Patient-focused Primary Health Care

Design Guide for Infrastructure
Supporting Collaborative Health Care Teams

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1. Primary Health Care Infrastructure For Nova Scotia

**INTRODUCTION**

This document has been developed at the Nova Scotia Department of Health and Wellness (DHW) to inform the design of Primary Health Care (PHC) infrastructure projects in the province of Nova Scotia. The intent is to guide the development and design of infrastructure that is patient-focused, enhancing access to timely and appropriate care while supporting the primary health care teams. These guidelines are informed by the Collaborative Care Framework for Primary Health Care in Nova Scotia (CCF), Quality Framework for a High Performing Health and Wellness System in Nova Scotia (QF), Canadian Standards Association, the Accreditation Canada Qmentum Program Standards and other credible published studies and papers.

The document has two sections:

Section 1, *Primary Health Care Infrastructure for Nova Scotia*, provides an overview of the CCF and Quality Framework. The design principles and how they relate to PHC are described and basic layout information is introduced. A brief introduction to the business case requirement is also presented. Section 2, *Space Details*, provides a description of the spaces required in a PHC and provides design details on room specifications. Unique details, such as size requirements, special access, and adjacencies for example, can be found under each space heading. This section serves to inform the incorporation of basic elements when assembling schematic drawings and establishes the key foundational elements of PHC infrastructure to support collaborative primary health care teams in delivering primary health care.
1.1 **GUIDING PRINCIPLES AND THE COLLABORATIVE CARE FRAMEWORK**

Primary health care is typically the first point of contact for those seeking health care and provides the basis to address the episodic and ongoing health needs of individuals and communities. Primary health care services:

- Enhance people’s physical, mental, emotional and spiritual well-being across the patients’ lifespan;
- Address the factors which influence health (i.e. determinants of health);
- Encompass health promotion, primary maternity care, acute episodic care, chronic disease prevention and management, rehabilitation and palliative services;
- Are provided by a range of service providers; and
- Are designed and delivered in conjunction with other community service providers and the public.

The Department of Health and Wellness (DHW) provides strategic direction to its partners regarding quality improvement to provide Nova Scotians with primary health care services that align with the Nova Scotia Collaborative Care Framework and the *Quality Framework for a High Performing Health and Wellness System in Nova Scotia*\(^1\). The department works closely with all health care service organizations across the continuum including health authorities, health boards, municipalities, and community-based health care providers and non-profit organizations.

In recent years, primary health care has established capacity and readiness to design a primary health care system that aims to:

- Improve the health of the population;
- Enhance the patient experience of care; and
- Support overall cost reduction or control for the health system\(^2\).

The vision for primary health care is a system and service delivery model that focuses on quality, population health and timely access to health care services. Provincial policy direction for primary health care is focused on collaborative care delivered through inter-disciplinary teams. The goal is to support the improved health of Nova Scotians through a patient-centered primary health care system that engages patients in the management of their own health and maximizes the contributions of all providers and staff.

Strategic priorities include strengthening and expanding access to inter-disciplinary collaborative care teams, enhancing the ability to manage chronic disease in PHC settings and maximizing the use of Electronic Medical Records and health system data. The health needs of the population must be assessed, along with health system and community resources, to develop plans for primary health care teams to support their success. Physical infrastructure is a critical factor in the success of this work.


\(^2\) Adapted from the Institute for Health Care Improvement’s Triple Aim Approach.
Primary health care infrastructure is supported through collaboration with communities, the Department of Health and Wellness, and the health authorities. Infrastructure may be created through new construction initiatives in communities, renovation of existing health care facilities, or renovation of another suitable space.

The *Nova Scotia Collaborative Care Framework* is the policy, funding and accountability platform that will enable achievement of these and other strategic priorities for an optimal primary health care system. The following nine dimensions of primary health care comprise the *NS Collaborative Care Framework*:

- Population-based Programs and Services
- Patient Engagement
- Access to Care
- Promotion of Health & Prevention and Management of Chronic Disease
- Continuity and Coordination of Care
- Optimal Scope of Practice
- Time Dedicated to Team Building and Maintenance
- Optimal Use of Electronic Medical Record
- Quality Improvement and Safety

Collaborative Care includes:

- Organizing and working as a team while effectively utilizing the separate and shared knowledge, skills and interests of patients, providers and office staff.
- Identifying, exploring, managing and/or solving patient and population health concerns, with the best possible participation of the patients, families and communities, to improve health outcomes.
- Recognizing, utilizing and respecting the strengths and integrity of each team member’s approach and contribution to care in collaboration with the patient, develops and utilizes a shared plan of care.
- Establishing consistent approaches to care in collaboration with the patient so that the individual patient’s experience of care is consistent across the team.
- Practicing in a way that optimizes scopes of practice for all team members including office staff and efficiencies in administering and delivering primary health care services.

