BCRenal
Provincial Health Services Authority

Highlights from fiscal year 2022 – 2023

Value-Added RRP Dollars from Industry Support Innovation, Improve Renal Care

Over the past fiscal year, kidney care teams continued to adapt to and build upon the lessons learned from the COVID-19 pandemic, while also dealing with varied other challenges, including those posed by increasing climate-related emergencies. Through it all, care teams continued to support patients and each other, as well as seek opportunities to improve care, as reflected in this document. At BC Renal, we extend our heartfelt gratitude to everyone in our kidney care network for your resolute dedication.

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Value-added regional renal program (RRP) funds from provincial renal contracts negotiated by BC Renal (BCR) and the Provincial Health Services Authority improve care for patients and quality of work-life for kidney care providers across BC.

The majority of these funds are allocated to health authority renal programs (HARPs) to meet diverse needs at the local level, while a portion of the money is used to support cross-provincial initiatives of the BC renal network.

Value-Added Funds Support Provincial Initiatives

COVID-19 Pandemic, Natural Disasters and Value-Added Funds
Due to the lingering impact of the COVID-19 pandemic, some planned provincial and regional projects and initiatives for the 2022-2023 fiscal year were put on hold or timelines were extended. Value-added funds were used to support a number of post-pandemic-focused provincial projects. These included an evaluation of the shift from in-person clinical visits to mixed virtual and in-person care across BC's kidney care clinics, continued development of a toolkit to enhance team-based and collaborative models of care in BC's dialysis units, and the introduction of new, emergency-focused team member roles at in-centre HD units.

Similar to previous years, a portion of the available value-added dollars was used to enhance BC Renal's emergency response to various natural disasters, including wildfires and floods, which resulted in a number of kidney patients being cut off from their regular treatment facilities and kidney care supply chains.

Patient Education Tools
Value-added dollars continued to support the development and enhancement of a range of patient education resources that promote patient self-management and improved health outcomes. These include patient handouts and tools on a range of topics across the spectrum of kidney care.

Province-Wide Patient Experience Survey
In early 2022, BC Renal conducted our fourth province-wide patient experience survey, including all patients (adult and pediatric) actively receiving dialysis or kidney care across the province. Almost 4,000 surveys were completed by phone, online and mail.

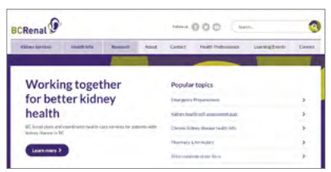
Over the 2022-2023 fiscal year, our team analyzed and communicated the results to the BC renal network and kidney patients through a series of reports – provincial, care modality (e.g. hemodialysis, peritoneal dialysis, etc.) and health authority-specific. A letter was also mailed to all survey respondents, including an infographic with key survey results and information about resources available through BC Renal and The Kidney Foundation's Wellness Hub.

Provincial action planning to address improvement opportunities highlighted by the survey results will be integrated into the 2023-2028 BC Renal strategic plan.

Supporting Meaningful Patient Engagement
Guided by the *BC Renal Patient and Family Engagement Framework* published in 2019, BC Renal continued to support and advance meaningful patient engagement across our provincial committees and key activities. As of March 31, 2023, 130 patients and family members were part of the network, with 30 actively participating across our provincial committees and working groups, as well as taking part in other engagement opportunities. We also partnered in the next phase of KidneyLink (Can-SOLVE CKD Network), explored synergies with the UBC InterCultural Online Health Network (iCON) and presented an e-poster at the Canadian Society of Nephrology AGM.

* All network members receive updates about volunteer and educational opportunities as well as other key network activities
** All active patient partners have completed an orientation

BC Renal Website
Value-added dollars continue to support ongoing development and improvement of the BC Renal website. New information and tools for patients and care teams are added to the website on a regular basis, as well as our YouTube channel. Both the website and our YouTube videos are trusted sources of information for kidney care providers and patients, not only across BC, but around the world. In the last six months of the fiscal year, the website had over 31,600 visitors and more than 192,500 page views. In the same period, our YouTube videos had almost 72,000 views.



PROMIS Enhancement
PROMIS is an integrated, provincial registry and clinical information system for renal and transplant care provided to more than 30,000 patients in BC. It provides real-time, accurate data to over 1,500 users, supporting a broad range of clinical, administrative, QI and research activities, all of which are focused on two key outcomes: better health for kidney and transplant patients, and the best use of healthcare resources. Over the past year, PROMIS continued to support system enhancements driven by the Transplant First project, as well as proof of concept integration projects that deliver a local solution with the ability to scale to other health authorities.

BC Renal Strategic Planning Process
As BC Renal was nearing the completion of its 2018-2023 strategic plan, we embarked on a comprehensive engagement process to identify strategic priorities for the next five years. The first step, in September 2022, was a network-wide survey of kidney care professionals, medical and administrative leaders, patient partners, researchers, BC Renal staff and other key partners. Then, in October 2022 BC Renal hosted a strategic planning day, with over 100 participants, including BC Renal provincial committee members (clinical and patient partners), health authority renal program leadership and BCR staff. The collective input has informed updates to the BC Renal vision, purpose and core values, as well as development of five-year strategic priorities and a framework for strategy deployment.

