While a portion of these funds is used at the provincial level to support PD initiatives of the BC renal network, the majority is allocated to health authority PD programs to meet diverse needs at the local level. Collectively the objective is to optimize the prevalence of PD throughout BC, and to ensure quality PD patient care and enhanced staff knowledge and expertise.

**Enhancing PD Care Across BC**

The BC Renal Agency is dedicated to ensuring all end-stage renal patients are considered for home therapies. In 2017/18, value-added funds were used to support initiatives aimed at increasing PD uptake across health authority programs, as well as to ensure high quality care.

**PD Assist Provincial Program**

The rollout of the PD Assist program to all health authority renal programs in BC was completed in 2018. PD Assist, which includes both respite and long-term assistance options, supports frail peritoneal dialysis patients who need help to maintain their PD care. The program has seen steady growth since its launch and had over 60 patients as of spring 2018.

PD Assist was recognized by the BC Patient Safety and Quality Council with the 2017 Excellence in Quality – Living with Illness Award, and has been published in Peritoneal Dialysis International and the European Journal for Person Centred Healthcare. Benefits of the provincial PDA program include:

- allowing frail PD patients to continue dialysis at home vs transferring to higher cost facility-based hemodialysis;
- similar or lower rates of peritonitis in this high risk population (a costly and sometimes devastating complication of PD);
- respite care for acute situations (vs hospitalization or transfer to hemodialysis);
- support for patients nearing end of life to allow planning to take place at home, as opposed to in hospital or after a costly and disruptive transfer to hemodialysis; and
- patient-centred delivery of care.

The program represents an innovative and efficient way to use existing resources to provide enhanced patient care.

**Standardized PD Guidelines, Procedures and Patient Materials**

PD value-added funds support the ongoing development of provincial PD nursing guidelines and the corresponding provincial implementation of standardized procedures and tools. In 2017/18 this included a Best Practices Guideline for PD programs, development of PD travel information and letters for patients, a functional assessment tool to determine if patients are ready to perform and manage their PD care, as well as procedures for irrigation, catheter flow, catheter heparinization and capping, surgical masks and warming PD solutions.

In addition, PD value-added funds supported work to update and revise PD patient training e-modules and videos available through the BCPRA website. Guidelines, procedures and various patient and provider tools can be found on the BC Renal Agency’s website (www.bcrenalagency.ca) in the PD sections under ‘Health Professionals’ and ‘Health Info’.

**Patient Attendance at ISPD**

PD value-added funds were used to support the participation of several patients at the International Society of Peritoneal Dialysis congress that took place in Vancouver in May 2018. This was a rare opportunity for BC PD patients to attend and see the inner workings of one of the world’s most important conferences on peritoneal dialysis that brings together leading clinicians in the field from around the world.

**Provincial Committee Participation**

Sharing outcomes with provincial renal partners through the BC Renal Agency’s network of committees can guide and consolidate practice. It
also provides opportunities for engagement and networking, as well as incentives for quality improvement initiatives, and a chance to discuss current and emerging practices. Access to PD value added funds for these opportunities has been invaluable for sustainable staff training and education.

**Value-Added Funds Supporting Regional PD Initiatives**

At the health authority level, projects and activities supported by value-added funding in 2017/18 included the following:

**Staff Education and Training**
Access to ongoing staff education and knowledge exchange is a significant contributor to job satisfaction and quality of work-life, as well as the ongoing delivery of best practice PD care. By participating in education programs, team-building activities, attending conferences, workshops and provincial meetings, as well as having access to journal subscriptions, PD professionals learn about emerging practices and innovative initiatives, and are able to share this information with their renal programs.