An interdisciplinary collaborative care team involves different types of primary health care providers who collaborate and share responsibility for comprehensive and continuous primary health care for a practice population. The team consists of family physician(s) and at least one other provider type including, but not limited to, nurse practitioners, family practice nurses, dietitians, social workers, occupational therapists, physiotherapists, and/or community mental health workers. Managers/leaders provide strategic and operational support. Clerical/office staff are considered integral members of the team.
Complementary to this is the provincial *Quality Framework for a High Performing Health and Wellness System* and the associated dimensions of quality which are:

- people centered
- respectful of diversity & equity
- accessible
- seamless
- effective & appropriate
- efficient
- population focused
- supportive of healthy workplace culture

*driven by information*
1.2 Quality and Patient Safety

The importance of a clean, safe environment for all aspects of health care should not be underestimated and as such, should be incorporated into the design of every health care facility. It is essential that health care facilities are designed with appropriate consultation with infection prevention and control professionals, occupational health professionals and patient safety experts to ensure that the design facilitates adherence to best practices.

Design considerations that reflect and facilitate implementation of best practices for infection prevention and control are likely to be successful in preventing transmission of potentially pathogenic microorganisms. Design and workflow are also inextricably connected. Through experiential information and observations, as well as citations in the literature, best practices are more likely to be adhered to, particularly with respect to hand hygiene, cleaning and disinfection, and waste management, when designs take work flow patterns into consideration. The Department of Health and Wellness strongly supports a hub concept for facilities. This concept involves designing spaces that centralize key support spaces (i.e. soiled utility rooms, clean supply, medication preparation) in a central location, easily accessible from direct care areas such as exam rooms.

The Nova Scotia Health Authority/ IWK have well-established infection prevention and control programs. These resources will be made available to PHC Centre project teams during the design and implementation phases and it is important that the design team avail themselves of these subject matter experts starting at the conceptual phase of the project.

Providing a safe space also takes into consideration the traffic patterns and access to the facility. People with limited mobility, sensory impairment, and cognitive challenges will be utilizing these facilities and every effort must be made to ensure ease of access. This includes appropriate lighting and corridor widths as well as wheelchair / bariatric access to exam rooms and washroom facilities.

The following key questions should be considered from an infection prevention and control perspective when designing primary health care spaces:

- Where will reprocessing of reusable medical devices occur including manual pre-cleaning, decontamination and disinfection/ sterilization? This will necessitate consideration of work space and work flow, plumbing, ventilation, and storage.
- What types of health care services will be provided in the centre i.e. specimen collection, wound management, immunization, incision and drainage, suturing, invasive and semi-invasive diagnostic procedures, medication administration? This will necessitate consideration of space, electrical requirements, waste management, refrigeration, ventilation and will also inform decision-making regarding medical device reprocessing needs.
- Are areas for clean supply and soiled utility easily accessible by the care providers? This will necessitate consideration of work flow.
- Have infection prevention and control professionals been included in all the phases of the design, construction and planning?
• What types of technology-driven features will be incorporated into the design and how will this impact adherence to best practices i.e. wireless devices, order/entry devices, electronic health records?
• What is the volume of patients likely to be seen at a given time and are toileting facilities considered adequate and accessible for the mobility-challenged?

1.3 BUSINESS CASE

A business case submission to the Primary Health Care Branch of the Department of Health and Wellness (DHW) is required as a first step toward establishing a project that has Government support to enhance primary health care in Nova Scotia. The business case submission must establish and define the community need and how the proposed operation will support and improve the health and wellness outcomes of the community it serves. The elements of the business case must include:

• A brief project description and rationale
• A description of the geography and population to be served
• Community health demographics
• Proposed PHC governance
• The proposed operational model, identifying annual costs and revenue for a 5 year period
• Existing health human resources and linkages with other provider networks that address the needs within the population, including health zone/health authority support
• Space/Functional Program. Space programs shall assume appropriate net-to-building grossing factors. As a general guideline, a net-to-building gross factor of approximately 1.60 should be assumed, but may vary depending on building scale and project-specific conditions. Area measurements shall be in accordance with CSA 317.11 – Area Measurement for Health Care Facilities (latest edition).
• An order-of-magnitude (Class ‘D’) estimate of the anticipated capital cost, community funding and Government assistance required, the duration of the capital project, and the fiscal years for which funding is being requested.