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Support for Provincial Committee Initiatives
Value-added funds support the ongoing work of a range of BC Renal provincial committees (Kidney Care, Hemodialysis, Home Hemodialysis, Peritoneal Dialysis, Palliative Care, Pharmacy, Glomerulonephritis, Renal Administrators, etc.). These committees provide a forum for province-wide, multidisciplinary collaboration and knowledge sharing related to kidney disease care and management. The committees are involved in a range of projects and produce a variety of evidence-based, provincial guidelines that help improve the care of kidney patients in BC. Guidelines and patient education tools developed by these committees are available on the BC Renal website at BCRenal.ca in the 'Health Info' and 'Health Professionals' sections.

Kidney Month Campaign and World Kidney Day
In March, BC Renal collaborated again with the Kidney Foundation of Canada - BC and Yukon Branch on a multifaceted public awareness campaign linked to our online Kidney Health Check assessment. The campaign is focused on higher-risk populations, shares information about main risk factors for kidney disease and encourages audiences to take the quiz to see if they should see a family doctor. It includes the KidneyHealthCheck.ca website, organic social media, online and in-person advertising (Facebook, Instagram, Chinese/Punjabi online media, TransLink bus wraps and SkyTrain posters). We also repeated our popular 31-day #KidneyHealthChallenge calendar of social media posts with tips about healthy foods, fluids and lifestyle. Newsletters for Kidney Health Month and World Kidney Day further promoted all of our materials. The campaign resulted in over 9,200 visits to kidneyhealthcheck.ca and 3,605 completed assessments.

Emergency Preparedness
With the increasing frequency of forest fires, floods and extreme heat events in recent years, BC Renal has prioritized a strategy to support agile emergency response within and across health authorities. Phase 1 included development of a range of emergency resources with input from the renal network. Phase 2 was the development of a Hemodialysis Emergency Support Team (HEST), which will enable health authority renal programs to hire HEST clinical resource nurses to support provincial hemodialysis care in emergencies or natural disasters. In non-emergency times, team members will provide mentorship within their hemodialysis programs.

During Emergency Preparedness Month each May (as well as throughout the year), BC Renal helps raise awareness about emergency preparedness among kidney care teams and patients through newsletters, social media posts and promotion of various resources. For more information and resources, see the emergency preparedness pages on the BC Renal website.

Nephrology Fellows
A key component of the BC Renal mandate is to support knowledge development through research and teaching, as well as succession planning within the broader renal network. One strategy to achieve this goal is the funding of a number of clinical (advanced nephrology, palliative care, glomerulonephritis care), administrative and research fellowships as well as short-term administrative course work. More

World Kidney Day

information is available on the BC Renal website – go to BCRenal.ca and click on 'Careers'.

Kidney Check: Identifying Kidney Disease and Diabetes in Indigenous Communities
BC Renal continues to collaborate with the Can-SOLVE CKD network, First Nations Health Authority and HA renal programs to execute the screening program to rural and remote Indigenous communities. The Kidney Check program includes kidney, diabetes and blood pressure monitoring, as well as culturally appropriate, individualized follow-up and support to rural and remote Indigenous communities. Embedding cultural safety and humility in the delivery of these services is a key objective, and the team continues to support referral to follow up care as needed for previously tested individuals.

Value-Added Funding Supports Regional Programs and Local Innovation

The needs of kidney patients are diverse, and the use of value-added funds at the renal program level supports local initiatives in tune with community needs, while staying aligned with provincial direction. Around the province, regional and local projects and activities funded in part with value-added dollars in the 2022-2023 fiscal year included the following:

Pathway Development Projects – BC Children's Hospital
The BC Children's Hospital (BCCH) renal program traditionally spends a portion of its allocated value-added dollars to support its pathway development team in a variety of ways. The program also relies on these funds to print and distribute its pathway-related materials as important teaching tools supporting pediatricians and the large population of children with nephrotic syndrome across the province. The handbooks are used as teaching tools for patients, resident physicians at the BCCH, and general pediatricians across BC to standardize best evidence-based care.

Childhood nephrotic syndrome: Expanding a clinical pathway
The childhood nephrotic syndrome clinical pathway was initiated in 2013, and provides standardized, evidence-based, multidisciplinary and prescriptive clinical care for children with this common chronic kidney disorder. In 2022, 13 children with new onset nephrotic syndrome were enrolled into the nephrotic syndrome clinical pathway at BC Children's Hospital. Value-added funds ensured that each family received a nephrotic syndrome toolkit, which contains key educational and practical resources. Since their launch in 2017, more than 100 toolkits have been distributed and, thanks to ongoing RRP support, they continue to be an important means of helping families co-manage their child's condition from home.

Essential to the team's quality improvement mandate is their ongoing audit process. Thus far, audit data has been central to benchmarking the impact of the nephrotic syndrome clinical pathway on local care processes

> The childhood nephrotic syndrome clinical pathway focuses on defining the long-term outcomes of the BCCH patient population and determining risk factors for outcomes at early age to enable stratification of care.

and health outcomes. With the support of value-added funds, the collection of longer-term audit data is underway, which marks an important first step towards developing formal recommendations for the care of children who do not respond as well to traditional steroid therapy. Work in this area is ongoing but will ultimately support the broadening of the pathway to include more complicated types of nephrotic syndrome.