Last year, value-added funds were used to sponsor the participation of 21 PD nurses in the BCIT advanced online PD education course. Funds were also used to sponsor health authority staff participation in the following conferences, workshops and events, among others:
- International Society of Peritoneal Dialysis
- BC Kidney Days
- Canadian Society of Nephrology (CSN)
- Canadian Association of Nephrology Nurses & Technologists (CANNT)
- Canadian Association of Nephrology Social Workers (CANSW)
- National Kidney Foundation Annual Scientific Meeting
- Northwest Dietitians Conference
- American Nurses Nephrology Association Conference
- Annual Dialysis Conference
- World Congress of Nephrology
- BC Renal Agency PD committee meetings
- BC Renal Agency PD nurses group meetings

**Patient Education and Training**
Ensuring quality in all aspects of patient education helps encourage patient self-management, improves quality of life and supports positive health outcomes. A portion of PD value-added funds is consistently dedicated by health authority renal programs to advancing education and training in peritoneal dialysis for eligible patients.

**Rehab Nurse Training in PD**
One health authority used PD value-added funds to train rehabilitation unit nurses to provide peritoneal dialysis to PD patients that require rehabilitation. As a result, patients can now be transferred faster to the rehabilitation unit post-amputation or stroke to continue their recovery. This will help to decrease patients’ length of stay in the acute care setting and potentially allow patients to return back to their homes earlier due to more focused rehabilitation services.

**Skills Fair**
PD value-added dollars were used to develop and implement a skills fair for medical and surgical nurses in two semi-rural communities with a focus on providing care to PD, HD and transplant patients. Through a collaborative approach with the Quality Office, the health authority renal program achieved a broad knowledge translation outcome. Overall, the renal program reported improved knowledge and care delivery by acute care staff for renal patients through the utilization of a handover tool and awareness of the importance of medications and timely lab work. The renal program plans to repeat the skills fair in six months.

**Support for Home Modalities**
Rural and remote communities in BC often face challenges in coordinating home therapies. A health authority opted to use PD value-added funds to build capacity for remote training of patients who would be otherwise excluded from the opportunity. The first three patients were trained on home modalities in their remote communities, without the need to travel to a bigger centre. The patients reported that being able to train within their own community (or close) was appealing and welcomed.
The renal program plans to determine the need for remote training on a case-by-case basis, and believes that this possibility may improve patient recruitment and retention for home modalities.

**Transition/Navigator Nurse Pilot**
A mix of PD and RRP value-added dollars supported the introduction of a transition/navigator nurse role in one of the health authorities to support patients through CKD and orient them to the different dialysis modalities, including peritoneal dialysis. This approach helped ensure all eligible patients could be steered towards home modalities. The pilot demonstrated the need for an ongoing transition/navigator role in the program, and the HARP plans to extend the project for another year, with a few other programs interested in a similar approach.

Both the health authority renal programs and the BC Renal Agency are committed to using value-added funds to optimize 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.
Although a portion of these funds is used to support cross-provincial initiatives of the BC renal network, the majority is allocated to health authority renal programs to meet diverse needs at the local level.

At the provincial level, funds were used for a number of projects aimed at improving delivery of care and supporting future program development and sustainability.

**Patient Education Tools**
Value-added dollars continue to support the development and enhancement of a range of patient education materials that promote patient self-management and improved health outcomes. In 2017/18, these included patient handouts and tools on a range of topics, including dialysis and travel, home dialysis, diet and nutrition, self-cannulation and symptom assessment and management.

**Patient Experience Survey**
Value-added dollars from industry previously supported a patient experience survey of all registered kidney patients (13,000+) in the province. Results of the survey have since been analyzed, with provincial and modality-specific reports completed, published on the agency’s website and disseminated within the renal community. For a high-level overview, refer to the survey infographic on the BCPRA website. Next steps include completion of health authority-specific reports and working with patients and care teams to identify opportunities for improvement. Initiatives such as the patient experience survey and other patient engagement strategies help inform strategic decision-making and long-term kidney care planning, evaluation of the overall system’s performance and underpin research efforts.

