants in 2017 was 16.5 dpmp, behind Manitoba (24.7 dpmp), British Columbia (20.0 dpmp), and Ontario (18.4 dpmp).

- Living donor rates have decreased by 11% nationally over the past nine years, and remain a significant untapped potential for increasing kidney transplantation rates.
In 2019, the Living Donor Kidney Transplant Working Group of the KHSCN embarked on a focused communications effort to increase awareness and education among potential living transplant recipients and donors. Below are some materials developed and used as part of our communications plan.

### Donor and Recipient Video Stories

**myhealth.alberta.ca/living-donation**

**Linda and Jane’s Story - An angel in the neighbourhood**

Linda and Jane share a laugh and a special connection through living kidney donation. This is the story of this special connection.

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**Lexi and Scott’s Story - Brotherly love**

Scott didn’t hesitate when his sister, Lexi, asked him to donate his kidney to her. “It’s family. You just do it. No questions asked.”

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**Lori and Rob’s Story - Pairing up can be a life saver**

The Kidney Paired Donation program lets this couple give, and receive, the gift of life.
Uptake of home dialysis:

- Home dialysis offers more flexibility and a better quality of life for patients.
- Most patients with kidney failure are treated with hemodialysis (HD), despite the fact that peritoneal dialysis (PD) is an equivalent therapy with respect to important clinical outcomes and is much less expensive to provide\textsuperscript{32,33}.
- Following the implementation of the START project, the percentage of patients province-wide who received PD within the first 180 days of starting dialysis increased from 25\% to 32\%. However, there was considerable variation in the degree of improvement across sites\textsuperscript{33}.
- Home hemodialysis (HD) is an underused dialysis modality, making up 5.8\% of all patients receiving dialysis in AKC-North\textsuperscript{34} and 7.4\% in AKC-South\textsuperscript{35}.
- Increasing the uptake of home dialysis therapies for eligible patients will help to decrease capacity and financial pressures on kidney care programs.

Impact of ESKD on the well-being of patients:

- End-stage kidney disease is associated with a significant reduction in physical function and mental health.
- Almost 1 in 3 hemodialysis patients in Alberta screen positive for depressive symptoms; and 1 in 5 have symptoms of anxiety\textsuperscript{36}.
- When compared to people without kidney disease, patients at every stage of CKD have greater levels of physical function impairment\textsuperscript{37}.

Transitions in care:

- Children who are transitioning from pediatric renal programs to adult renal programs are often faced with many challenges (e.g. medical, psychological and social issues) that can impact their care and outcomes\textsuperscript{38}.
- Patients with end-stage kidney disease transitioning from one treatment approach to another often face numerous challenges (e.g. inadequate education, support for physical and emotional stressors, poor coordination of care)\textsuperscript{39}. These patients also tend to have multiple comorbidities and are hospitalized more often than others, resulting in high resource utilization\textsuperscript{40}. 
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Our Plans

- Continue to work on increasing living kidney donation rates by focusing on enhancing educational resources, improving the work-up process and tracking and reporting on quality metrics.
- In partnership with other SCNs, develop strategies to identify and implement best practices for optimizing deceased donation to increase rates of kidney transplant in Alberta.
- Support the spread and scale of conservative care approaches for chronic kidney disease and other end-stage chronic diseases where appropriate.
- Utilize patient-reported experience and outcome measures to identify opportunities to improve the lives and wellbeing of patients with end-stage kidney disease.
- Develop and implement strategies to improve the continuity of care and transitions in care as patients start renal replacement therapy, change from one treatment approach to another or move from the pediatric program to the adult program.

How will we know we are successful?