Value-added funds also continue to support the development of a clinical pathway related to **congenital anomalies of the kidney.** This project focuses on defining the long-term outcomes of the BCCH patient population and determining risk factors for outcomes at early age to enable stratification of care. Congenital anomalies of the kidney are the most common cause of chronic kidney disease in children. Last year, the project team continued to refine a model to predict, which children are at highest risk to progress to hypertension or kidney failure. With care stratified according to a patient's projected level of risk, higher risk patients are seen more frequently and with more extensive investigations than lower risk patients.

Pediatric hypertension: Developing a new clinical pathway
Value-added funds have been essential for galvanizing a novel pediatric hypertension clinical pathway. Key milestones achieved during the 2022 fiscal year include: assembling a core multidisciplinary team, including two pediatricians, which meets monthly to discuss and progress pathway initiatives; reaching consensus and formalizing recommendations for how to measure blood pressure, diagnose hypertension, and investigate causes of secondary hypertension, and; analyzing the historical cost of initial testing at the BCCH centre, as well as the potential cost-savings associated with using the pathway's more standardized approach. Together, these accomplishments form the foundation upon which future work in this area will be based.

Clinical Pathway Engagement: Trainee Collaborations – BC Children's Hospital
Building a clinical pathway is a resource-intensive process made possible (and more enriching) with the help of various partners, including undergraduate students, medical residents, and nephrology fellows. In January 2023, value-added funds were used to support the involvement and then dissemination of study results by two trainees at the annual Western Medical Research Conference in Carmel, California. The first was a cost-analysis study, which demonstrated that standardizing the number and type of tests used to identify causes of secondary hypertension could result in cost savings for the healthcare system

and fewer needle pokes for children. The second study described risk factors associated with the development of hypertension in children born with a kidney defect. Findings from both these studies will directly impact the scope of recommendations to be included in two upcoming clinical pathways currently in development at BCCH: the pediatric hypertension clinical pathway and the congenital anomalies clinical pathway. Manuscripts summarizing the results of each study are also in preparation.

Ambulatory Blood Pressure Monitoring (ABPM) Program – BC Children's Hospital
Diagnosis and management of hypertension for children with kidney disease is accurately evaluated with 24-hour automated ambulatory blood pressure monitoring. In fact, the BCCH renal program has observed over the years that improved BP management of children with kidney disease may potentially reduce the burden of kidney failure and cardiovascular disease in adulthood. Value-added funds enabled the program to courier ABPM equipment to patients who live in communities all across the province, supporting equitable access to this valuable tool. The program noted enhanced care of patients across the entire province, especially during and in the wake of the pandemic, through the accessibility of home blood pressure measurements for patients.

Deep Dive into Low Home Dialysis Rate in Fraser South – Fraser Health
Fraser Health (FH) renal program conducted a study to investigate the comparatively lower home dialysis rates in the Fraser South region. Through a literature review, three common barriers were identified: patient education, staff education, and peer support. After drilling down into these issues with surveys of patients and staff, five key recommendations were formulated. These include organizing travelling roadshows to educate potential patients at in-center hemodialysis units, providing education sessions for HD and kidney care clinic staff, establishing a peer support program for kidney patients, involving patient partners from diverse ethnic backgrounds, and surveying patients who chose HD from KCC to understand their decision-making process and reasons for choosing facility-based

HD, particularly the concerns of patients who could be suitable for a home modality.

The overarching goal of this project is to raise awareness and education about home dialysis, leading to an increase in the number of patients transitioning to peritoneal dialysis (PD) and home hemodialysis (HHD) in Fraser South. With this in mind, the Fraser Health renal program decided to extend the project into phase 2, focused on implementing the recommendations and targeting patient education at specific groups, including crash starts, rapidly declining KCC patients, and routine KCC patients.

Renal Technician In-House Training Program: Part Two – Fraser Health
In the fiscal year 2021-2022, the Fraser Health renal program developed a standardized training program for renal technicians (RTs). Last year, the program implemented part 2 of the Renal Technician In-House Training Program, which involved 10 RT students undergoing a week-long theory class and a 6-week preceptorship at their assigned units. Although all students eventually started working as casual RTs after course completion, feedback indicated the one-week theory class may have been insufficient given the extensive information presented.

The FH renal program will preserve the training process, course structure, and materials from this in-house program for future cohorts, and some of the materials may be adapted for short education sessions or orientations for new staff. Fraser Health is open to collaboration with other health authorities and educational institutions, such as VCC and BCIT, to develop a comprehensive online course that can benefit all renal programs in BC. By using the current in-house training as a foundation, the proposed online theory course could be universally applicable, while clinical training and preceptorship would be provided by respective renal programs at their local sites. Ultimately, establishing a provincially-approved RT online course could standardize RT hiring requirements across the province.

Renal Wellness Virtual Group Education Sessions – Fraser Health
With the support of value added funding, the Fraser Health renal program was able to conduct several renal wellness virtual group education sessions, featuring two streams: social work (SW) and registered dietitian (RD). In the SW stream, the project team performed a literature review on depression, anxiety, and coping strategies related to kidney diseases and developed two presentations spanning resources for renal patients and emotional wellness, followed by four virtual sessions for kidney patients.

Similarly, the project team delivered two virtual group education sessions in the RD stream, focusing on nutrition after transplant and management of potassium.