**Transplant First Initiative**
Transplant First is a joint initiative between the BC Renal Agency’s Kidney Care Committee and BC Transplant to promote pre-emptive transplants for patients considering renal replacement therapies. Pre-emptive transplants are those that occur before the person requires dialysis therapy to start. The focus of the initiative, launched in October 2017, is to promote living donation, which involves patients recruiting volunteer kidney donors. A provincial coordinator was hired to support the kidney care clinics and a range of patient and provider support materials were developed. Print and video resources can be accessed on the BC Transplant and BC Renal Agency websites (go to www.bcrenalagency.ca, click on Health Info or Health Professionals and then select Transplant).

**Agency Website**
Value-added dollars continue to support ongoing development of the BC Renal Agency’s website, to ensure intuitive navigation and enhanced search functionality. New information and tools for patients and care teams are added to the website on a regular basis, as well as our YouTube channel. In fact, our most popular documents have been viewed between 30,000-50,000 times over the past two years.

**PROMIS Enhancement**
PROMIS is an integrated, provincial information system for renal and transplant care provided to over 22,500 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. The PROMIS team, working with a clinical design working group of 50+ stakeholders from all health authority renal programs, continues to work on a comprehensive rebuild.
of the PROMIS application to ensure it continues to meet the expectations and support the mandates of the renal and transplant communities.

Support for Provincial Committee Initiatives
Value-added funds support the ongoing work of a range of BC Renal Agency provincial committees (Kidney Care, Hemodialysis, Home Hemodialysis, Peritoneal Dialysis, Palliative, Pharmacy, 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 agency website at bcrenalagency.ca in the ‘Health Info’ and ‘Health Professionals’ sections.

Kidney Smart Campaign and World Kidney Day
Kidney Smart is an annual BC Renal Agency campaign designed to increase public awareness about kidney disease, highlight the importance of following a kidney smart lifestyle and direct people to self-screen using our online kidney assessment tool. The campaign takes place in March, aligned with national Kidney Month and international World Kidney Day (WKD) – a joint initiative of the International Society of Nephrology (ISN) and the International Federation of Kidney Foundations (IFKF).

Key elements of our 2018 Kidney Smart campaign included an integrated social media strategy featuring a #KidneyHealthChallenge and a Facebook Live event on World Kidney Day, as well as an advertising campaign through the Vancouver Sun online, Facebook, the WeChat app, bus and SkyTrain ads and a range of ethnic media (online and print) to reach high risk groups. We continued to expand our reach by joining forces with a number of social media accounts to cross-promote our graphics, messaging and #KidneyHealthChallenge. Our partners included the Kidney Foundation of Canada, PHSA, BC Transplant, PKD Foundation of Canada, BC Patient Safety Quality Council, Fraser Health and CAN-SOLVE CKD. Results include almost 8,400 visits to kidneysmart.com (a 36% increase from 2017) and over 4,800 online assessments completed (a 25% increase). Kidneysmart.com continues to be the highest visited page on our website during March.

Emergency Preparedness
The BC Renal Agency and health authority renal programs jointly developed a Provincial Renal Emergency Management and Business Continuity Plan. This plan is designed to address all types of hazards – natural, man-made, or health emergency – that might be experienced by the agency and health authority renal programs across the province. Each May – Emergency Preparedness Month – the BC Renal Agency helps raise awareness about emergency preparedness among kidney care teams and patients. This past year, the agency promoted emergency preparedness to renal teams and patients across BC throughout May, using weekly quizzes, social media posts and promotion of tools, including a poster and wallet card. With the increased frequency of BC wildfires in recent years, and the potential for other climate-related events, the Renal Emergency Management plan is more critical than ever.

Nephrology Fellows
A key component of the BC Renal Agency 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, home therapies, palliative care), administrative and research fellowships. Funding is also provided for short-term administrative course work. More information is available on the agency website – go to bcrenalagency.ca and click on Careers.

