

# Rouge Valley Health System and The Scarborough Hospital Facilitated Integration Process

## Due Diligence Workbook: NEPHROLOGY (DRAFT)

A Facilitated Process of the Central East LHIN

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# 1. Current State Assessment & Leading Practice Review

## 1.1. Overview of Services/Programs

<p><b>Location of Service/Program</b>  <i>Where are the services/ programs delivered? At both hospitals? At specific sites?</i></p>	<p>The Scarborough Hospital (TSH) is home to the largest Regional Nephrology Program in North America with over 6,000 patients receiving care. It is one of 26 Regional Chronic Kidney Disease (CKD) programs in Ontario and the largest of three CKD programs in the Central East LHIN. The Regional Nephrology Program provides a full continuum of Nephrology (kidney) care.</p> <p>Services of The Scarborough Regional Program include: Continuous Renal Replacement Therapy (CRRT) at the Critical Care Units (CCU) at the General Campus only and supports CRRT as a Regional Program at Centenary Hospital's CCU as well. Chronic Kidney Disease (CKD) Clinics (CKD, Vascular, General Nephrology, Independent Health Facility (IHF) follow up clinic, Home Dialysis) are provided at the General Campus. These clinics receive referrals from our 9 Nephrologists and those Nephrologists in our partnered hospitals who have privileges at TSH. Home Dialysis Services (Peritoneal and Hemodialysis) are provided which include surgical creation of dialysis body access at the General Site, Training and Education of patient and family members, and follow up care in clinics or through home visits.</p> <p>TSH also supports Home Peritoneal Dialysis (PD) at Bridgepoint Hospital. (Bridgepoint staff provided PD treatments for patients who reside at the hospital). Equipment repair, service, and maintenance are provided by contracted specialists through TSH's Vendor Partner.</p> <p>In Centre Hemodialysis is provided at the General Site and four hemodialysis satellites that include:</p> <ul style="list-style-type: none"> <li>○ Corporate Drive Satellite</li> <li>○ Yee Hong Satellite,</li> <li>○ Bridgepoint Hospital, and</li> <li>○ Toronto East General Hospital (TEGH). TEGH is a stand-alone, independent satellite.</li> </ul> <p>The satellites and the In Centre HD unit currently operate three shifts per day, six days per week (0700 to 2300 hrs.). There are 53 stations (including isolation capacity) operating at the In Centre HD unit at the General Campus, 18 stations at the Corporate Drive satellite, 13 stations at Yee Hong, 6 stations at Bridgepoint Health for Complex Continuing Care residents requiring hemodialysis, and another 18 stations at Toronto East General Hospital (An independent HD satellite).</p> <p>The program has linkages with a tertiary hospital (St. Michael's Hospital) for transplantation and linkages with community services that support care and management of our population i.e. CCAC.</p>
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	<p>The program also has a four-bed transition unit that provides respite care, teaching and independent dialysis capabilities.</p> <p>CRRT is provided for acutely ill patients and operates in the CCU at TSH's General Division and RVHS's Centenary site. There are two machines that run regularly at Centenary.</p> <p>A detailed description of the Ontario Renal Network (ORN), the body that directs CKD services in Ontario, is available on the ORN website. <a href="http://www.renalnetwork.on.ca">http://www.renalnetwork.on.ca</a>. A detailed description of all CKD services can be found here. TSH's regional program, as with all Regional CKD Programs, report key performance information to the ORN regularly.</p> <p>Rouge Valley Health system partners with The Scarborough Hospital to provide high quality nephrology care. Approximately 150 days of acute dialysis (CRRT) at the Centenary site's intensive care unit were provided last year. Currently the Ajax site does not provide dialysis therapies.</p> <p>All acute and chronic dialysis patients provided care at Centenary are transferred to TSH when chronic dialysis services are needed.</p> <p>There are 9 nephrologists (kidney specialist physicians) at TSH and 2 nephrologists at RVHS who provide kidney care for residents of Scarborough.</p> <p>At RVHS in 2012/13, 1,200-1,500 patients in various stages of CKD were seen by the two RVHS nephrologists, both in the office and in the hospital setting. Consultation, education and follow-up care is also provided. When a patient's kidney condition becomes more acute (late stage 4 and 5), or when patients with anemia require a drug called EPREX, patients are referred to the Regional Nephrology Program at TSH..</p>
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**Volume of Activity**

What is the current volume of activity? (e.g. service levels, patient volume) Are there important trends? (e.g. growth, decline)

**Summary of The Scarborough Regional Nephrology Program & Activity Volume 2012/13****Chronic Kidney Disease (CKD) Clinics:**

- Pre-dialysis- 7,082
- Nephrology- 629
- Dialysis Vascular Access Clinic- 778

**Transition Unit:** 4 stations for patient education, respite, and independent home dialysis

**Summary of Independent (Home) Peritoneal Service Volumes**

**Total number of Home Peritoneal patients- 207**

**Total number of Home Hemodialysis patients- 22**

- Home HD Daily/nocturnal patient volume - 5
- Home HD conventional patient volume- 11

**The Ontario Renal Network (MoHLTC) mandate is to increase the uptake of end-stage renal failure patients, choosing independent (home) dialysis.** TSH's goal is to increase home dialysis by 3% annually. Attrition has been related to length of time on PD (membranes are failing), kidney transplant, and the natural aging process resulting in death.

We are seeing a decline in our PD population (average-1% over 6 years). Our PD population is aging, making it more challenging to manage their PD at home. Our loss rate is higher than our maintenance and new start rate.

**CRRT (ICU)/SLEDD Treatment Days (TSH): 1,144**

**CRRT ICU (Centenary) – 2012/13- 150 days**

**Chronic Hemodialysis -Level 2: 72,466**

**Inpatient Nephrology** :Nephrology care, in hospital PD, in centre hemodialysis with 18 beds & located in other areas of hospital if overcapacity on Nephrology floor.

- In hospital peritoneal exchanges - 8,839

**Proportion of Prevalent Dialysis patients by treatment type at TSH- Q1 FY 11/12 to Q4 FY 12/13:**

Facility based hemodialysis-74.5%

Peritoneal dialysis-23.7%

Home hemodialysis-1.8%

Incident Dialysis Patients (FY 2012/13)-second largest in Ontario- 199

**Service Volumes- Dialysis- (H-SAA Service Volumes Document)**

<b>Day/Night Renal Volumes</b>	<b>Total</b>
Bridgepoint Hemo	4975
Hemodialysis	47480
Home Hemo Dialysis	200
Home Peritoneal Dialysis	1902
Home Peritoneal Teach	687
Satellite Hemodialysis	16450
Yee Hong Dialysis	11972
<b>Total</b>	<b>83,666</b>

**Total Patient Volumes (2012/13):**

Total Dialysis visits - 75,390 (3% growth from 2011/12)

**Rouge Valley Centenary (2012/13) Total Patient Volumes**

For year 2013-2013, the volume of hospitalized renal failure patients in the was 168

There were, in the last year 150 days requiring acute dialysis at Centenary ICU

### Renal Dialysis Market Share & Growth Projections

- Dominant market share: Scarborough resident renal dialysis market share is 78%; Durham market share is 7%
- The prevalence of diabetes is higher in the Central East LHIN (7.9%) compared with the provincial average (6.9%). Ontarians with diabetes account for 51% of new dialysis patients.
- Central East LHIN projected estimated growth in Nephrology Inpatient Volumes is 2017 (16.6%) and 2022 (35.3%). Source: Clinical Profile
- Central East LHIN Renal dialysis growth is expected to grow by more than 20% over 10 years (Clinical Profile).
- Approximately **36%** of TSH's end-stage renal disease patients are on home dialysis. The provincial target is **40%**.