With lessons learned about session promotion, registration and timing, the renal program will continue to offer the education sessions to kidney patients regularly, with future opportunities to expand their reach to other health authorities.

The presentations will be shared with relevant partners, including other health authorities and post-kidney transplant RDs, to enhance patient education and reach a broader audience. Opportunities to expand the virtual session catalog to include topics such as cholesterol and diabetes management will be explored.

Streamlining EMRs to Improve Patient Care, Reduce Wait Times in Outpatient Nephrology Care – Fraser Health
The Fraser Health renal program implemented a project aimed at improving patient care and standardizing processes in outpatient nephrology care by streamlining electronic medical records (EMRs) across four nephrology offices in Fraser Health. The initiative involved creating standardized lab, imaging, medical daycare, and other pre-printed order (PPO) requisitions. Referrals to kidney care clinic (KCC), PD catheter insertions, renal biopsies, and radiology were streamlined, and patient educational content for chronic kidney disease (CKD) care was updated. Additionally, permissions were granted for the nephrology division members to view each other's outpatient charts, enhancing continuity of care, particularly overnight.

These measures have resulted in streamlined and standardized practice patterns, with the renal program PPOs updated to ensure appropriate forms are utilized by all nephrologists. Ultimately, the project hopes to achieve a more uniform approach to kidney care and follow-up across Fraser Health, regardless of patient location.

To sustain the improvements, ongoing maintenance of the EMR is required to accommodate new

PPOs, and permissions will be regularly updated as new members join the group. Furthermore, educational content related to diet, exercise, and new kidney medications will be continually updated.

Using a Self Management Approach to Develop Targeted Interventions for Patients with Chronic Excessive Interdialytic Weight Gains (IDWG): Part Two – Fraser Health
A research team at the Fraser Health renal program used a portion of the available value added funding to conduct part 2 of a project to develop targeted interventions using a self-management approach for patients with chronic excessive interdialytic weight gains (IDWG). The team used additional funding to further test a compliance system aligned with the goal of IDWG control, promoting awareness of comorbidities affecting IDWG for clinicians and empowering patients to achieve control over IDWG. The implementation and reinforcement of educational interventions improved patient self-management skills and understanding of the importance of stability in IDWG. The project onboarded 12 additional patients to test the tool, in addition to the 2 patients from the previous cohort joining this phase, leading to insights that arbitrary determination of goal weights may be ineffective, and alternative identification methods are necessary.

Multiple outcomes aligned with initial expectations, including improved patient understanding of stable weight gains between treatments, a compliance system reinforcing education, and alignment with goal setting. One key learning was that clinician workload must be addressed to formalize inclusion at point-of-care activities. Resource development for patient and clinical staff teaching is ongoing, with a focus on accurate quantification of fluid status. The recommendation is to explore alternative methods, such as the Body Composition Monitor using bio impedance technology, to accurately monitor hydration and determine individual dry weights. This will enhance the benefits of self-management protocols and intensive follow-up for patients with IDWG.

Fraser Health Tunneled Dialysis Catheter Review – Fraser Health
Fraser Health conducted a comprehensive review of tunneled dialysis catheters, including catheter failure and use of tissue plasminogen activator (TPA), using PROMIS data for a year-long period (January 2019 - January 2020). The data review stage was completed during the previous fiscal year, and 160 catheters were selected for in-depth review in 2022/23. Through identification of factors associated with better and worse catheter outcomes, the review aims to inform standardized practices, improve patient outcomes, and reduce the need for catheter changes, TPA use, and potential catheter infections. Once the data analysis is completed, the findings will be reported and formulated into a publishable article, and the insights will be used to potentially inform further studies.

Quality Improvement – Interior Health
The Interior Health (IH) renal program invested a portion of available value-added funds for a dedicated improvement consultant and coordinator to support, manage and oversee regional and site-specific quality improvement activities, projects and education. Last fiscal year, a five-year Renal Program Tactical Plan was developed, a new Renal Program Quality Council was established, and a Renal Quality Improvement System was launched.

The model of centralized support and QI oversight proved highly successful, supporting continuity and sustainability of innovative projects and contributing to an engaged workforce. The program has shared learnings with partners across the province, with several expressing strong interest in trialing a similar approach on a proof-of-concept basis to improve their QI initiative accomplishment and success rates.

Culinary Medicine for PD & CKD: Part Three – Interior Health
A team of renal registered dietitians (RDs) from the Kelowna General Hospital (KGH) renal program continued to work on a project to better understand and promote the benefits of plant-based protein

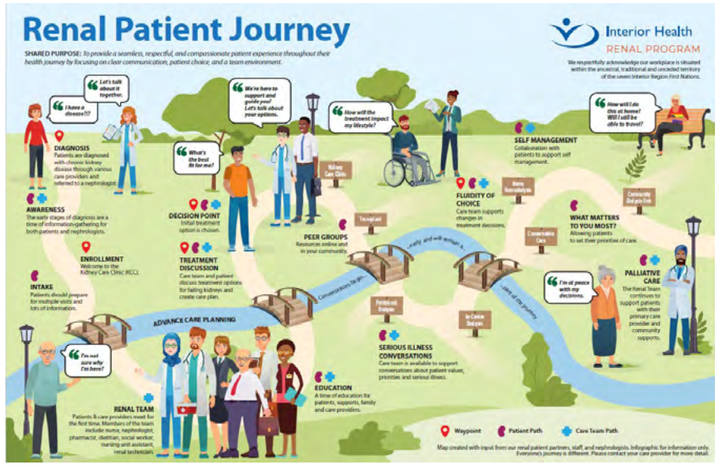
(PBP) diet for people living with chronic kidney disease (CKD). Building on the accomplishments from the previous year's work, the team made several advancements:

- Completion of an Interior Health website with resources on PBP, highlighting how culinary medicine and PBP can support self-management and slow the progression of CKD.
- Completion of content for a kidney nutrition basics class, which can be delivered virtually or in-person to patients and includes interactive exercises to engage learners.