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 2017/18 included the following:

- **Nocturnal hemodialysis program assessment.** In-centre nocturnal hemodialysis (NHD) remains a relatively new dialysis modality for the BC kidney patient population, with five major hospitals in the province currently offering this treatment option to eligible patients. Two health authorities used value-added funds to assess various aspects of their NHD programs. In the first case, 83% of NHD patients expressed overall satisfaction and improved quality of life with nocturnal hemodialysis, while 100% of surveyed patients indicated what they were told about NHD and its benefits was consistent. In the second case, the renal program observed improved quality of life among NHD patients, and attempted to better understand what patient variables predict long-term success on NHD and who might derive the most benefit from this modality. While the program could not replicate the previous finding that medication costs or burden was reduced beyond phosphate binder use, the learnings will help to better define the list of criteria for NHD patient eligibility.

- **Speed of Trust workshop.** This workshop provided staff of one renal program (including nurses, managers, nephrologists, allied health, etc.) with the skills to build personal confidence and foster a positive work environment. Speed of Trust principles (Integrity, Intent, Capability and Results) will be used as a foundation...
towards building and improving working relationships. Future recommendations include the development of Speed of Trust accountability teams to provide support and ongoing skills development, and applying learned skills into daily work to cultivate an engaged workforce and a healthy workplace.

- **Violence prevention education in hemodialysis.** Renal care providers come in contact with a variety of challenging personalities and situations on a daily basis. One renal program used value-added funds to organize an online violence prevention workshop for staff. Staff found value in the workshop, but indicated that face-to-face interaction would be preferred for future events. The workshop supported safety in the work environment and the staff’s ability to deliver patient-centered care to clients.

- **Patient health plan – phase II implementation.** The year before, one of the health authorities collaborated with the BC Renal Agency to design a simple-language patient health plan (PHP) template for patients receiving kidney care. The tool helps patients set and achieve their personal care goals in a user-friendly way, with support from their care team. Following the rollout of the template across the health authority’s kidney care clinics, patient requests for advance care planning increased, perhaps due to increased staff awareness about the importance of having this discussion with patients. Patients have also expressed appreciation for conversations with their health care providers that go beyond physical assessments. Work continues with the care teams and patients to improve the PHP tool and make it more efficient and faster to complete within the clinic setting. In addition, brief action planning communication tools for staff are currently being developed with the Centre for Collaboration, Motivation and Innovation Discussion.

- **Ambulatory blood pressure monitoring program.** Value-add funds continue to support an ambulatory blood pressure monitoring (ABPM) program for children across the province. ABPM has been shown to be the superior analysis tool for blood pressure patterns in children with chronic kidney disease and dialysis. This program identified patterns that could not be found with clinic blood pressure measurements, such as nocturnal hypertension, masked hypertension, and nocturnal non-dipping.

- **Transition/navigator nurse pilot.** Value-added dollars supported the introduction of a transition/navigator nurse role in one of the health authorities to support patients through CKD and orient them to the different dialysis modalities, including helping “parachute” patients (those who have to start dialysis abruptly). This approach helped ensure all eligible patients received information about the benefits of home modalities and the transplant process. Having demonstrated the need for an ongoing transition/navigator role, the program plans to extend the project for another year, with a few other programs interested in a similar role.

- **Staff training for research.** Research is critical for improving quality of care for kidney patients. In order to sustain an active, research-engaged renal program, staff development is key. One health authority used value-added dollars to train three registered nurses to assist nephrologists with research activities. The nurses will be resources for the health authority’s interested sites and programs.

- **Supportive care clinic – phase I.** One health authority used value-added funds to establish a supportive care clinic for kidney patients facing their end of life. This innovative service delivery model, which includes enhanced relationships with external care providers, supports a more coordinated system of care for patients.