<p><b>Mode of Delivery</b>  <i>How are the services/programs delivered? (e.g. inpatient, ambulatory)</i></p>	<p><b><u>Description of Renal Services in Scarborough</u></b></p> <p><b>Inpatient (incentre) hemodialysis and peritoneal dialysis</b> is delivered at TSH (General site).</p> <p><b>Satellite locations (listed above)</b> that provide hemodialysis and peritoneal dialysis services for inpatient and ambulatory patients.</p> <p><b>Transition Unit</b> located at TSH provides education, respite, and self-care for home hemodialysis patients.</p> <p><b>Home hemodialysis and home peritoneal dialysis.</b> Patients are provided with support using primary nursing model of care with home visits for set-up, teaching, training, and retraining of independent home dialysis therapies. The Central East Community Access Centre provides assistive services for individuals who have barriers to participating in home dialysis. There is an active peer support group to support patients on independent home dialysis.</p> <p><b>Continuous Renal Replacement Therapy (CRRT)</b> is provided in TSH (General site) and RVHS (Centenary site) for acute patients requiring dialysis.</p> <p><b>Ambulatory CKD Clinics</b> provides group education and 1:1 teaching for patients in different stages of kidney disease.</p> <p>Other:</p> <ul style="list-style-type: none"> <li>○ Renal symposium for patients with CKD</li> <li>○ PD rounds for staff, led Nephrologist</li> <li>○ St. Michael's Hospital Transplant team provides on-site teaching</li> <li>○ Transplant rounds (occur quarterly)</li> <li>○ Tri-regional annual symposium for providers.</li> </ul> <p><b>Peritoneal Dialysis in Long-Term Care-</b> There are 5 homes that are supported by the program that provide PD to residents requiring treatment.</p> <p><b>Community partners</b> such as Carefirst provide a PD Daycare and other wellness programs.</p> <p><b>Independent Health Facilities</b> partner with TSH nephrologists to provide dialysis to relatively more stable patients than patients in hospital sites.</p>
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**Innovations  
Planned and/or  
Underway**

*What changes are  
planned or in-  
progress to improve  
the service/  
program?(e.g. new  
model of care,  
investment in new  
technology)*

**TSH**

- TSH is currently planning to expand incentre hemodialysis capacity using a phased approach. A Centre of Excellence for Chronic Disease Management (CDM) is being planned in partnership with the YMCA. This initiative will address current capacity challenges and will provide dialysis patients improved access to a variety of services that are seamless and coordinated. Essentially a one-stop shop of navigated CDM related services.

Short and medium term planning to enhance incentre HD capacity includes the expansion to 4 stations at the TSH site and the implementation of nocturnal dialysis.

A new care framework and care delivery model has been developed which will guide and inform how services are delivered to patients with CKD. CDM has been described as the “**new frontier of medicine**”.

- Research is being introduced as related to the introduction of standardized easy to understand education for patients and their families about CKD. A binder will accompany the patient throughout their journey in the CKD program. TSH is partnering with Ryerson University to conduct a formative evaluation research project looking at the efficacy and patient preference related to a patient teaching tools for CKD patients.
- Research trials are in progress regarding in centre hemodialysis care delivery, such as “HemoDiafiltration” management.
- LEAN principles have been introduced in the CKD ambulatory clinic. A recent A3 improvement project was initiated to improve efficiency as related to patient flow and patient satisfaction.
- Dedicated surgical time has been implemented for peritoneal dialysis catheter insertion as well as vascular access. Dedicated times slots in radiology have been created to improve access to tests such as “fistulagrams”. The goal is to increase fistula rates and home dialysis rates.

**RVHS**

- Current partnership with ORN to explore opportunities to improve the quality of pre-dialysis care
- Expansion of CRRT at Ajax in ICU is being explored. This initiative is conducting an assessment of opportunities, in particular identifying patient volumes using the Critical database.
- The RVHS outpatient medicine framework is being evaluated to explore an opportunity to develop a comprehensive chronic disease expansion model. Developed geography – developed GIM clinic adding in allied health support such as a nurse practitioner, support of nephrology, etc. The intent is to expand from Outpatient Services to a Chronic disease management model of care.
- Connecting GTA viewing portal allowing physicians to access patient charts regardless which site they are

- Creating a telemedicine category for physicians who want to provide ongoing care through telemedicine – allowing continuity of care via telemedicine.

	<p><b><u>RVHS cont.:</u></b></p> <ul style="list-style-type: none"> <li>• In progress; connecting a GTA viewing portal which will allow physicians to access patient charts regardless of their location.</li> <li>• Creating a telemedicine category for physicians who choose to provide ongoing care through the telemedicine network. This will enable continuity of care by using telemedicine technology.</li> </ul>
<p><b>Key Metrics</b> <i>Identify and describe the key metrics that capture the quality and performance of the services/programs.</i></p>	<p><b><u>RVHS</u></b></p> <ul style="list-style-type: none"> <li>• Wait time for admission to dialysis/in patient unit</li> <li>• Chronic kidney disease patients who are followed in office heading to dialysis – early recognition or starting of process to facilitate initiation of dialysis</li> <li>• Patient satisfaction</li> <li>• CRRT patient days</li> <li>• Number of patients referred out</li> <li>• Outcome of CRRT</li> <li>• Wait time from ICU to regional centre</li> </ul> <p><b><u>TSH</u></b></p> <ul style="list-style-type: none"> <li>• Decrease prevalence Central Venous Catheter use by 2% annually</li> <li>• Increase vascular access using best practices (AV Fistula access) for hemodialysis patients</li> <li>• Increase prevalence of Independent Dialysis (ID) to 40% by 2015 (40% of all new starts will be on ID within 6 months after initiation of dialysis)</li> <li>• 100% of patients in predialysis center for ID &amp; vascular access</li> <li>• Incentre (ICHD) demand vs. available capacity (actual at 104% current capacity and 85% target- look at ways to decrease numbers)</li> <li>• Performance against approved budget</li> </ul>
<p><b>Other Information</b> <i>Provide additional service/program information (if required)</i></p>	<ul style="list-style-type: none"> <li>•</li> </ul>

## 1.2. Patient Profile

Use the following table to document the high-level patient profile related to the services/programs.

<p><b>Patient Value Statement</b>  <i>Identify the purpose of the service/program area and the value-added benefit that it offers from the perspective of the patient.</i></p>	<ul style="list-style-type: none"> <li>• I want to stay with my physician who has been following me</li> <li>• I want timely access</li> <li>• I want ease of access</li> <li>• Consistency - Nephrologists share vision and follow my treatment plan and patient goals</li> <li>• I want to feel safe</li> <li>• Treated as a person as opposed to a disease state</li> <li>• Feel comfortable with physicians and staff – feel comfortable to discuss issues</li> <li>• Physician and staff know my history</li> <li>• Have confident and knowledgeable staff</li> <li>• Treated close to home to minimize travel</li> <li>• Understanding of patient’s visions and goals and whole team working towards this</li> <li>• Be provided with information patient needs to make informed decision</li> <li>• I want someone to help me navigate the system</li> </ul>
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### **Patient Characteristics**

*Describe the key patient characteristics; consider factors such as demographics, geography, complexity, etc.*

### **Social-Demographic Profile**

Scarborough population 625,930 (2011 census)

- Scarborough has a highly diverse ethnic population. Approximately 58% of total population of Scarborough are visible minorities.
- Risk factors for chronic disease are higher for some Scarborough residents based on ethnicity. Chinese and South Asians are at higher risk for chronic disease such as diabetes. There is a prevalence of approximately 50% of new dialysis for individuals with diabetes.
- Top 3 places of birth among recent residents in Scarborough are: South Asia, Eastern Asia, and South East Asia

### **Aging Demographic**

- An aging population has a greater risk of one or more chronic diseases.
- RVHS/TSH catchment combined- 65% of the population is between 18-64 years. **15% of the population is aged 65 and over.** As an individual ages, the prevalence of chronic disease increases.