The resources are being used by IH renal dietitians in their clinical practice, as well as by non-renal and diabetes outpatient RDs who work with clients with early stage kidney disease. The IH renal program plans to continue supporting the work of the culinary medicine project team to help slow the progression of CKD among patients, and will also work to promote the website and recruit CKD patients to provide further feedback.

Home Hemodialysis Transition Training: Part Two – Interior Health
The IH renal program continued an assessment of the home hemodialysis (HHD) program to better understand gaps in training and ensure sustainability. In the second year of the initiative, the team hired a dedicated HHD navigator position for the Penticton and Kamloops clinics to address identified needs, and developed a standardized orientation manual and training guideline. Project outcomes and learnings will be shared with BC Renal and the regional health authority renal programs.

Renal Patient Journey Mapping Event – Interior Health
Interior Health organized a successful renal patient journey



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mapping event, enabling participants to gain a shared understanding of the kidney patient journey from diverse perspectives. Outcomes included a purpose statement, a visual representation of the journey, and a 3-year tactical plan focused on program priorities.

The creation of the final renal patient journey map involved input from a graphic artist, patient partners, leadership, and staff. The infographic is prominently displayed in all renal units, and staff now wear name badges encouraging patients to inquire about their renal journey, promoting patient involvement and informed care.

Project outcomes and the tactical plan have and will continue to be shared regionally and provincially with relevant teams and committees, including the BC Quality Forum and BC Kidney Days. The development of an ongoing process for performance monitoring and evaluation of the work plan will ensure continued improvement and patient engagement in care.

Renal Program Staff Resilience Initiative – Interior Health
The Interior Health renal program conducted a successful team resilience event for staff and nephrologists through a virtual presentation by motivational speaker Linda Edgecombe. The presentation emphasized re-focusing, re-energizing, and re-inventing life and work post-pandemic.

In addition to the motivational session, participants were provided access to an online course on resiliency. Renal managers facilitated follow-up discussions with site staff, encouraging conversations about achieving work-life balance.

The positive experience of engaging a virtual motivational speaker across multiple sites will be shared with BC Renal committees.

Renal Palliative Care and End-of-Life Gap Analysis – Interior Health
The Interior Health renal program used a portion of the available value-added funds to support a comprehensive palliative care and end-of-life gap analysis, which validated challenges experienced within the renal program's geographically dispersed units. The analysis highlighted the importance of team collaboration, person-centered care, and strong social work involvement, with staff understanding the significance of having conversations on this topic.

The plan to address identified gaps includes multiple strategies and education sessions tailored to the needs of the local renal units. The project will establish which tools provide the highest value and promote them as best practice standards across sites, and outcomes will be reported to site managers for further discussion and implementation of local improvement opportunities.

The project's results will also be shared with the BC Renal Palliative Care Committee, complementing the provincial integrated palliative care project's evaluation. The IH Palliative Care and End-of-Life Committee will continue working on the project's outcomes to enhance palliative and end-of-life care within the renal program, ensuring that patient needs are addressed comprehensively and compassionately.

Life Cycle Assessment (LCA) in Kidney Care – Interior Health and Island Health
The Life Cycle Assessment in Kidney Care project has been a collaborative effort involving BC Renal, Interior Health, Island Health, UBC Planetary Healthcare Lab, and UBC Okanagan's School of Engineering, with Dr. Caroline Stigant serving as a pivotal collaborator.

> The initiative successfully raised awareness among a core group of leaders, including first-level nursing leaders, regarding the urgency of addressing the climate emergency.

The project includes a comprehensive study examining the environmental impact of nephrology practices and kidney replacement therapy across modalities of care. Dr. Stigant actively engaged staff and leaders across the BC renal network, but particularly in Island Health, providing insights from the study and facilitating discussions on practices that could be modified to mitigate negative environmental impacts.

Photo by Melody Charlie

The initiative successfully raised awareness among a core group of leaders, including first-level nursing leaders, regarding the urgency of addressing the climate emergency. Moreover, the study's findings are expected to exert lasting influence on the strategic planning efforts of BC Renal, the Renal Administrators Committee, and the Executive Committee, shaping healthcare practices for years to come as they respond to the pressing environmental challenges of our time.

Building Program Engagement – Island Health (Central Island)
To bolster program engagement, Central Island executed a multifaceted approach to enhance team planning and prioritization. The initiative included the design, implementation, and facilitation of multidisciplinary, bi-annual team planning sessions and development of a structured annual planning cycle, standardized processes and tools and a draft communication strategy to optimize information and knowledge sharing. The renal program also initiated a Systemic Team Coaching program for the senior leadership team to enhance team effectiveness and create a foundation for improving performance, function, well-being, engagement and development across the program.