- **Vanessa’s Law.** Under the “Protecting Canadians from Unsafe Drugs Act” (Vanessa’s Law), reporting of serious adverse drug reactions is mandatory in healthcare institutions. One health authority renal program worked to set up a pharmacovigilance system to comply with this law and to detect rare clinical adverse events not identified in clinical trials. Implementing this system can generate a retrievable database of serious adverse drug reaction events in CKD patients, the data from which can potentially be used to prevent future serious adverse drug reactions, and to substantiate a recall of a drug product or a revision of drug labeling to warn of previously unknown risks.

- **Ultrasound-guided needling/cannulation.** One program used value-added funds to provide in-house training to hemodialysis nurses in the theory of ultrasound-guided cannulation, combined with hands-on practice with simulators and on-the-job practice. Acquiring competency in ultrasound use allows the nurse to function independently to assess and cannulate a varied complexity of accesses, as well as troubleshoot cannulation complications and mentor others. Going forward, trained ultrasound “super users” will help improve the daily experiences of patients and nurses, facilitate enhancement of cannulation skills of all nurses, and improve overall cannulation success.

- **Transplant dermatology clinic.** One renal program piloted a transplant dermatology clinic to provide much-needed skin assessments and cryotherapy referrals. Preliminary results confirmed the need for a permanent transplant dermatology clinic at the site, and a decision was made to have approximately 8-9 clinics per year for local transplant patients on an ongoing basis.

- **Online priming training.** Value-added dollars supported the training of staff at two community dialysis units in the use of a dialysis machine online substitute priming system. Online priming helps to cut costs of HD treatments and also allows for “greener” treatments, due to reduced waste. The team also used the comprehensive training to improve the workflows for technicians and enhance disinfection/infection-control documentation for all HD runs. These units are the first in the province to use online priming on all patients, paves the way for future implementation of hemodialfiltration (HDF) at the health authority’s other sites.

- **Foot care implementation – phase II.** Following a successful start of routine foot assessments and care for hemodialysis patients at one site the year before, a health authority worked to expand the project to other sites. As a result, one additional site will provide
both foot screenings and care utilizing internal resources, while other facilities will do assessments and refer patients who need additional foot care to internal and external specialists.

- **GN clinic initiative – phase I.** With the support of value-added funds, one health authority started a GN clinic at one of its sites and developed a variety of educational tools for both CKD clinic staff and GN patients. The GN clinic can inform other renal programs interested in pursuing formalized GN teaching for this high-risk population.

- **Patient registration consolidation.** Value-added dollars supported a project at one health authority to consolidate the registration processes for kidney patients. The health authority reviewed the registration process in all clinics and dialysis facilities, and will develop a staff framework for better registration practices and data support in PROMIS and the health authority’s electronic medical record system.

- **LEAN initiatives.** A health authority dedicated part of their allocated value-added funds to support LEAN projects at two sites. In one case, the renal program conducted a LEAN event within the in-centre dialysis unit. The program worked to identify areas of clinical waste, reduce or eliminate waste, and create improved workflow efficiencies. In the other case, the focus was on reviewing supplies, staff workflows, space use and clinical waste of supplies. Outcomes included workflow improvements and better use of space in the renal unit.

- **Patient partnership project.** One health authority dedicated value-added dollars to developing and implementing a series of tools to improve quality of care and patient satisfaction. The tools included patient experience cards, the results of which are themed and reported out every two months; a new patient care plan, which includes a strong patient goals and preferences component; and quality, safety and patient experience boards showcasing how the renal program is doing overall and presenting several individual quality indicators of interest to staff, patients and their families.

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**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 to engage in ongoing professional development, discuss emerging trends and stay current on the latest evidence-based renal care practices and standards.

Using value-added funds, health authority renal programs are able to support a range of staff training, learning and development activities across disciplines, including attendance at conferences, workshops and provincial meetings:

- 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
- BCPRA provincial committee meetings

Value-added funds also enabled the agency and programs to produce and distribute a variety of patient safety and education materials (such as DVDs, online videos and pamphlets).

*Both the health authority renal programs and the BC Renal Agency are committed to using value-added funds to optimize 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.*