**Newcomers-** Research has shown that most newcomers arrive in Canada in good health, in fact are in better health than Canadian-born residents. After a period of time they begin to lose their 'health advantage' which decreases until they eventually match those found in the Canadian-born population. Occasionally health status worsens due to the stressors associated with settlement and other factors. This is known as the "healthy immigrant effect" and highlights the vulnerability of this population. Other challenges include:

- Newcomers may have no primary care providers or OHI/Interim Federal Coverage
- May have no supportive care for pre-existing health conditions
- 26% of Scarborough population is lower socio-economic status
- Language barriers impact access to health care
- Health coverage may impact ability to access system

**Social determinants of health can affect access to health services, such as poverty, education, income, new immigrant status.**

- 26% of Scarborough's population is low income status
- Access to transportation may be limited by income

<p><b>Population Need</b>  <i>Describe the key factors driving population need; consider factors such as social determinants of health, incidence/ prevalence rates, demand (e.g. wait lists, people travelling outside CE LHIN for service/program), etc.</i></p>	<ul style="list-style-type: none"> <li>• Wait time for service</li> <li>• Wait time for hemodialysis</li> <li>• Wait time for acute service CRRT</li> <li>• Volume of patients requiring renal service</li> <li>• Transpiration for patients requiring dialysis</li> <li>• Language barriers</li> <li>• Uninsured patients</li> <li>• Require intensive service</li> <li>• Intervention prior to crisis (get to CKD clinic)</li> <li>• High prevalence of co-morbidities</li> <li>• 20% of population – 1 person household</li> <li>• Lack of access (delayed/perceived) to clinics and associated supports</li> </ul>
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### 1.3. SWOT Analysis

*This section should summarize the SWOT analysis using the following table. For each Strength, Weakness, Opportunity and Threat identified, indicate the organization(s) to which it applies by placing an X in the appropriate box.*

	RVHS	TSH
<b><u>Strengths</u></b>		
• Strong clinical skills – includes certification	x	x
• Strong leadership	x	x
• Strong and long standing community and vendor partnerships	x	x
• Collaborative medical and administrative relationship	x	x
• Large group of nephrologists		x
• Vascular surgery access at The Scarborough Hospital		x
• Interventional radiology access (onsite at TSH/visiting at RVHS)	x	x
• Capturing majority of market share in Scarborough	x	x

	RVHS	TSH
• Close proximity to Rouge and TSH	X	X
• Engagement in research to inform best practice		X
• International partnerships		X
• Largest program in North America		X
• Outcome metrics from ORN and corporate scorecard and program scorecard		X
• Peer support group		X
• Space to accommodate outpatient renal and satellites	X	
• Strong partnership with St. Michael's for transplants	X	X
• Interprofessional model of care	X	X
• Alignment with diabetes programs	X	X
• Work aligned with CDM vision	X	X
• Successful implementation of collaborative programs with community partners (Carefirst)TSH CKD Outreach Program, to support patient transportation needs -Collaboration with Carefirst to support social issues related to CKD (PD Daycare Program).		X  X
<b><u>Weaknesses</u></b>		
• Timely access to service for Rouge at The Scarborough Hospital with significant wait times	X	
• Breaking the continuum of care when there is a change in providers. Different MD when receiving care at other hospital	X	
• Rouge Valley clinician access to resources does not exist	X	
• Delay in initiating patient transfer to The Scarborough Hospital	X	
• Low physician satisfaction due to perception of not being able to practice to full scope based on resources available and lack of access to regional program	X	
• Demand outstrips the capacity	X	X
• Aging physical space	X	X
• Lack of space between dialysis stations(to comply with infection control standards)		X
• Inventory exceeds available storage space		X
• Outgrowth of available resources in terms of equipment and essential supports i.e. DI, lab, OR		X
• Consistent care coordination and patient navigation across the	X	X

	RVHS	TSH
system of provider is lacking acute care		
<ul style="list-style-type: none"> <li>Regional coverage is provided but In-Facility cross coverage at RVHS is not provided</li> </ul>	X	X
<ul style="list-style-type: none"> <li>(BP should be taken off the table same as Ajax; would require ORN to endorse and support divestment elsewhere.</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Competing requirements for capital dollars</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Continuum of services doesn't include end of life/palliative care</li> </ul>	X	X
<ul style="list-style-type: none"> <li>No formal program/process to support Advanced Care Planning</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Cooperation among physicians could be strengthened</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Caribbean community has high prevalence of diabetes and hypertension that can then lead to chronic kidney disease. Consistent processes for proactively "capturing" early CKD in this population is lacking.</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Resources to accurately collect and report on expected ORN data not available</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Gap in information technologies that can inform and support the continuum of care between various providers and agencies, i.e. electronic medical records that are available to patients who receive renal care between hospitals and community agencies.</li> </ul>	X	X
<b>Opportunities</b>		
<ul style="list-style-type: none"> <li>13% market share to capture</li> </ul>		X
<ul style="list-style-type: none"> <li>Integration with Rouge Valley Health Systems Complex Continuing Care Program and give The Scarborough Hospital access to Rouge Valley's wellness programs i.e. cardiac rehab</li> </ul>		X
<ul style="list-style-type: none"> <li>Funding for chronic disease management innovation</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Opportunity to generate revenue through quality based funding model for Renal</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Leverage each other's expertise and strengthen partnerships</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Rebranding the program</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Develop system navigation role to coordinate services and information across the system</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Enhance supports for the frail elderly patients to improve access to home independent dialysis</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Capture stage III and up to V patients, including special focus on high risk residents and new immigrants</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Opportunity to enhance clinical care through academic programming</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Opportunity for Rouge Valley's patients to benefit from Chronic Kidney</li> </ul>	X	

	RVHS	TSH
Disease Clinic earlier to standardize practice against best practice guidelines and care pathways		
<ul style="list-style-type: none"> <li>Expand teaching by The Scarborough Hospital to other tri-hospitals</li> </ul>		X
<ul style="list-style-type: none"> <li>Technology i.e. apps for clinicians and patients to improve prevention and management</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Standards and practices that are consistent between acute care and community providers that align patients with correct service level intensity based on the stage of CKD</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Information technology that supports the smooth transfer of patient information and bi-directional referral of patients between hospital and community providers</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Common credentialing of physicians falls outside scope of the program review and will be addressed by new corporate by-laws if merged.</li> </ul>	X	X
<ul style="list-style-type: none"> <li>A regional call schedule falls outside the scope of the program review as above</li> </ul>	X	X
Open IHF's to support increased demand for services if merger were to occur. This opportunity does not fall under the scope of the review (siting) and would be determined by the MoHLTC	X	X
<ul style="list-style-type: none"> <li>Opportunity to leverage strengths between satellite centres and hub renal program to continue to standardize care and improve quality</li> </ul>		X
<b>Threats</b>		
<ul style="list-style-type: none"> <li>Political influence depending on the elected party</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Increasing demand and growing population exceeds capacity</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Economic profile of our community challenges funding raising ability of Foundation</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Aging population/increase in demand</li> </ul>	X	X
<ul style="list-style-type: none"> <li>Cost of equipment and supplies increase</li> </ul>	X	X