It is expected that the project will improve access to vital information and streamline the program's ability to meet reporting requirements to BC Renal, and the team is happy to share the acquired knowledge and tools with colleagues in other HARPs.

Optimizing Health Human Resources (HHR) in Hemodialysis Units – Island Health (South Island)
The project introduced a series of strategic measures to optimize staffing and service delivery in Island Health hemodialysis units. This included the integration of Licensed Practical Nurses (LPNs) trained in hemodialysis into in-centre dialysis units in Nanaimo and Victoria. The project team drew upon insights gained from site visits to other hemodialysis units in BC that had successfully integrated LPNs, shaping the team's change management strategies and helping to develop "day in the life" planning scenarios.

> The benefits include increased opportunities to fill vacant positions, addressing staffing shortages, providing career advancement for LPNs, and ensuring a sustainable nursing workforce for the future.

A dedicated direct care nurse champion was engaged to lead change management activities, including peer-to-peer pre- and post-evaluations for dialysis unit staff. Collaborations with Professional Practice led to the revision of Island Health LPN limits and conditions for hemodialysis settings. The project also encompassed updates to hemodialysis standard operating procedures to align with a team-nursing service delivery model. Orientation materials for HD LPNs were developed, and a plan for spreading and integrating the team-nursing model in community dialysis units was put in place.

While the project faced challenges, such as initial concerns among some RNs regarding LPN rotations and delays in updating and approving LPN Limits & Conditions, it is expected to yield several benefits. These include increased opportunities to fill vacant positions, addressing staffing shortages, providing career advancement for LPNs, and ensuring a sustainable nursing workforce for the future. Additionally, the initiative aimed to create consistency in care delivery across HD units, preparing for the introduction of initiatives such as the HEST (emergency response) nurse team. Future goals involve establishing guidelines for LPN-to-RN ratios in units and continuing to recruit LPNs into the program, with plans to integrate LPNs into community dialysis unit teams.

Remote Care Coordination in North Island KCC and CDUs – Island Health (Central Island)
During the past fiscal year, Island Health successfully completed the discovery phase of this project, which is envisioned as a multi-year initiative with phases formulated as annual sub-projects. This comprehensive phase encompassed several key components:

1. Current state analysis: A thorough examination of existing conditions was conducted, identifying critical issues affecting the planning and delivery of coordinated care in remote facilities. This review employed Participatory Action Research (PAR) methods, including process mapping, individual interviews, online and group brainstorming sessions, and data analysis. The analysis revealed challenges in processes and workflows, team communication, professional development and education opportunities, infrastructure, leadership structure, and barriers associated with the nephrology care delivery model for remote sites.
2. External scan: An external scan explored existing care models in remote and satellite kidney care clinics and community dialysis units within other HARPs, providing valuable insights to inform potential solutions for operational leaders to explore.
3. Co-design: A collaborative co-design process involving direct care staff, first-level leaders, and nephrologists resulted in a draft of a future state model with recommendations for local and system-level improvements. This model was presented to the Renal Services Leadership Team for further action in the following fiscal year.

Findings and recommendations from the discovery phase will be prioritized for implementation in the next phase of the initiative, which may include improvement initiatives across various streams. Options include the leadership structure, team communication, scheduling workflows, education, and team/relationship building. This holistic approach is designed to enhance the coordination and quality of care in remote kidney care facilities, ultimately improving patient outcomes.

Renal Quality Management System: Phase 3 – Island Health
Over the past couple of years, the Island Health renal program has pursued a comprehensive initiative to design, develop and implement a systematic approach to quality management activities. Building upon the foundation laid in the previous years, the program made several advances:

1. Establishment of quality committees: Six new multidisciplinary quality committees were established within the renal quality structures, covering various areas such as the kidney care clinic, transplant, home hemodialysis, peritoneal dialysis, vascular access, and PROMIS data quality.
2. Standardized approach: Tools and processes were developed and implemented to support a standardized approach for planning and overseeing committee priorities and objectives, ensuring consistency and alignment across the quality management system.
3. Information management enhancement: A needs assessment was conducted to inform the design and implementation of an improved information management infrastructure. The aim was to enhance transparency, accessibility, and consistency in documentation standards.

The project faced typical challenges, including the demands of daily operations and limited managerial capacity impacting engagement and extending timelines.

Moving forward, the quality committees are set to meet at least quarterly and will report to the Renal Quality Council. Accountability for priority projects and strategic initiatives will be delegated through the committee structures. Each quality committee will also develop and monitor a quality indicator scorecard in alignment with provincial priority indicators and local HARP improvement goals.

To ensure ongoing connection and alignment with provincial initiatives, local quality committee chairs will have representation on the corresponding BC Renal committees. The team also plans to develop a guide and education materials for chairs and members to build capacity, support consistency and sustainability, and effectively onboard new members.