It is the intent of the DHW to support collaborative practices that are structured to serve the identified health needs of Nova Scotia residents. Outlining the health demographics of the community is required to build a business case. PHC operations must be able to provide same day/next day appointments based on patient need through extended hours and 7 day per week operations.

The governance of the operation must be described in the business case submission as well as how the operational costs, including building overhead, staff, maintaining the cleaning standards, refuse removal, third party support contracts etc., will be covered.

The cost to develop a PHC centre can vary greatly depending on the number of providers and services being offered including existing infrastructure or assets. There are a number of steps required to establish and refine the cost to develop a PHC centre, which occur after a business plan is accepted to substantiate the project. It is required that the NSHA submit a Business Case to DHW for approval. In some cases, design funding may be available to further define the project, including schematic designs, and refine estimates.
1.4 **Design Principles**

Design and construction of health care facilities are guided by evidence-informed and evidence-based literature and key guiding principles. The OASIS (Operations, Access, Safety and security, Infection prevention and control and Sustainable design) Principles for the design of built health care infrastructure highlights the importance of operations, access, safety and security, infection prevention and control and sustainability. These principles shall be applied in the development of a PHC site.

**Operations**

*Outcome: create an environment that is patient focused in the delivery of health care services, supports staff and collaborative inter-disciplinary teams*

The primary health care centre shall include:

- Space and infrastructure that is designed to promote efficiency of operations and clinical functionality so that teams may deliver care safely and effectively (e.g. separate staff and patient streaming, secure patient information, optimized staff work flow, centralized clean and dirty supply areas and communication systems).
- An environment of care for the patient that is sensitive to the needs of individuals and their families and promotes healing and wellness (e.g. good patient flow, appropriate wait times, and information and support for patient and families).
- Clustered spaces for health care providers which provide opportunity for informal meetings, collaboration and educational sessions for team members.
- Sufficient space for learners, visiting specialists, and community-based services and programs which support the operational model (e.g. self-management support sessions, group visits, if supported).
- Secure information technology capabilities that support an electronic medical record system and Tele-health video consultation, teaching and education.

**Access**

*Outcome: identify and mitigate barriers to access ensuring all community residents, visitors and staff are able to access and navigate the facility safely and easily regardless of mobility*

The primary health care centre shall:

- Be located on a site that is accessible to the communities within the catchment area.
- Provide appropriate way-finding approaches including signage.
- Provide grade-level access, accessible parking spots and drop-off areas.
- Ensure accessibility for patients and staff with disabilities and other special needs (e.g. senior-friendly, bariatric accessible) which includes all patient areas of the facility (i.e. reception areas, waiting rooms, corridors, exam areas, and washroom facilities).
- Be serviced by public transit wherever possible.
- Select sites that are in close proximity to other complementary community-based services to promote partnerships between teams and other programs when possible.
**SAFETY AND SECURITY**

*Outcome: ensure the layout of the facility supports the safety and security of patients, providers and staff*

The primary health care centre shall:

- Ensure adequate lighting of exterior, public walks and public parking areas.
- Establish signage to create clear delineation of public access from the outside.
- Ensure the first point of contact is reception with clear sight-lines of all waiting and public areas.
- Provide life safety systems to meet all local codes.
- Design separated staff areas.
- Incorporate interior way-finding to keep patients in patient care areas separate from staff/support spaces.
- Create exam room spaces that support provider safety and emergency egress.
- Create controlled access capability to portions of the facility during afterhours operations or periods of reduced staffing.
- Use similar/same layouts for functionally similar spaces (e.g. all exam rooms) to improve efficiency of operations and minimize potential for errors. Mirrored layouts should be considered for efficiency of plumbing and services, but designs should strive to minimize other differences wherever possible.

**INFECTION PREVENTION AND CONTROL**

*Outcome: ensure the layout supports implementation of best practices for infection prevention and control to mitigate the risk of transmission of infection in the primary health care setting*

To facilitate adherence to best practices for infection prevention and control, the primary health care centre shall:

- Ensure that the quality and design of finishes and fittings will enable frequent cleaning and disinfection, functionality, and preventative maintenance to occur. Surfaces and equipment must be compatible with and able to withstand hospital-grade disinfectants.
- Ensure spatial separation capability for potentially communicable patients and clients both during normal periods of communicable disease activity as well as during outbreaks and pandemics (inadequate source control measures such as spatial separation between infected source and susceptible host results in a higher risk of transmission).
- Ensure clean and dirty utility rooms are centrally located in the care delivery area. Centralizing the location of these areas ensures that they can be easily accessed from all care areas (hub concept).
- Ensure access to dedicated hand hygiene sinks in all exam rooms, clinical spaces and in reprocessing areas.
- Assess key operational issues in the context of the Infection Prevention and Control resources available within the facility and nearby (e.g. use of privacy curtains vs. ability to properly launder them, disposable vs. reusable supplies/linens, etc.) and implement decisions/processes suitable to the project constraints.
Ensure the building is designed, constructed/renovated and maintained in accordance with CSA Z317.13 (latest ed.), including ensuring that consultants, contractors and trades are qualified and knowledgeable in the unique factors of health care facilities projects.

**Sustainable Design**

*Outcome: ensure site selection, configuration, equipment and systems selection support best practices for energy efficiency and environmentally-sustainable design*

The planning and design of a PHC centre must consider sustainability in the design and construction as well as the ongoing operation of the facility. New construction shall be built to meet the standard of a structured green building system. Where possible, this goal must be considered in renovation, addition and leasehold fix-ups. This outcome should be considered by the stakeholders and design team when deciding the following:

- Minimizing the functional area of the building.
- Appropriate site selection which affords opportunities for mass or alternate transportation, renewable energy sources and maximizing natural lighting opportunities.
- Building envelope design.
- Selection of equipment and fixtures to offer the best occupant comfort and patient safety with minimized energy usage, particularly heating, lighting and ventilation systems.
- Selection of building professionals qualified in green building construction.
1.5 Building Configuration

Outcome: develop a facility that is patient focused in the delivery of health care services, supports staff and promotes collaboration within interdisciplinary teams

The building configuration, whether referring to the layout on the lot, or the interior layout, is essential to supporting the outcomes of the PHC centre. Generally, the total area required to support the PHC centre is dependant on the number of providers and other facility, operational and program specific factors. The design team and stakeholders shall satisfy the following when determining the building configuration:

- Drop-off areas and appropriate access to main entrance area.
- Public entrance systems shall be barrier free to all persons.
- Reception shall be first point of contact from the main entrance.
- Waiting areas and main entrances shall be visible from reception.
- Waiting areas shall be able to be spatially separated during periods of peak respiratory illness or pandemic situations.
- Public, exam and provider areas shall be separate
- Spaces such as soiled and clean utility rooms, medication preparation space and a patient washroom should be conveniently located in proximity to the exam spaces.
- Provider spaces shall be clustered with areas to support collaboration.
- Discreet meeting spaces should be considered for staff and provider meetings, training opportunities, and patient education.
- Access to mechanical and service areas should be separate from public, patient care and provider spaces.

Refer to Appendix 3.1 for examples of the application of these outcomes to two PHC clinic layouts.
Fig 1.5.1 – Example of building layout meeting separated areas outcome (see also Appendix 3.1)
1.6 BUILDING SYSTEMS AND COMPONENTS

**Outcome: ensure the building systems and components for PHC Centers are built to meet the Requirements of the Nova Scotia Building Code Regulations, and applicable healthcare-related CSA Standards (latest editions)**

The building mechanical and electrical systems will meet the requirements to deliver the primary care and program services while maintaining environmentally sustainable and energy efficient design. Typically, PHC centres will be fully occupied 12 – 16 hours per day. Occupants’ comfort, air quality, lighting requirements and temperature controls should be considered for this occupant load. Structured cabling and IT support systems must be adequate for operational and Electronic Medical Record (EMR) requirements.

The building systems and components for PHC Centers will typically be built to meet a Group D occupancy, as defined under the National Building Code of Canada (NBCC), 2010, and ‘Class C HCF’ per CSA Standards. Specific HVAC requirements include temperature and humidity control, air changes and pressure differentiation. Depending on the operations, specific requirements for specialized spaces such as procedure rooms, mini labs, etc. may be required.

Cleanliness is extremely important in health care facilities. All building systems and components should be selected to enable and maintain a high standard of cleanliness. This includes ease of cleaning/maintenance and not supporting the growth of microorganisms. Ease of operations of PHC Centres will be essential to efficient operations. Consideration shall be given to the balance between automation/highly-complex systems and ease of operations, maintenance and repair of the facility, given the anticipated resources available to operate, maintain and repair these systems. Consideration of operating costs (including personnel and contracts) shall be given when considering options for building systems.