- Increased rate of living donor kidney transplants.
- Increased rate of deceased donor kidney transplants.
- Increased percentage of patients on home dialysis.
- Improved patient experiences and outcomes.
Principles

The Kidney Health SCN has identified seven Principles that provide the foundation for the Network and will serve as the basis for establishing and successfully implementing our strategic directions. These principles include:

Patient and Family-Centered Care

We put the needs and perspectives of patients, families and their support systems (non-medical care providers and support networks) front and center in our work. By accessing information from patient-reported outcome measures (PROMS) and patient-reported experience measures (PREMS) we will identify gaps in care and opportunities for improvement in kidney care. We will then engage patients and their support systems in the design and evaluation of improvement strategies that address the identified gaps in care.

Engagement

We engage, seek input from and actively involve stakeholders from across the continuum of care, in the development of initiatives from planning to implementation to sustainability. This includes, but is not limited to involvement from providers, patients and families, administrators, policy makers, researchers and community partners.

"I have been involved with the Kidney Health SCN since the beginning and have been fortunate to have participated in several committees and research projects. Since its inception, I have noted how the SCN has integrated the patient voice more and more over the three years. It has moved from the patient voice being an “add on” to being fully integrated in all aspects of its work. It is now an expected component."

- Bonnie Corradetti,
  KHSCN Patient Advisor
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Culture of Quality
We foster a culture of quality improvement, based on the six dimensions of quality (as defined by the Health Quality Council of Alberta), to achieve safe, effective, patient-centered, timely, efficient and equitable kidney care.

Evidence-Informed Approaches
We endeavor to minimize unwarranted variation in kidney care and outcomes by identifying and implementing processes to reduce variation, such as guidelines and pathways, and measuring and reporting in comparison to best evidence standards. This includes taking into account local context and the needs and preferences of patients and families.

Sustainability
The KHSCN is committed to optimal use of limited healthcare resources to drive a sustainable system of kidney care based on quality and value for investment.

Research, Innovation, and Evaluation
We foster and support research and innovation in kidney health to improve outcomes, where innovation is any new evidence-informed, value-added device, technology, system or service. We evaluate our initiatives for impact on our patients and the health system.

“The Kidney Health SCN is a key partner in supporting and enabling kidney health research that spans all stages of kidney disease, with strategic priorities that will reduce risk, improve management and optimize choice and outcomes for patients. The research community in Alberta is excited to work with the SCN to improve care and outcomes for our patients.”

- Dr. Brenda Hemmelgarn, Director of Research, Division of Nephrology, Department of Medicine, University of Calgary
Pediatric Perspectives

We recognize that the needs and priorities of pediatric kidney patients, their families and their care providers are unique and have not been well incorporated in our work to date. Over the next four years, we are committed to better understanding the needs of this important patient population and integrating their perspective within our work, where there are opportunities to do so.

Enablers

We have identified seven Key Enablers that are essential to the success of the Kidney Health SCN. These Enablers include:

Performance Measurement

Performance measurement, based on reliable provincially consistent data, is required to improve the quality of decisions made regarding priorities for kidney care improvement, the evaluation of improvement initiatives, and the sustainability of positive outcomes. The Kidney Health SCN is committed to performance measurement and the transparent reporting of these measures to stakeholders. We are committed to integrating performance measurement into all projects undertaken by the Kidney Health SCN, ensuring that metrics are identified and monitored to assess if we are meeting our objectives.

Provider and Patient Education

Education for both patients and providers continues to be an important priority for improving kidney care in Alberta. Over the next four years we are committed to continuing to implement evidence-informed, provincially consistent patient education, knowledge translation and multi-disciplinary provider education strategies through all our initiatives.
Partnerships

The Kidney Health SCN is committed to continuing to partner with AKC, SCNs, Primary Care, other groups and organizations to improve the continuity of care and outcomes for patients and their families.

Communication

To ensure the KHSCN achieves our mission, effective communication is essential. All KHSCN initiatives will incorporate strategies to optimize communication between providers, and between patients and providers to ensure that information is accessible throughout the patient’s journey, and thereby improve the delivery of kidney care and health outcomes. The KHSCN Communication and Engagement plan will ensure we address this enabler.

Clinical Pathways

The KHSCN will utilize and promote the use of clinical pathways, consisting of evidence-informed, patient-centered interdisciplinary care to help providers identify, and manage patients affected by kidney disease achieve optimal health outcomes.