Optimizing South Island KCC Utilization for Qualifying Patients – Island Health (South Island)
During the past fiscal year, the renal program in South Island identified essential steps to improve utilization of kidney care clinics (KCC). Key achievements and components of this project included:

1. Data collection: Over a one-year period, the project team collected data on the number of patients registered in the South Island KCC. They reviewed patients' GFR (glomerular filtration rate) levels and calculated the required clinic visits based on the provincial KCC Committee best practice guidelines.
2. Clinical challenges assessment: Data and responses were gathered from the Victoria KCC team regarding the clinical challenges of the existing KCC model, where patients are seen both in the KCC and in nephrologist offices with varying frequencies.
3. Nephrologist input: Focus group meetings and survey tools obtained input from individual nephrologists in South Island regarding their perspectives and reasons for choosing to see patients in their offices rather than in the KCC.

The project team identified inefficiencies and barriers in

the current clinic structure and processes, including workflow inefficiencies, use of multiple databases, long patient appointment times, KCC clerical support to nephrologist, travel and parking issues, limited clinic availability, and re-work related to patient referrals.

Tools and knowledge gained from the Quality Academy curriculum significantly guided the project team throughout the process.

For the future state of Victoria KCC operations, three main goals have been identified:

1. Patients with a GFR <15 will be seen exclusively in the KCC at a frequency determined by the nephrologist.
2. Vascular access clinic referrals will come through the KCC instead of the nephrologist's office.
3. All patients starting dialysis will do so from the KCC rather than directly from the nephrologist's office.

These goals align with provincial KCC Committee best practice standards and aim to standardize care delivery across Island Health, ensuring appropriate clinic visit frequency and care transitions.

To enable the transition to the future state, several initiatives are underway, including streamlining documentation, requesting additional pharmacy resources, enhancing the clinic experience for patients establishing a new patient exam/interview room, providing full-service support to patients for scheduling, labs and appointments, revising the frequency of clinic days available to nephrologists, and addressing parking challenges at the Royal Jubilee Hospital. These initiatives collectively aim to enhance the efficiency and effectiveness of KCC services in South Island.

Summit CDF Evaluation: Four-Week Extension – Island Health (South Island)

In 2020, the Island Health renal program established a 4-bed hemodialysis unit within The Summit long-term care (LTC) facility in Victoria, the first of its kind on Vancouver Island, providing dialysis care for LTC residents who meet the acuity criteria for an in-centre unit.

The following year, the renal program conducted an evaluation of the impact the new Summit CDU had on patients, care teams, care planning and delivery processes, as well as the operational budget. Overall, the evaluation found that patients, staff and nephrologists reported a positive impact on patient quality of life as a result of receiving dialysis in their LTC facility. Survey respondents, including patients, HD staff, nephrologists, and LTC staff, felt that replication of this model could be considered for other LTC facilities. The evaluation also showed that staffing costs for the unit were on par with other CDUs across the island.

During the last fiscal year, the renal program completed an extended evaluation and disseminated findings to the Island Health project steering committee.

The findings of the evaluation remain consistent with what was reported in the 2021-2022 review of the Summit community dialysis facility. The evaluation data and analysis generated through this project will serve as valuable input for future decision-making regarding the potential replication of the Summit CDF care model in other Island Health facilities. The Summit CDU also offers an opportunity to develop an optimal funding model for unique units like this one elsewhere in the province. Furthermore, the knowledge and insights gained from this evaluation can be shared both formally and informally within the renal network, contributing to the collective understanding and improvement of dialysis care models in the healthcare sector.

> The Vascular Access Champions project achieved significant progress, with four champions recruited in South Island, while Central/North Island successfully onboarded nine champions.

Vascular Access Champions – Island Health

The Island Health renal program identified a need to enhance its vascular access teams by adding vascular access champions in several units. The project achieved significant progress, with four champions recruited in South Island, while Central/North Island successfully onboarded nine champions.

These dedicated champions, who represent various community and in-centre dialysis units across the region, have undergone extensive training and development under the guidance of the vascular access coordinator, enhancing their skills and knowledge in various aspects of VA care. They have effectively used this knowledge to coach, inform, and support their peers, particularly novice hemodialysis-trained nurses within the units.

The focus of their efforts has included:

1. Utilizing ultrasound devices to adhere to best practice standards for needling.
2. Employing ultrasound devices to conduct assessments for post-surgical fistulae maturation.
3. Utilizing the VA module in PROMIS.
4. Implementing best practices when using Transonic devices for flow measurements.

Despite the challenges of aligning schedules and availability due to staff busyness during shifts, the VA champions have made significant contributions to spreading knowledge and skills to all hemodialysis staff. This dissemination of resources related to VA knowledge and skills is expected to enhance the quality of VA care provided to hemodialysis patients.

Going forward, the project aims to align the delivery of VA care quality in Island Health with BC Renal's best practice standards by:

1. Establishing a monthly schedule for the existing VA champions to dedicate their efforts to this work, whether by redeploying from their baseline shifts or by picking up additional shifts.
2. Developing a comprehensive "tool" that guides all hemodialysis RNs through the incremental theoretical and practical steps required to transition from novice to intermediate to expert renal nurses. This tool will support the ongoing development and excellence of renal nursing care within Island Health.

> The project evaluated opportunities to streamline and standardize pre-transplant care workflows, engage staff in education on transplantation and processes, and increase dedicated resources.

Pre-Transplant Care Pathway – Island Health (Central Island)

A project in Central Island evaluated opportunities to streamline and standardize pre-transplant care workflows, engage staff in education on transplantation and processes, and increase dedicated resources within Island Health to support pre-transplant initiatives.