Passive safety and security strategies (e.g. Crime Prevention Through Environmental Design or CPTED) should be implemented within the design of PHC facilities. Consideration should also be given to the requirements for security systems, duress alarms and other security/safety measures that may be required for the safe operation (including safety of patients and staff) of these facilities.
2. Space Details – General Requirements

Outcome: provide details of specific spaces within the PHC facility to best enable safe and efficient delivery of Primary Health Care and Chronic Disease Management in a collaborative setting.

2.0.1 Doors/ Windows
Entrance systems shall be at grade level, clearly visible from the parking and entrance walkways and lead directly to, or be within sightlines, of reception. Exterior entrance systems shall meet barrier free requirements including automatic door openers. Entrance systems shall include heated vestibules. Consideration shall be given to access control strategies for safety and security while preserving an accessible and welcoming environment.

Interior doors in the patient areas must be a minimum of 915mm (36 in) wide, shall meet barrier-free standards, be positive-latching and have a minimum sound transmission rating of 28-30. Other sound transmission ratings may be required to meet specific regulations depending on use, location or building layout/ assemblies. Specific door hardware in secure areas may be required, depending on operational requirements (e.g. medication storage must self-close, latch and lock).

Large exam rooms, as described herein, and patient washrooms shall have a minimum 1067 mm (42 in) wide door for enhanced access. Doors in patient corridors shall maximize opening width while maintaining barrier-free accessibility. Use of multi-leaf doors and hardware such as hold open devices should be considered to reduce barriers to access while providing the ability to control access to restricted and semi-restricted areas of the facility.

2.0.2 Corridors
Corridors shall provide a clear and intuitive path of travel to and from all patient areas. Use of long dead end corridors is not permitted. Corridors must be laid out to support persons with mobility issues, use of mobility devices and visual impairments. Installation of non-porous handrails is required. Corridor widths of 1830mm (6 ft) are recommended in patient-accessed areas.

2.0.3 Acoustical Separation and Control
All exam spaces in the patient care area, corridor walls, washrooms and meeting rooms shall have a minimum sound transmission class rating (STC) of 45. Meeting rooms shall have a min. STC of 50 if located adjacent to waiting areas or patient care (e.g. exam room) spaces. Mechanical spaces require STC of 55 if ventilation units and pumps are present. All other areas will have an STC of 40 with the exception of file storage, housekeeping, utility rooms, storage rooms and general offices which have no specific requirement. Noise minimization shall be achieved through the provision of finishes that reduce reflected noise and increase sound absorption.

Walls with STC 45 or higher shall extend full height (i.e. to underside of floor/roof structure above) or have drywall ceilings. Where this is not possible, the design shall extend partitions slightly above the suspended ceiling and maximize the separation between return air openings. Ceiling boards with a minimum ceiling attenuation class (CAC) rating of 40 and a minimum noise reduction coefficient (NRC) of 0.55 shall be used.
Ceilings in large open spaces (e.g. waiting/registration, large meeting rooms, and collaborative team work areas) shall have a min. NRC of 0.70. Other acoustic control measures (e.g. varying surface planes, acoustical panels, etc.) should also be considered in conjunction with the IPAC factors associated with these options.

2.0.4 Flooring
Flooring shall be seamless, resilient sheet flooring with flash coving in the following areas: exam spaces, medication preparation areas, washrooms, soiled and clean utility rooms and janitorial spaces. All other flooring must be durable and easily cleaned and maintained. Anti-slip flooring may be considered in any or all high-traffic or potentially wet areas, however, the extent of anti-slip must be considered against the cleanability of the surface, which will take precedence.

Carpet is not permitted in any areas.

2.0.5 Finishes
Care must be made in selecting finishes in all patient areas, medication preparation, and soiled and clean utility spaces. Finishes must be able to withstand frequent cleaning/disinfection with various hospital-grade cleaning chemistries. This must be considered when selecting wall coatings, millwork, flooring, furniture and backsplashes. In clinical areas including medication preparation or reprocessing, seamless countertops and solid plastic edge banding on millwork cabinetry is required.

2.0.6 Equipment and Furnishings
Equipment should be able to withstand frequent cleaning/disinfection with various hospital-grade cleaning chemistries and materials must be compatible with detergents and disinfectants to be used in the facility. Equipment must be non-porous and smooth and all surfaces of the equipment must be accessible for cleaning and/or disinfection.

Furnishings in all patient care areas should be seamless to the best extent possible or have double-stitched seams, and be mold resistant, quick-drying, fluid-resistant, non-porous, and non-textured.

Ceiling lifts in exam spaces are not required, however consideration should be given to provide sufficient infrastructure in an exam space to accommodate the bariatric population or persons with limited mobility. Hi-low exam tables, as well as larger exam tables, are required in specific exam spaces.