#### 1.4. Environmental Scan

*This section should contain a summary of key external factors (i.e. influences/trends) that should be considered in the due diligence process. At minimum, Working Groups should consider using a PESTLE framework for identifying external factors – Political, Economical, Social, Technological, Legal, Environmental. Note: Complete only for the sections of the framework that are relevant to your Working Group area of focus. For each of the sections that are relevant, focus on the key 2-3 external factors that are most important to consider.*



<p><b><u>Political</u></b>  <i>Factors that include provincial strategies and/or programs, LHIN priorities/directions and other government trends</i></p>	<ul style="list-style-type: none"> <li>• LHIN directive to provide renal services regionally – priority program</li> <li>• ORN provides governance</li> <li>• Decreased government funding for hospitals</li> <li>• Kidney Foundation</li> <li>• Community Care First – access &amp; equity</li> <li>• Community advisory groups</li> <li>• Ontario Action Plan for Healthcare will guide health strategy</li> <li>• Change of government parties in power</li> <li>• Shift from HSP to community</li> <li>• Relationships with primary care</li> </ul>
<p><b><u>Economical</u></b>  <i>Factors that include fiscal realities, funding models and other economic trends</i></p>	<ul style="list-style-type: none"> <li>• ORN funding model – QBP</li> <li>• Federal government funding decision i.e. new immigrants and refugees status and guidelines impact hospital's finances</li> <li>• Change in funding model – QBP, HBAM</li> <li>• Unemployment</li> <li>• Lack of drug coverage</li> <li>• Inflation – drug costs/supplies</li> </ul>

<p><b>Social</b>  <i>Factors that include demographics, socio-cultural trends, social determinants of health and other social/community trends</i></p>	<ul style="list-style-type: none"> <li>• Low socio-economic status <ul style="list-style-type: none"> <li>- Affordability</li> <li>- Impacts their communities lobbying power/influence</li> </ul> </li> <li>• High prevalence of ethnic groups at risk for chronic diseases</li> <li>• Supports for caregivers; lower resources available</li> <li>• Language barriers/translation</li> <li>• Decreased income</li> <li>• Lifestyle issues</li> <li>• Transportation access</li> <li>• Aging medical community/providers</li> <li>• Increasing referral population growth in York Region not accommodated by Mackenzie Health that utilize services of the Scarborough Regional Program.</li> </ul>
<p><b>Technological</b>  <i>Factors that include information management and information technology trends, globalization, innovations in patient care and other technical trends</i></p>	<ul style="list-style-type: none"> <li>• Electronic records <ul style="list-style-type: none"> <li>- Integrated e-record – timely access anywhere</li> <li>- Patient self-managed/viewed record</li> <li>- CGTA – access information</li> </ul> </li> <li>• Telemedicine</li> <li>• NOVARI – surgical record referrals</li> <li>• Teleconference/Skype/Go-To-Meeting</li> <li>• Equipment advancement</li> <li>• Depreciation of machine/equipment – replacement</li> <li>• Ontario Renal Reporting System</li> </ul>

<p><b><u>Legal</u></b>  <i>Factors that include relevant legislation and other legal trends</i></p>	<ul style="list-style-type: none"> <li>• Legislation – Excellent Care for All Act, ORN</li> <li>• PHIPPA</li> <li>• Bill 168</li> <li>• CHA – Canada Health Act – accessibility</li> <li>• Health &amp; Safety Act</li> <li>• Green Act</li> <li>• Biohazard Waste Management</li> </ul>
<p><b><u>Environmental</u></b>  <i>Factors that include attitudes towards “green” or ecological products/resources, corporate social responsibility trends and other environmental trends</i></p>	<ul style="list-style-type: none"> <li>• Water – quality</li> <li>• Electricity – cost</li> <li>• Wastes (biohazard)</li> <li>• Weather – impacts patient’s ability to travel/access service</li> </ul>

## 1.5. Leading Practices

*The Leading Practice Summary provided by KPMG is included for reference in the Appendix of the Workbook. The Summary is a high-level review of leading practice themes and is intended to be a conversation-starter for the purpose of assisting in the due diligence process in order to determine what benefits a merger of the two hospital corporations will provide to the Scarborough community.*

*The Leading Practice Summary is only one source to obtain ideas and insights related to leading practices. The Working Group is also encouraged to draw on their own knowledge, experiences and sources to complete the following section.*

<p><b>Additional Leading Practices for Consideration</b> <i>Identify any additional leading practices based on the Working Groups knowledge, experience and sources.</i></p>	<ul style="list-style-type: none"><li>• Data collection and reporting mechanism being utilized and achieved in British Columbia</li></ul>
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**Leading Practices Already Implemented**

*Based on the Leading Practice Summary and the additional leading practices listed above, identify those that are already in place at RVHS and/or TSH.*

- Kidney Foundation of Canada Ontario chapter has developed specific cultural groups i.e. Afro-Caribbean group, Chinese groups, as means to better support cultural needs and awareness of CKD.
- The Scarborough Regional Nephrology Program has established international partnerships i.e. Hong Kong, China, Mongolia to share best practices and conduct research. Practitioners from these countries have come to the program to learn and observe practices and have incorporated services and practices of the Scarborough Nephrology Program in their countries.
- The Scarborough Regional Nephrology program has established a Home Dialysis transition unit that enable prolonged LOS on home therapies i.e. respite, refresh skills, and increase home dialysis by encouraging patients to trial home dialysis prior to making the decision of which modality to choose.
- The Scarborough Regional Program has established with their community partner, Carefirst, a PD day care program that enables PD patients to mitigate feelings of social isolation within their home and access wellness programs at Carefirst and an opportunity to socialize. They are enabled to do their PD treatments in dedicated areas of the program.
- TSH's Primary care model of service delivery incorporates primary care practitioners to be involved and part of the care delivery of Nephrology patients and are educated on the management of Nephrology patients through inservices and educational forums hosted and delivered by our Nephrologists.
- TSH's Infection control practices from surveillance to treatment to prevention to immunization have reduced and prevented transmission of Antibiotic Resistant Organisms in the dialysis unit.
- TSH has succeeded in increasing fistula rates, decreasing CVC lines in prevalent patients through dedicated resources the support surveillance, patient self management and education of patients and staff. Patient educational materials/resources have been designed with self management language and philosophies and are currently being evaluated in an evaluative study designed by Ryerson University.
- TSH reviews regular monthly CVC infection cases with IPAC and patient follow up in clinic and generates reports that are tracked and reported to direct PDSA improvement initiatives.
- TSH conducts annual tri-regional dialysis conference to share knowledge across the GTA.
- TSH conducts Staff workshops on dialysis best practices, e.g. vascular access management and maintenance and has implemented rigorous processes that enable staff to integrate learned skills and knowledge into practice i.e. audits, etc.

	<ul style="list-style-type: none"> <li>• TSH conducts patient symposia to educate patients and their caregivers, i.e. VA, transplants and encourages self management</li> <li>• TSH has incorporated self management approaches within their care delivery model and has trained staff.</li> <li>• RVHS has comprehensive cardiology program that includes interventional cardiology and cardiac rehab</li> <li>• RVHS has an outpatient medical clinic for addressing needs of the patients who present to the ED and inpatients requiring follow up.</li> </ul>
<p><b>Benefits of a Potential Merger</b>  <i>Identify the leading practices that could be adopted and/or enhanced through a potential merger of the two hospitals?</i></p>	<ul style="list-style-type: none"> <li>•</li> </ul>

## 2. Opportunity Assessment

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### 2.1. Overview of Opportunities

*This section should provide an overview of the portfolio of potential opportunities identified by the Working Group. Opportunities should be numbered for ease of reference to Detailed Opportunity Assessment section.*

Reference	Opportunity
1	Maximize resource utilization as a means to bring about practice and financial efficiencies.
2	Integration of services that provide full continuum of nephrology care, improved access to service and essential supports and quality of care.
3	To enhance research, education, mentorship / leadership.