While implementing BC Renal's Transplant First guidelines, the program undertook a process analysis primarily focused on the Nanaimo Regional General Hospital (NRGH) home dialysis clinic. The analysis brought to light several key findings:

1. Significant variation in staff knowledge and navigation through the pre-transplant process.
2. No clear pathway for clinicians to follow, and no standardized way to receive information from St. Paul's Hospital or Vancouver General Hospital transplant clinics.
3. Pre-dialysis clinic staff were under-resourced, making it difficult to effectively update other renal clinics.

The team submitted a report to Island Health renal program leadership, with a recommendation to introduce a new pre-transplant coordinator who would support various aspects of pre-transplant care, including:

1. enhanced home team pre-transplant education;
2. standardized pre-transplant workflows;
3. optimized pre-transplant care data communications and tools;
4. enhanced skills and knowledge of HD social workers to support patients to find living donors;
5. improved access to transplantation for Indigenous patients; and
6. implementation of provincial Transplant First workflows where applicable to hemodialysis patient units.

The goal is to ensure Island Health follows workflows align with provincial best practice standards in pre-transplant care and the Transplant First initiative where

applicable. The program will share its findings with other health authority renal programs through established provincial working groups and committees.

Patient Journey Docustory – Northern Health
With the support of RRP funds, the Northern Health (NH) renal program undertook a year-long project of filming one patient's journey as he transitioned to home hemodialysis. Given the large geographic area of Northern Health, home therapies are an optimal choice for many kidney patients, enabling them to remain in their home communities, reducing travel for treatment, and supporting self-management in patient care.

The docustory will be used to promote home therapies to kidney patients who are considering and are appropriate for home hemodialysis or peritoneal dialysis. The renal program plans to share the video through Northern Health's communications channels and with BC Renal and the provincial renal network.

Intradialytic Exercise Program: Phase 2 – Providence Health Care
Several years ago, after observing the success of similar initiatives in other renal programs, Providence Health Care's (PHC) renal program purchased exercise bikes for HD patients to use during dialysis treatments. In Phase 2, the program hired a rehabilitation assistant to manage the exercise initiative, resulting in enhanced patient satisfaction and outcomes (increased engagement, mobility, improved stress management and better overall dialysis experience). Despite some hiring delays, the program successfully followed the proposed workflow, including assessments of patients by physiotherapists, and collected valuable data to inform next steps.

Due to limited availability of

rehab assistants, PHC is exploring alternative ways to provide the service. Given the benefits to patient experience, physical health and overall well being, the goal is to expand the program's reach to more patients.

What Matters Conversation Project: Goals of Care in the Kidney Care Clinic – Vancouver Coastal Health
This project, which aimed to enhance quality of care and communication within the kidney care clinic (KCC) and between the KCC and community care organizations, increased staff and physician awareness of the importance of goals of care (GOC) conversations and bolstered confidence in having these discussions.

Through creation of a sustainable GOC education model, project outcomes included: improved workflows and documentation, better integration of GOC conversations into operations, increased patient understanding of their illnesses, self-management strategies and kidney replacement therapy (KRT) options, and higher satisfaction with care experience and a perception of more individualized care.

Project learnings included the need for effective GOC documentation transfer, particularly for patients transitioning from KCC to community care and those who can no longer travel to KCC appointments. Several new algorithms were developed to facilitate earlier and more frequent referrals and sharing of documentation between patients and community care facilities.

The project also laid the groundwork for potential partnership with the BC Centre for Palliative Care to facilitate seamless care transitions in the community. Moreover, the project demonstrated the potential for integrating the advance care planning (ACP) module in PROMIS in other renal programs and units, fostering standardized referral processes and decision support for improved patient care.

Overall, the project not only improved end-of-life care quality through education, support, and coaching/role modeling, it also provided valuable insights and tools that can be replicated in similar healthcare settings.

Enhanced Staff and Patient Education

Providing kidney care staff with ongoing access to training and education is a significant contributor to job satisfaction, quality of work-life, and helps ensure the highest standards in patient care. Value-added funds continue to help team members engage in ongoing professional development, discuss emerging trends and stay current on evidence-based kidney care practices and standards.

In 2022-2023, health authority renal program staff participated in a variety of local, provincial, national and international conferences, workshops and events relevant to chronic kidney disease and therapies. Funds were also used to support staff taking advanced education courses relevant to their role and in support of kidney care services, as well as certifications such as the CNeph(C) examination. Value-added funds also enabled BC Renal and the health authority renal programs to produce and distribute a variety of patient safety and education materials (such as online videos and handouts).

Some of the conferences, workshops and professional events attended by BC renal community members with support from RRP funds included the following:

- American Nephrology Nurses Association (ANNA)
- BC Kidney Days
- Canadian Association of Social Workers (CANSW)
- Canadian Association of Nephrology Nurses & Technicians (CANNT)
- National Kidney Foundation Annual Scientific Meeting
- Northwest Dietitians Conference
- Annual Dialysis Conference
- International Transplant Nurses Society
- NATCO (transplant conference)
- World Congress of Nephrology
- San'yas Training Program

Both the health authority renal programs and BC Renal are committed to using value-added funds to support quality improvement in program and optimal patient care. To ensure continuity and consistency in the use of the funds, guidelines stipulate they cannot be used for ongoing operational expenses or for costs historically covered by health authority budgets.

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