Patient Reported Outcome Measures (PROMs) & Patient Reported Experience Measures (PREMs).

The KHSCN is committed to identifying, validating and implementing both PROMs and PREMs in patients with kidney disease, as part of the measures for success for each of our strategic directions. We will ensure that measurement is linked to clinical pathways to improve patient symptoms and outcomes.
Technology

The implementation of Connect Care, Alberta’s common provincial clinical information system, will enable consistent practices across Alberta and will improve the care we provide for patients and their families. The whole healthcare team, including patients, will now have the best possible information throughout the care journey, improving healthcare for both patients and healthcare providers. The KHSCN will explore and support utilizing Connect Care to enable quality improvement and health systems research. We are also committed to exploring options for automated reporting, implementing innovative care models, and leveraging Health Technology Assessments to evaluate emerging technologies.

Conclusion

The strategies identified in this four year Transformational Roadmap will push Alberta to a leadership position within Canada in prevention, treatment and application of evidence-informed practice at all levels of kidney care, and will improve outcomes for patients and our health system. We look forward to continuing to work together with AKC and our other network partners to meet the challenges and opportunities ahead.
Glossary

Acute Kidney Injury (AKI)  An abrupt or rapid decline in kidney function that often occurs in people with acute medical and surgical illness and those who are hospitalized. When severe patient may need to start dialysis urgently. The condition is associated with prolonged hospital admission, high costs of care, and short and long-term morbidity and mortality including CKD.

Appropriateness  Health services are relevant to user needs and are based on accepted or evidence-based practice.

Albuminuria  Albumin is the main protein found in the blood, and small amounts of albumin appear in the urine normally. Albuminuria refers to an excess amount of albumin in the urine, and is a sensitive marker of kidney disease. People with albuminuria are at higher risk of progression to kidney failure, as well as heart attacks and stroke.

Angiotensin-Converting Enzyme inhibitors (ACEi)  A pharmaceutical drug used primarily for the treatment of hypertension (elevated blood pressure) and congestive heart failure.

Angiotensin Receptor Blockers (ARB)  A pharmaceutical drug that helps relax your blood vessels, which lowers your blood pressure and makes it easier for your heart to pump blood.

Chronic Kidney Disease (CKD)  A common, complex, chronic condition, usually occurring in conjunction with other chronic diseases (such as diabetes and cardiovascular disease), that results in the progressive loss of kidney function over a period of months or years. CKD is defined as abnormalities of kidney structure or function (estimated glomerular filtration rate<60 mls/min/m\(^2\) – see below) present for >3 months

Comorbidity  Comorbidity refers to other chronic medical conditions a patient may have. The simultaneous presence of two chronic diseases or conditions is termed multi-morbidity.
| Kidney Health SCN  
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<tr>
<td><strong>Conservative Kidney Management (CKM)</strong></td>
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<td><strong>Dialysis</strong></td>
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<td><strong>Early CKD</strong></td>
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<td><strong>End-stage kidney disease (ESKD)</strong></td>
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<td><strong>Estimated Glomerular Filtration Rate (eGFR)</strong></td>
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<td><strong>Glomerulonephritis (gloe-mer-u-lo-neh-FRY-tis)</strong></td>
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<td><strong>Hemodialysis (HD)</strong></td>
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<td><strong>Kidney failure</strong></td>
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<td><strong>Deceased donor transplant</strong></td>
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<td><strong>Patient-reported experience measure (PREM)</strong></td>
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<td><strong>Patient-reported outcome measure (PROM)</strong></td>
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| Kidney Health SCN  
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| **Peritoneal Dialysis (PD)** | Peritoneal dialysis is when the blood is cleaned inside the body through the peritoneum. A soft rubber tube is placed in the abdomen and clean dialysis fluid is poured in and out of the abdomen 4 times per day, or using a cycler machine which does the dialysis at night while people sleep. |
| **Renal Replacement Therapy (RRT)** | Therapy that replaces the normal blood-filtering function of the kidney, or replaces the kidney, including: hemodialysis, peritoneal dialysis or kidney transplant. |
| **Statin** | A class of lipid-lowering medications that inhibit the enzyme HMG-CoA reductase which plays a central role in the production of cholesterol. |
| **Strategic Clinical Networks (SCNs)** | Networks developed by Alberta Health Services comprised of people who are passionate and knowledgeable about specific areas of health, challenging them to find new and innovative ways of delivering care that will provide better quality, better outcomes and better value for every Albertan. |
## Appendix A: SCN Leadership and Core Committee Members