2.0.7 Hand Hygiene Sinks (see Appendix 3.3)
Hand hygiene sinks must be free-standing, made of non-porous material with no under-sink storage. They are not to be inserted in or immediately adjacent to a counter. Ideally, sinks should be located at least one metre (three feet) from patients, clean supplies and adjacent counters. Sinks can be located within this distance to a counter provided an adequate, non-porous splash-guard is installed.

The design of hand hygiene sinks (e.g. depth, position of drain) should prevent splash back that may contaminate hands or faucets. The water stream should not be directed straight into the drain. The following criteria should be incorporated into the design:

- Provision of a solid surfaced, cleanable backsplash that extends 60 cm above sink level and 5 cm below sink level. Backsplashes must be seam-free, non-porous and non-textured. All edges must be
sealed with a waterproof barrier. Backsplashes must include the area under the paper towel dispenser and soap dispenser as well.

- Hand hygiene sinks shall be supplied with a non-refillable soap dispenser, single-use towel dispenser and a hands-free waste receptacle

In addition to sink requirements, alcohol-based hand rub (ABHR) dispensers shall be installed at the appropriate points of care. The location(s) should be determined in accordance with expected work flow patterns. Access to ABHR in waiting areas should be considered, taking into account the patient population.

2.0.8 Communications

Provide wired systems for voice (telephone) and data (high-speed internet) in all exam rooms, staff and provider areas. IT decisions and policies (including wireless device support) shall be made in consultation with the relevant health authority.
2.1 STANDARD EXAM SPACE

Outcome: provide generic exam spaces which support a collaborative team environment, patient safety, confidentiality and quality of care to optimize operational efficiencies and patient experience

2.1.1 Size/ Configuration
Each standard exam space shall be between 100 – 130 nsf including space required for exam table, millwork, and a dedicated hand hygiene sink. Standard exam spaces shall be generic in their layout, be available to any provider, and in combination with other exam spaces, be sufficient in quantity to support the number of providers. Exam rooms shall be configured such that provider safety is protected, i.e. providers be positioned so that they are closer to the exam room exits than patients. Exam tables shall be positioned to maximize patient privacy and transfers from wheelchairs, stretchers, etc. (see Fig 2.1.1 below).

Other types of exam spaces shall be required as part of the PHC, as outlined in Section 2.2. Exam spaces and patient care areas shall be clustered, and separate from dedicated provider or staff areas including washrooms, kitchen/lounge areas, and offices.

2.1.2 Clearances
Suitable clearances must be provided for sitting spaces, hand hygiene sinks, and millwork. All exam room spaces are to meet barrier- free standards including a 1500mm (5’) turning circle. Exam space layout must provide sufficient area for consultation between provider and patient in a way that the EMR can be easily reviewed.

2.1.3 Adjacencies
Exam rooms shall be adjacent to support spaces including:

- Clean and soiled utility rooms
- Medication preparation areas
- Barrier- free patient washroom
- Other exam spaces

2.1.4 Shared Spaces
Exam rooms shall be generic and available to all providers, with generic layouts, furniture and millwork to facilitate ease of use. Other exam spaces developed for family consults, bariatric patients, learning spaces or telehealth exams shall be developed with this same intent.

2.1.5 Doors/Hardware
Doors for exam spaces shall provide appropriate acoustic separation and be equipped with acoustic seals. Door swings should be positioned to protect views of the exam table area, reducing the need for privacy curtains. In deference to patient and staff safety, exam doors should not have locking hardware. Door markers or signage to indicate if a space is occupied is required.

2.1.6 Equipment and Furnishings
Each exam room shall be equipped with:
• Exam table fully equipped with wall mounted scopes and light.
• Seating for the patient, provider and at least 1 other occupant.
• Workstation/Millwork to enhance EMR review between patient and provider.
• Sufficient storage to hold equipment and supplies for one day’s worth of full operations—to reduce clutter and improve efficiency and cleaning.
• Dedicated hand hygiene sinks
• ABHR dispensers located at point of care and other locations determined by workflow.
• If necessary, privacy curtains for exam tables may be considered, ensuring adequate supply to accommodate curtain changes when visibly soiled and in view of routine laundering schedules. It is recommended that curtain selection take into consideration those styles that offer non-porous edging.
• Adequate space for a wall-mounted secure sharps containers, space for Personal Protective Equipment (PPE) supplies, space for a soiled linen hamper, and a hands-free waste receptacle.
• Grab bars at the exam table should be considered. Ensure grab bars are securely fastened and supported within the wall assembly.
• Sufficient and appropriate lighting to perform patient examination. Consideration should be given to multi-level lighting to support examination while having lower light levels for consultation and assessment.