4	Standard of Care delivery based on best practice may leverage the adoption and implementation of a chronic disease prevention and management model of care across the continuum of care.
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## 2.2. Opportunity Assessment

For each of the opportunities identified in Section 2.1, complete the table on the following page.

*Facilitation Tip: Prior to assessing the potential opportunities, work together as a Working Group brainstorming the possibilities. Encourage Working Group members to consider different ideas and different types of integration scenarios (e.g. consolidation, outsourcing).*

**Opportunity 1:** Maximize resource utilization as a means to bring about practice and financial efficiencies.

### Overview:

<b>Description</b>	Together we can leverage our combined human resources, financial resources, IT resources, decision support to support a LEAN and efficient Nephrology patient care delivery model
<b>Anticipated Alignment to Guiding Principles</b> <i>Shade the relevant guiding principle(s)</i>	All guiding principles are aligned to the opportunity.

### Potential Benefits and Risks:

<b>Potential Benefits</b> <i>Identify the most significant potential benefits. Where relevant, consider the following perspectives when identifying benefits: Patient, Community, Organization, and Clinicians &amp; Staff.</i>	
<b>Patient</b>	<ul style="list-style-type: none"> <li>• Seamless and timely access to care. Enhanced / equal access to the best service providers and multidisciplinary team.</li> <li>• Safe and unfragmented care.</li> <li>• Decreased wait time.</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>• Improved access closer to home.</li> <li>• Enhanced lobbying strength.</li> <li>• Easier navigation of nephrology services.</li> <li>• Better responsiveness to demand.</li> <li>•</li> </ul>
<b>Organization</b>	<ul style="list-style-type: none"> <li>• Improved recruitment and retention.</li> <li>• Reduce unnecessary waster and duplication.</li> <li>• Create stronger Centre of Excellence and become leaders in Nephrology care.</li> <li>• Leverage size to become a more innovative program in Nephrology care.</li> <li>•</li> </ul>
<b>Clinicians &amp; Staff</b>	<ul style="list-style-type: none"> <li>• Improve communication linkages to share patient information.</li> <li>• Enhanced staff opportunities by leveraging each others expertise, e.g. education / certification.</li> </ul>

<b>Potential Risks</b>	
<i>Identify the key risks that must be considered (e.g. high impact and high probability). For each risk identified, provide a proposed risk mitigation strategy.</i>	
<b>Risk</b>	<b>Mitigation Strategy</b>
<ul style="list-style-type: none"> <li>Hospitals not able to come together, e.g. we vs. them. High impact, low probability</li> </ul>	<ul style="list-style-type: none"> <li>Transparent dialogue and communication</li> </ul>
<ul style="list-style-type: none"> <li>Lack of support from all stakeholders (High impact, ? probability)</li> </ul>	<ul style="list-style-type: none"> <li>Early stakeholder engagement – internal and external and needs to be ongoing</li> </ul>
<ul style="list-style-type: none"> <li>ORN does not support pooling of resources (High impact, low probability)</li> </ul>	<ul style="list-style-type: none"> <li>Timely communication of decisions and suggestions / recommendations (High impact, low probability)</li> </ul>
<ul style="list-style-type: none"> <li>Cost to pool resources (High impact, high probability)</li> </ul>	<ul style="list-style-type: none"> <li>Understand financial positions of both hospitals and create a detailed action to prioritize needs.</li> </ul>

**Benefit Realization:**

<b>Estimated Timeline</b> <i>Shade the estimated timeline (choose only one)</i>	<ul style="list-style-type: none"> <li>Short-term (up to 1 year)</li> <li></li> </ul>
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<b>Key Metrics to Measure Benefits</b>	<ul style="list-style-type: none"> <li>Patient satisfaction</li> <li>Staff satisfaction and recruitment / retention rates</li> <li>Outcomes – access, demand vs. capacity</li> <li>Educational opportunities</li> <li></li> </ul>
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**Feasibility Assessment:**

<b>Key Metrics to Estimate High-Level Financial Impact</b>	<ul style="list-style-type: none"> <li></li> </ul>
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<b>Required Investments – Operating and Capital (if applicable)</b> <i>Identify the key financial investments (e.g. one-time costs) required to realize the benefits.</i>	<ul style="list-style-type: none"> <li></li> </ul>
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<b>Analysis</b>	<ul style="list-style-type: none"> <li></li> </ul>
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<b>Anticipated Financial Impact</b> <i>Indicate the order or magnitude financial impact (stated in the \$100,000). Is this opportunity a financial investment or savings?</i>	<ul style="list-style-type: none"> <li></li> </ul>
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## Opportunity 2

- Integration of services that provider full continuum of nephrology care, improved access to service and essential supports and quality of care.

### Overview:

<b>Description</b>	<p>Full integration of services enable:</p> <ul style="list-style-type: none"> <li>• Improved transitions in care continuum</li> <li>• Equal access to nephrology services by all nephrologists (RVHS &amp; TSH)</li> <li>• Support of increased demand, i.e. physical space, HR and other services, i.e. Interventional Cardiology, IR</li> <li>• Access to essential supports, i.e. Rehab, CC</li> <li>• Growth and promotion of Home Dialysis</li> <li>• Increased engagement of community partners</li> <li>• Leverage the support and mandate of the ORN</li> </ul>
<b>Anticipated Alignment to Guiding Principles</b> <i>Shade the relevant guiding principle(s)</i>	<ul style="list-style-type: none"> <li>• Alignment – all guiding principles align.</li> </ul>

### Potential Benefits and Risks:

<b>Potential Benefits</b> <i>Identify the most significant potential benefits. Where relevant, consider the following perspectives when identifying benefits: Patient, Community, Organization, and Clinicians &amp; Staff.</i>	
<b>Patient</b>	<ul style="list-style-type: none"> <li>• Improved access to service and to interdisciplinary team to enable time to make more informed decisions, i.e. Modality and dialysis (body) access.</li> <li>• One stop shopping to full continuum of care and service.</li> <li>• Increased satisfaction</li> <li>• Achieve better clinical outcomes and higher quality of life.</li> <li>•</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>• Possibility of keeping community well to decrease demand on limited high cost resources, i.e. ER, admissions, dialysis, acute star</li> <li>• Delay progression of CKD, decrease burden of associated co-morbid factors.</li> <li>• Increase self management and independence</li> </ul>
<b>Organization</b>	<ul style="list-style-type: none"> <li>• Increase efficiencies and decrease cost</li> <li>• Decrease demand on limited and costly resources.</li> <li>• Increase revenues.</li> <li>•</li> </ul>
<b>Clinicians &amp; Staff</b>	<ul style="list-style-type: none"> <li>• Increased satisfaction and retention.</li> <li>• Increased knowledge and professional and skill development.</li> <li>•</li> </ul>