| Leadership Team          |  |
|--------------------------|  |
| Nairne Scott-Douglas, Dr. | Senior Medical Director |
| Louise Morrin            | Senior Provincial Director |
| Anita Kozinski           | Executive Director |
| Terry Smith              | Manager |
| Neesh Pannu, Dr.         | Scientific Co-Director |
| Scott Klarenbach, Dr.    | Scientific Co-Director |
| Loreen Gilmour           | Assistant Scientific Director |
| Marni Armstrong (maternity leave) | Assistant Scientific Director |

<p>| Core Committee Members   |  |
|--------------------------|  |
| Andrew Wade, Dr.         | Pediatric Nephrologist, Alberta Children’s Hospital |
| Anthony Brannen          | Site Administrator, St. Joseph’s General Hospital/Mundare Mary Immaculate, Covenant Health |
| Barbara Salter           | Unit Manager, Hemodialysis, Alberta Kidney Care |
| Benjamin Farnell         | Manager, Health Innovation Partnerships &amp; Strategy Unit, Alberta Health |
| Bob &amp; Marilyn Stallworthy| Patient Advisors (Calgary) |
| Bonnie Corradetti        | Patient Advisor (Calgary) |
| Branko Braam, Dr.        | Internist, Nephrologist, Nephrology Section Chief: Alberta Kidney Care |
| Carol Easton             | Executive Director, Alberta Kidney Care &amp; ALTRA |
| Catherine Morgan, Dr.    | Nephrologist, Pediatrics, University of Alberta |
| Cathy Osborne            | Senior Operating Officer, University of Alberta Hospital, Mazankowski Alberta Heart Institute, Kaye Edmonton Clinic |</p>
<table>
<thead>
<tr>
<th>Name</th>
<th>Position/Responsibility</th>
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<tbody>
<tr>
<td>Deanna Paulson</td>
<td>Director, Transplant Services, University of Alberta Hospital</td>
</tr>
<tr>
<td>Dan Muruve, Dr.</td>
<td>Medical Director, Alberta Kidney Care</td>
</tr>
<tr>
<td>Denise Fillier</td>
<td>Patient Care Manager, Alberta Kidney Care</td>
</tr>
<tr>
<td>Flavia Robles</td>
<td>Executive Director, Kidney Foundation (Northern Alberta &amp; The Territories)</td>
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<tr>
<td>Fozia Alvi, Dr.</td>
<td>Family Physician, Calgary</td>
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<tr>
<td>Frances Reintjes</td>
<td>Unit Manager, Home Dialysis, Alberta Kidney Care</td>
</tr>
<tr>
<td>Janet Stadnyk</td>
<td>Director, Nutrition &amp; Food Services</td>
</tr>
<tr>
<td>Janice Stewart</td>
<td>Senior Operating Officer, Peter Lougheed Centre</td>
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<tr>
<td>Jenny Wichart</td>
<td>Clinical Practice Lead, Pharmacy</td>
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<tr>
<td>Jia Hu, Dr.</td>
<td>Medical Officer of Health, Calgary Zone</td>
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<tr>
<td>Joyce Van Deurzen</td>
<td>Executive Director, Kidney Foundation (Southern Alberta)</td>
</tr>
<tr>
<td>Julie Nhan</td>
<td>Nurse Practitioner, Nephrology, Alberta Kidney Care</td>
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<tr>
<td>Kailash Jindal, Dr.</td>
<td>Medical Lead Alberta Kidney Care North &amp; Professor of Medicine (Nephrology), University of Alberta</td>
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<tr>
<td>Kathryn Iwaasa</td>
<td>Patient Care Manager, South Zone</td>
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<tr>
<td>Kym Jim, Dr.</td>
<td>Nephrologist, Central Zone</td>
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<tr>
<td>Leasa Sulz</td>
<td>Renal Transplant Coordinator, Alberta Kidney Care</td>