Fig. 2.1.1 – Standard Exam Space Example and Outcomes
2.2 LARGE EXAM SPACE

Outcome
Providing exam spaces which accommodate needs beyond the standard exam space to ensure comprehensive primary health care services are available to a diverse population

In addition to standard exam spaces, additional exam spaces are required for family consultation, access for bariatric patients, visiting specialists, student providers, assessment spaces, and tele-health visits.

The quantity of large exam spaces is dependent on the provider mix, population, teaching opportunities and operational considerations. It would be expected that a minimum of two large exam spaces would be required to meet this outcome. These exam spaces shall be developed with a generic exam room model to accommodate diverse functionality for all providers.

2.2.1 Size/ Configuration
A mix of oversized exam spaces to accommodate the diverse needs of a community population is required. Typically, a minimum of two large exam spaces should be considered. These spaces may range from 135 - 160 nsf, depending on use. Each exam/treatment space shall be sized to accommodate an appropriate exam table, millwork, additional seating, and dedicated hand hygiene sink (see Figures 2.2.1 and 2.2.2).

2.2.2 Clearances
Suitable clearances must be provided to seating spaces, hand hygiene sinks and millwork. All exam room spaces are to meet barrier-free standards. For increased accessibility in larger exam spaces, a minimum 1067 mm door opening (42 in), and a 1830mm (6’) turning radius should be accommodated. Exam space layout should provide for sufficient area for consultation between provider and patient in a way that the EMR information can be reviewed.

2.2.3 Adjacencies
Exam rooms shall be adjacent to support spaces including:

- Clean and soiled utility rooms.
- Medication preparation areas.
- Barrier-free patient washroom.
- Other exam spaces.

2.2.4 Shared Spaces
Exam rooms shall be generic and available to all providers, with generic layouts, furniture and millwork to facilitate ease of use. Larger exam spaces developed for family consults, bariatric patients, learning spaces or tele-health exams shall be developed with this same intent.
2.2.5 Doors/Hardware
Large exam space doors shall be 1065 mm (42” wide). Door hardware requirements are as stated for standard exam room doors, but consideration for a continuous hinge or floor pivots should be given to accommodate the larger door size.

2.2.6 Equipment and Furnishings
Exam rooms shall be equipped with all the furnishings and equipment of the standard exam space, including the following:
- Additional seating/consult space, including being able to accommodate 4 patients with 2 bariatric seats.
- Hi-lo exam tables with bariatric capacities.

Fig. 2.2.1 — Large Exam Space and Outcomes - Example 1

**Large Exam Space**
Family consults, bariatric, tele-health, teaching, etc.

**OUTCOMES:**
- Maintain barrier-free access (6’ turning circle)
- Freestanding dedicated hand hygiene sink accessible near point of care with 1m clearance from counters or fitted with a splash shield
- ABHR at point of care
- Provider station closer to door for safety
- Exam table positioned to maximize patient privacy
- Door swing aligned for sharing info/ emr with patients
- Provider station aligned for sharing info/emr with patients
- Wall mount equipment such that provider does not reach over patient to access
- Provide grab bar at exam table
- Seating for 4 occupants (min)
- Optimized storage
Fig. 2.2.2 – Large Exam Space and Outcomes - Example 2

Large Exam Space
Family consults, bariatric, tele-health, teaching, etc.

OUTCOMES:
- Maintain barrier-free access (6’ turning circle)
- Freestanding dedicated hand hygiene sink accessible near point of care with 1m clearance from counters or fitted with a splash shield
- ABHR at point of care
- Provider station closer to door for safety
- Exam table positioned to maximize patient privacy
- Door swing aligned for sharing info/err with patients
- Wall mount equipment such that provider does not reach over patient to access
- 3 sided access to exam table (option)
- Seating for 4 occupants (min)
- Optimized storage
2.3 **Assessment Space**

*Outcome*

*Provide exam spaces which support specific primary health care delivery needs allowing the primary Health Care Team to provide services in an efficient, safe and patient centered space*

Consideration should be given to exam spaces for group assessments/care. The need for these spaces will be dependent upon: 1) practice population; 2) availability of space; and 3) provider competencies. To optimize the use of these spaces, consideration of multi-purpose functions and type and configuration of equipment and furnishings will be required. If required, video conferencing capabilities should be located in these spaces. These spaces should be available to all providers and booked accordingly and should be considered and available as a typical large exam room if not being utilized otherwise.