<b>Potential Risks</b> <i>Identify the key risks that must be considered (e.g. high impact and high probability). For each risk identified, provide a proposed risk mitigation strategy.</i>
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Risk	Mitigation Strategy
<ul style="list-style-type: none"> <li>Community dissatisfaction with changes, i.e. Current familiarity with status quo.</li> </ul>	<ul style="list-style-type: none"> <li>Communication, transparency, increased engagement, encouraged feedback.</li> </ul>
<ul style="list-style-type: none"> <li>Change of culture generating negativity, i.e. loss of identity</li> </ul>	<ul style="list-style-type: none"> <li>Create common positive vision through engagement, communication and seeking of feedback.</li> </ul>
<ul style="list-style-type: none"> <li>Lack of consensus among physicians regarding the vision of integrated nephrology patient management.</li> </ul>	<ul style="list-style-type: none"> <li>Explore and identify existing evidence based best practice models to direct / inform vision.</li> </ul>
<ul style="list-style-type: none"> <li>Reluctance among physicians to equitably divide market share (fiscal, resources)</li> </ul>	<ul style="list-style-type: none"> <li>Encourage patient focused perspective, engagement, and communication.</li> </ul>
<ul style="list-style-type: none"> <li></li> </ul>	
<ul style="list-style-type: none"> <li></li> </ul>	

**Benefit Realization:**

<b>Estimated Timeline</b> <i>Shade the estimated timeline (choose only one)</i>	<ul style="list-style-type: none"> <li>Medium-term (1-2 years)</li> </ul>
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<b>Key Metrics to Measure Benefits</b>	<ul style="list-style-type: none"> <li>Wait times to access nephrology related services (capacity meets demand)</li> <li>Decreased demand over time</li> <li>Improved rates of fistula and graft, decreased CVC.</li> <li>Increased rate of home modality or patient independence.</li> <li></li> </ul>
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**Feasibility Assessment:**

<b>Key Metrics to Estimate High-Level Financial Impact</b>	<ul style="list-style-type: none"> <li></li> </ul>
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<b>Required Investments – Operating and Capital (if applicable)</b> <i>Identify the key financial investments (e.g. one-time costs) required to realize the benefits.</i>	<ul style="list-style-type: none"> <li></li> </ul>
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<b>Analysis</b>	<ul style="list-style-type: none"> <li></li> </ul>
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<b>Anticipated Financial Impact</b> <i>Indicate the order or magnitude financial impact (stated in the \$100,000). Is this opportunity a</i>	<ul style="list-style-type: none"> <li></li> </ul>
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financial investment or savings?

**Opportunity 3: To enhance research, education, mentorship / leadership.**

**Overview:**

<b>Description</b>	Enhanced opportunities for research, education, mentorship/leadership brought about with expanded scope and span with merged/integrated organization
<b>Anticipated Alignment to Guiding Principles</b> <i>Shade the relevant guiding principle(s)</i>	<ul style="list-style-type: none"> <li>Alignment – all guiding principles align.</li> </ul>

**Potential Benefits and Risks:**

<b>Potential Benefits</b>	
<i>Identify the most significant potential benefits. Where relevant, consider the following perspectives when identifying benefits: Patient, Community, Organization, and Clinicians &amp; Staff.</i>	
<b>Patient</b>	<ul style="list-style-type: none"> <li>Follow up more likely when patients are educated</li> <li>Peer support, self management and higher level engagement with more knowledgeable patients and families.</li> <li></li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>Increased support for patients and families</li> <li>Early detection improved leading to healthier communities</li> <li>Improved access to services</li> <li></li> </ul>
<b>Organization</b>	<ul style="list-style-type: none"> <li>Stronger “raison d’etre”; Nephrology draws upon many other services who develop an expertise in managing and providing care to Renal patients</li> <li>Increased Profile</li> <li>Centre of Excellence given developed skill development and knowledge</li> </ul>
<b>Clinicians &amp; Staff</b>	<ul style="list-style-type: none"> <li>Opportunity to expand role to include research involvement; increasing knowledge and exposure.</li> <li>Opportunity to apply learnings to practice.</li> <li>Increased opportunity to support more robust learning forums and clinical areas for students, residents and fellows</li> </ul>

<b>Potential Risks</b>	
<i>Identify the key risks that must be considered (e.g. high impact and high probability). For each risk identified, provide a proposed risk mitigation strategy.</i>	
<b>Risk</b>	<b>Mitigation Strategy</b>
<ul style="list-style-type: none"> <li>With research activities focusing on using single source supplier vs. multiple providers, flexibility to substitute alternative methods, limited</li> <li>Time, resource limits to support education and research; increased workload</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>Participate in research activities that utilize multiple providers</li> <li>Build fund that supports research and the resources required to conduct</li> </ul>

**Benefit Realization:**

<b>Estimated Timeline</b> <i>Shade the estimated timeline (choose only one)</i>	<ul style="list-style-type: none"> <li>• Medium-term (1-2 years) x (merger)</li> <li>• Long-term (3-5 years) x (not merger)</li> </ul>
<b>Key Metrics to Measure Benefits</b>	<ul style="list-style-type: none"> <li>• None Identified</li> </ul>

**Feasibility Assessment:**

<b>Key Metrics to Estimate High-Level Financial Impact</b>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Required Investments – Operating and Capital (if applicable)</b> <i>Identify the key financial investments (e.g., one-time costs) required to realize the benefits.</i>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Analysis</b>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Anticipated Financial Impact</b> <i>Indicate the order or magnitude financial impact (stated in the \$100,000). Is this opportunity a financial investment or savings?</i>	<ul style="list-style-type: none"> <li>•</li> </ul>
	<ul style="list-style-type: none"> <li>•</li> </ul>

**Opportunity 4: Standard of Care delivery based on best practice may leverage the adoption and implementation of a chronic disease prevention and management model of care across the continuum of care.**

**Overview:**

<b>Description</b>	<ul style="list-style-type: none"> <li>• The creation and development of standardized care delivery that includes principles of Chronic Disease Prevention and Management would lead to other opportunities and benefits in the overall management of Nephrology patients</li> </ul>
<b>Anticipated Alignment to Guiding Principles</b> <i>Shade the relevant guiding principle(s)</i>	<ul style="list-style-type: none"> <li>• All align</li> </ul>

## Potential Benefits and Risks:

<b>Potential Benefits</b>	
<i>Identify the most significant potential benefits. Where relevant, consider the following perspectives when identifying benefits: Patient, Community, Organization, and Clinicians &amp; Staff.</i>	
<b>Patient</b>	<ul style="list-style-type: none"> <li>● Improved self management</li> <li>● Improved Quality of Life</li> <li>● Timely Interventions</li> <li>● Personalized Care</li> <li>● Improved Access to service</li> <li>●</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>● Comprehensive program that manages all aspects of Chronic Disease; healthier Community</li> <li>● Increased awareness of health factors causing Renal Disease; positive lifestyle changes</li> </ul>
<b>Organization</b>	<ul style="list-style-type: none"> <li>● More efficient use of resources</li> <li>● Prevention of acute illness may decrease demand on acute resources</li> <li>● Improved overall access – following standard pro-active care delivery model.</li> </ul>
<b>Clinicians &amp; Staff</b>	<ul style="list-style-type: none"> <li>● Increased awareness of chronic disease and more proactive approach to prevention</li> <li>● Increase knowledge pertaining to CDPM and best practice</li> <li>● Access to tools to manage</li> <li>● Promotes right caregiver, right time, right patient</li> <li>●</li> </ul>