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<tr>
<td>Lee Anne Tibbles, Dr.</td>
<td>Transplant Nephrologist, Southern Alberta Transplant Program (ALTRA)</td>
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<tr>
<td>Matthew James, Dr.</td>
<td>Assistant Professor, University of Calgary; Nephrologist</td>
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<tr>
<td>Meghan Elliott, Dr.</td>
<td>Nephrologist, Calgary Zone</td>
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<tr>
<td>Nancy Verdin</td>
<td>Patient Advisor, Central Zone</td>
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<tr>
<td>Neil Thompson</td>
<td>Social Worker, Alberta Kidney Care</td>
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<tr>
<td>Sadia Shakil, Dr.</td>
<td>Family Physician, Edmonton</td>
</tr>
<tr>
<td>Samantha Cassie</td>
<td>Director, Provincial Services, Alberta Health</td>
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<tr>
<td>Sandra Cockfield, Dr.</td>
<td>Medical Director, Renal Transplant Program Northern Alberta</td>
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<tr>
<td>Sandra Vanderzee</td>
<td>Director, Alberta Kidney Care</td>
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<tr>
<td>Sherie Allen</td>
<td>Senior Operating Officer, North (Central Zone)</td>
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<tr>
<td>Stephanie Thompson, Dr.</td>
<td>Nephrologist, University of Alberta Hospital (Edmonton)</td>
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<tr>
<td>Stacy Greening</td>
<td>Senior Operating Officer, North Zone</td>
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<tr>
<td>Taryn Gantar</td>
<td>Patient Advisor (Edmonton)</td>
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<tr>
<td>Teri Myhre</td>
<td>Senior Operating Officer, Acute Care West – South Zone</td>
</tr>
<tr>
<td>Tina Nicholson, Dr.</td>
<td>Medical Director Primary Care Engagement, PLP and Offices of CME &amp; CPD, UofC. Medical Lead Health Home Community, Calgary Foothills PCN, AHS Rural Section Chief, Cochrane and area</td>
</tr>
<tr>
<td>Tracy Schwartz</td>
<td>Patient Care Manager, Alberta Kidney Care</td>
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<tr>
<td>Vishal Bhella, Dr.</td>
<td>President, Alberta College of Family Physicians, Family Physician, South Health Campus</td>
</tr>
</tbody>
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**Supporting Members**

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Allan Ryan</td>
<td>Director, Clinical Analytics</td>
</tr>
<tr>
<td>Colleen Shepherd</td>
<td>Director, Information Technology Clinical Services</td>
</tr>
<tr>
<td>Darryl Lacombe</td>
<td>Senior Consultant, Engagement &amp; Patient Experience</td>
</tr>
<tr>
<td>Karen Chinaleong-Brooks</td>
<td>Senior Consultant, Engagement &amp; Patient Experience</td>
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<tr>
<td>Rachael Erdmann</td>
<td>Analyst, Health Technology Assessment &amp; Innovation</td>
</tr>
<tr>
<td>Susan Sobey-Fawcett</td>
<td>Senior Planner, Planning &amp; Performance</td>
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<tr>
<td>Terry Baker</td>
<td>Senior Consultant, Strategic Clinical Networks</td>
</tr>
</tbody>
</table>
References

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Related Documents

Transformational Roadmap Summary (2019 – 2023)
Transformational Roadmap at a Glance (2019 – 2023)
Transformational Roadmap (2016 – 2019)