<b>Potential Risks</b>	
<i>Identify the key risks that must be considered (e.g. high impact and high probability). For each risk identified, provide a proposed risk mitigation strategy.</i>	
Risk	Mitigation Strategy
<ul style="list-style-type: none"> <li>● Multicultural and diverse patient population may be challenged to understand and impede self-management</li> <li>●</li> </ul>	<ul style="list-style-type: none"> <li>● Provide right provide/same language/translation services to non-English speaking patient groups</li> <li>● Utilize translation services</li> <li>●</li> </ul>
<ul style="list-style-type: none"> <li>● Inequity due to vulnerable populations who can't access technology</li> </ul>	<ul style="list-style-type: none"> <li>● Foundation, partnerships and community resource – social, educational, financial support</li> <li>● Flexible delivery of information, consistency and technology</li> <li>● Legislation, standards, policies – support formal governance structure</li> <li>●</li> </ul>
<ul style="list-style-type: none"> <li>● Misalignment of demand / growth/ needs with community programs/ stakeholders and balancing expectations</li> </ul>	<ul style="list-style-type: none"> <li>● Leverage existing partnerships, i.e. Transplants: Heart and Stroke, The Kidney Foundation, CDA, CCN, CCO/ORN, St. Michal's Hospital – tertiary, community – networks, partners</li> <li>● Early detection of CKD / Chronic disease for high risk population - Care first, CDA, TAIBU – Chinese cross cultural service, newcomer agency, medial – marketing, advertising, health promotion, prevention</li> <li>● Collaboration – standardized messaging, Translation of printed material. Access - partnerships</li> </ul>
<ul style="list-style-type: none"> <li>● Increased volumes – increased demand on limited resource – inequitable access to service by patients or groups that are vulnerable</li> </ul>	<ul style="list-style-type: none"> <li>● Development of best practice model and strategy to ensure consistent access and messaging to support shortage.</li> </ul>

**Benefit Realization:**

<b>Estimated Timeline</b> <i>Shade the estimated timeline (choose only one)</i>	<ul style="list-style-type: none"><li>• Long-term (3-5 years)</li></ul>
<b>Key Metrics to Measure Benefits</b>	<ul style="list-style-type: none"><li>• Conservable days – decreased LOS</li><li>• Decreased ED visits</li><li>• Decreased LOS therefore sustainability</li><li>•</li></ul>

**Feasibility Assessment:**

<b>Key Metrics to Estimate High-Level Financial Impact</b>	<ul style="list-style-type: none"><li>•</li></ul>
<b>Required Investments – Operating and Capital (if applicable)</b> <i>Identify the key financial investments (e.g. one-time costs) required to realize the benefits.</i>	<ul style="list-style-type: none"><li>•</li></ul>
<b>Analysis</b>	<ul style="list-style-type: none"><li>•</li></ul>
<b>Anticipated Financial Impact</b> <i>Indicate the order or magnitude financial impact (stated in the \$100,000). Is this opportunity a financial investment or savings?</i>	<ul style="list-style-type: none"><li>•</li></ul>

### 2.3. Stakeholder Engagement Information

This section should summarize the input considered from stakeholder engagement activities. Content in this section should be drawn from the Working Group's **Stakeholder Engagement Summary**. (Refer to the Guiding Framework for expectations).

*Note:* This section will be completed before final submission of the Workbook. Working Groups are to use the Stakeholder Engagement Summary as a tool to document and consider stakeholder input/feedback collected during the due diligence process.

Item	Date	Input Received From (name, title, organization)	Contact Information	Summary of Feedback Received	Working Group Response (Accepted, Rejected, Modified, No Action)	Comment/Rationale
1.	Aug 23	Sam Watt, Social Worker, TSH	<a href="mailto:swatt@tsh.to">swatt@tsh.to</a>	<p><u>Benefits:</u></p> <ul style="list-style-type: none"> <li>Public opinion/impression that the program services all of Scarborough given size.</li> </ul> <p><u>Risks/Concerns:</u></p> <ul style="list-style-type: none"> <li>Potential to leverage CCC at RVHS which may lead to dissolving the partnership with Bridgepoint</li> <li>Timothy Eaton site may be jeopardized</li> </ul> <p><u>Suggestions/Opportunities/Ideas:</u></p> <ul style="list-style-type: none"> <li>Access for Nephrology patients to RVHS rehab services</li> </ul> <p><u>Additional Comments:</u></p>		

2.	Aug 19	Barbara Scott, PCD MNCC and CC, TSH	<a href="mailto:bscott@tsh.to">bscott@tsh.to</a>	<p><u>Benefits:</u></p> <ul style="list-style-type: none"> <li>• Opportunity for standardization of care delivery model throughout Scarborough</li> </ul> <p><u>Risks/Concerns:</u></p> <ul style="list-style-type: none"> <li>• Currently, CRRT patients at RVHS can be criticised out if chronic capacity unavailable at Regional Nephrology program. Under one organization, chronic dialysis resources needs to be able to meet demand. Currently it is overcapacity and this may increase pressure on limited resources.</li> </ul>		
3	Aug 21	Sari Greenwood, PCM Oncology TSH	<a href="mailto:sgreenwood@tsh.to">sgreenwood@tsh.to</a>	<ul style="list-style-type: none"> <li>•</li> </ul> <p><u>Risks/Concerns:</u></p> <ul style="list-style-type: none"> <li>• Currently Neph patients come to out patient/home onc program for access to increased home care. Draws on limited resources. There is opportunity to develop additional service as part of the Neph program to meet their needs.</li> </ul>		
4.	Aug 19	Shelley Linden, Dietitian, TSH	<a href="mailto:slinden@tsh.to">slinden@tsh.to</a>	<p><u>Benefits:</u></p> <ul style="list-style-type: none"> <li>• Access to cardiac rehab wellness programs for Neph patients.</li> <li>• Nephrologists would be one group and patients would have equal access to Neph services</li> </ul> <p><u>Risks/Concerns:</u></p> <ul style="list-style-type: none"> <li>• Increased demand; lack of resources to support demand</li> <li>• Timothy Eaton site affected</li> </ul>		



5	Aug 19	Sarah Mandavi	smandavi@tsh.to	<u>Benefits:</u> <ul style="list-style-type: none"> <li>• Leverage needed expansion and enhanced patient care through better access to interdisciplinary team and CKD program</li> </ul> <u>Risks/Concerns:</u> <ul style="list-style-type: none"> <li>• Limited resources to keep up with demand</li> </ul> <u>Suggestions/Opportunities/Ideas:</u> <ul style="list-style-type: none"> <li>• Another ICHD site at RVHS</li> <li>• Increased scope and spread of expertise among interdisciplinary team</li> </ul> <u>Additional Comments:</u> <ul style="list-style-type: none"> <li>• Potential leverage to acquire additional allied health through merger?</li> </ul>		

### 3. Recommended Integration Opportunities

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#### 3.1. Alignment to Guiding Principles

*For each of the recommended opportunities, complete the table on the following page. Specifically, for each of the recommended integration opportunities, Working Groups must clearly articulate a rationale that describes the degree to which the integration opportunity supports each of the Guiding Principles. In building this rationale, the Working Groups will use the most relevant measures/indicators based on the service/program.*

**Recommendation 1: [Insert Recommendation Statement]**

**Description:**

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**Alignment to Guiding Principles:**

	<b>COLLABORATION</b> <i>We believe that collaboration will lead us to better solutions.</i>	<b>ACCESSIBILITY</b> <i>We believe in providing accessible patient care to our community.</i>	<b>SUSTAINABILITY</b> <i>We believe that we must find new solutions to sustain our health care system.</i>	<b>EXCELLENCE</b> <i>We believe that we must never waver from our responsibilities to provide quality patient care and to be accountable to our stakeholders.</i>
<b>Rationale</b>	•	•	•	•
<b>Measures/ Indicators</b>	•	•	•	•

## 4. Workbook Sign-Off

*Identify the individuals that were involved in the completion of the Workbook.*

Organization - Program	Team Member:
	Signature Print Name Date
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Organization - Program	Team Member:
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## Appendix: Leading Practice Summary (KPMG)

The purpose of this section is to highlight and identify high-level leading practices themes for the purpose of assisting in the due diligence review. The themes that have been identified in this document are from several sources and are meant to provide Working Group members with a broad view of the themes related to leading practices for **Nephrology**. These sources include KPMG's own experience, global thought leadership and external sources (where identified).

The below tables summarizes leading practices themes for Nephrology.

Leading Practice Themes	
<p><b>Nephrology Care in a Fully Integrated Care Model:</b></p> <p><b>Lessons from the Geisinger Health System<sup>1</sup></b></p>	<p><b>Anemia Management</b></p> <ul style="list-style-type: none"> <li>In 2003, the Geisinger Nephrology Department initiated a protocol-driven, pharmacist managed anemia program for all CKD patients seen in the department. The protocol was co-jointly written by the nephrology and pharmacy departments.</li> <li>Patients in the program were tested monthly for select conditions with required therapy coordinated by the pharmacist per protocol. Deviations from the protocol were discussed with the nephrology department by the pharmacist for appropriate therapeutic adjustments, predominantly via electronic messages through the EHR. The results showed significant improvement in clinical and financial outcomes in the protocol-driven, pharmacist-managed program.</li> <li>At this time, &gt;200 patients are actively managed in the program. Additional benefits include reduced number of days to reach goals, increase of in-home administration of treatment and reduction in average weekly dose of ESA.</li> </ul> <p><b>Predictive Analysis – Managing the CKD Population</b></p> <ul style="list-style-type: none"> <li>Data mining techniques are being applied to in house EHRs in order to proactively identify high risk, or worsening patients with earlier stage CKD that have not yet received specialty nephrology services. By identifying patients early, better outcomes can be achieved as well as significant cost avoidance by slowing disease progression and reducing the need for costly acute interventions. Example:</li> <li>A large percentage of patients in the United States are not seen until the initiation of dialysis. It is well established that late referrals to nephrologists, within 90 days of initiation of dialysis, are associated with increased costs and</li> </ul>

<sup>1</sup> *Nephrology Care in a Fully Integrated Care Model: Lessons from the Geisinger Health System*; Clin J Am Soc Nephrol 8: 687–693, 2013

<b>Leading Practice Themes</b>	
	<p>decreased patient outcomes.</p> <ul style="list-style-type: none"> <li>• To combat this, Geisinger instituted a program mining EHRs to identify patients with CKD stage 4 or greater that had not been seen by the nephrology department. A care gap nurse would then route an unsigned electronic request for a nephrology consultation to the primary care physician (PCP) for consideration. The PCP then has the option to sign the order or to discard it. If the PCP signs the order, it is routed back to the care gap nurse who would then contact the patient and review the reason for the upcoming visit.</li> <li>• Using this method, there has been a significant two-fold decrease in the number of late referrals of CKD patients to our nephrology practice. The program has aided us in increasing the number of patients starting hemodialysis with an arteriovenous fistula (AVF) or graft by 26%. It has also assisted in increasing our peritoneal dialysis (PD) population by 180%.</li> </ul>
<b>Integrated Care Supported by Interoperability of Electronic Systems<sup>2</sup></b>	<ul style="list-style-type: none"> <li>• Worcestershire Health Economy has developed a new automated approach to support the electronic communication of clinical information into the GP clinical systems. This means paperwork can be completed online and shared between teams across care settings.</li> <li>• Every week hundreds of patients are discharged and for some, a comprehensive package of continuing care is essential. Worcestershire has developed an integrated electronic solution that makes the process of completing all the associated paperwork much easier at the acute trust, by integrating the production of clinical information into the operational systems and with primary care.</li> <li>• The information can then be passed to community, social care teams, patients and carers alike. The solution allows staff to complete continuing care paperwork electronically and share it with relevant parties via secure messaging. The solution was developed by the acute trust and GPs working in partnership, ensuring the workload/productivity benefits are achieved by all organisations involved.</li> </ul>
<b>Care Self Management</b>	<ul style="list-style-type: none"> <li>• By leveraging technology, care providers can empower patients to take a more active role in the monitoring and management of chronic conditions. One particularly successful solution is Renal PatientView implemented by the NHS.</li> </ul> <p><b>Renal PatientView</b></p>

<sup>2</sup> <http://www.connectingforhealth.nhs.uk/systemsandservices/interop>

Leading Practice Themes	
	<ul style="list-style-type: none"> <li>• Patient access to records – Renal PatientView was set up by the Renal Information Exchange, a partnership of patient groups, professional bodies and renal registries. It provides online access to renal patients’ diagnosis, treatment, and their latest test results. Patients can share this information with anyone they want, and view it from anywhere in the world.<sup>3</sup></li> <li>• Renal PatientView has more than 17,000 registered users in 43 of the 52 kidney units nationwide, with 9,000 visitors making 25,000 visits a month. It is now developing a two-way information exchange between patients and clinicians.<sup>4</sup></li> </ul>
<b>Early Identification of Kidney Disease: Lab Strategy<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• If kidney disease is identified early, then it can often be managed with diet and lifestyle changes, as well as medications. By taking these steps, patients can often postpone or even avoid dialysis.</li> <li>• The BC Chronic Kidney Disease Lab Strategy is key to early identification of those at highest risk for kidney disease. When a physician orders a blood test for kidney function, BC laboratories automatically report the GFR (estimated glomerular filtration rates), as well as serum creatinine. GFR has been shown in medical research literature to be a more accurate measure of kidney function, and is relatively easy to interpret. The lab strategy is a collaboration of the BC Renal Agency, the Ministry of Health, the BC Medical Association and the laboratory physicians.</li> </ul>
<b>Promising Practices in CKD<sup>6</sup></b>	<ul style="list-style-type: none"> <li>• The model of care is changing - The paradigm shift from a physician model to a proactive Patient focus and inter-professional care, leads to earlier identification, and encourages the Patient to partner with healthcare professionals in their treatment.</li> <li>• A Continuum of Care with the focus on early intervention does impact clinical outcomes, as more people are successfully diagnosed with CKD symptoms earlier (where early intervention includes: advertising, educational events for the public and healthcare providers and conducting targeted screening).</li> <li>• The paradigm of Patient involvement has radically shifted from a passive and reactive role to one of an informed partner, as education and engagement has increased self-management capabilities.</li> <li>• Focused partnerships with industry can bring best practices, different thinking</li> </ul>

<sup>3</sup> <https://www.renalpatientview.org/>

<sup>4</sup> [http://www.kidneycare.nhs.uk/\\_Ourworkprogrammes-Treatmentoptions-Renalpatientview-Toolstohehelpyou.aspx](http://www.kidneycare.nhs.uk/_Ourworkprogrammes-Treatmentoptions-Renalpatientview-Toolstohehelpyou.aspx) (DH, 2012)

<sup>5</sup> <http://www.bcrenalagency.ca/node/150>

<sup>6</sup> CKD Initiatives Promising Practices Report, CE LHIN, April 2010



## Leading Practice Themes

and different funding models (dollars and in-kind) to accelerate the pace of change and improve Patient outcomes.

- Monitoring outcomes and measuring results will increase the ability to predict the likelihood of dialysis, and improve the resource planning and allocation for each stage of the CKD continuum.
- Targeted screening is a cost effective way of identifying Patients at risk, moving them towards intervention and follow-up at an earlier and less costly stage. The front end loaded screening costs may have a significant positive impact to the health system longer term in terms of cost avoidance.
- Patient self-management is an achievable goal.
- Internal Leadership is paramount for effective change management - Leadership develops a guiding vision and role models collaboration to engage staff in a positive change experience.