This space shall be appropriate for assessment when the size of the group of providers/learners and/or patients/social supports is larger than can be accommodated in a typical exam room space. Some potential scenarios include visiting specialists/shared care, small group patient teaching and family case conferences.

2.3.1 **Size/ Configuration**

Size of assessment rooms shall be, at a minimum, the size of a large exam room. This shall be determined based on the nature and frequency of activities anticipated. Assessment Room space shall be sized to accommodate an appropriate exam/procedure table, millwork, additional seating, and dedicated hand hygiene sink. Space for consultation may be the priority. Scales and other assessment equipment may be required.

2.3.2 **Clearances**

Suitable clearances must be provided to seating spaces, hand hygiene sinks and millwork. All exam room spaces are to meet barrier-free standards. For increased accessibility to larger exam spaces a min. 1067 mm door opening (42 in), and a 6’ turning radius should be accommodated. Exam space layout should provide for sufficient area for consultation between provider and patient in a way that the EMR information can be reviewed.

2.3.3 **Adjacencies**

Adjacencies should be the same as Exam spaces. Exam rooms shall be adjacent to support spaces including:

- Clean and soiled utility rooms
- Medication preparation areas
- Barrier-free patient washroom
- Other exam spaces

2.3.4 **Shared Spaces**

These spaces may require specific considerations around layout, furniture and equipment. These spaces must be able to be used as large exam rooms when not utilized for a specified purpose. Utilization could
include family consults, space for examination of mobility challenged patients, learning spaces, space for visiting specialists or tele-health exams.

2.3.5 Equipment and Furnishings
The exam rooms shall be equipped with all the furnishings and equipment of the standard exam space, including the following:

- Additional seating/consult space, including a minimum of 4 patient spaces and 2 bariatric seats.
- Hi-lo exam/procedure tables with bariatric capacities.
- Scale, additional millwork for information and/or teaching aids, as required.
- Video conferencing capabilities and/or telehealth.
2.4 MINOR PROCEDURE SPACE

Outcome:
Provide exam spaces which support specific primary health care delivery needs allowing the primary Health Care Team to provide services in an efficient, safe and patient centered space

The need for these spaces will be dependent upon: 1) practice population; 2) availability of space; and 3) provider competencies. To optimize the use of these spaces, consideration of multi-purpose functions and type and configuration of equipment and furnishings will be required. If required, video conferencing capabilities should be located in these spaces. These spaces should be available to all providers and booked accordingly and should be considered and available as a typical large exam room if not being utilized otherwise. This space is not appropriate for conducting minor procedures that require preparation and recovery. The types of procedures conducted in this space should not require special HVAC capability.

2.4.1 Size/ Configuration
Size of minor procedure rooms shall be at a minimum the size of a large exam room, but shall be determined based on the nature and frequency of procedures/activities anticipated. Additional space may be required for storage of sterile supplies/instruments/sutures, mobile/overhead lights, clearance around a centralized exam/procedure table, space for tray carts, and additional/special millwork. The ceiling height shall accommodate the required lighting and equipment. Procedure rooms shall be laid out in a way that supports a separation of clean/sterile and soiled materials.

2.4.2 Clearances
Suitable clearances must be provided to procedure tables, hand hygiene sinks and millwork. All exam room spaces are to meet barrier-free standards. For increased accessibility to larger exam spaces a min. 1067 mm door opening (42 in), and a 6’ turning radius should be accommodated. Exam space layout should provide for sufficient area for consultation between provider and patient in a way that the EMR information can be reviewed. Consultation space within the minor procedure space shall be adequately separated from the procedure area to suit procedure functions and infection control practices.

2.4.3 Adjacencies
Adjacencies should be the same as Exam spaces. Exam rooms shall be adjacent to support spaces including:

- Clean and soiled utility rooms
- Medication preparation areas
- Barrier-free patient washroom
- Other exam spaces

2.4.4 Shared Spaces
These spaces may require specific considerations around layout, furniture and equipment. These spaces must be able to be used as large exam rooms when not utilized for a specified purpose.
2.4.5 Equipment and Furnishings

The exam rooms shall be equipped with all the furnishings and equipment of the standard exam space, including the following:

- Hi-lo exam/procedure tables with bariatric capacities.
- Mobile overhead light, additional millwork, additional storage, privacy curtains, carts, stands, etc.
- Video conferencing capabilities and/or telehealth.
2.5 **COLLABORATIVE TEAM SPACE**

*Outcome: provide adequate space for providers to conduct private and confidential affairs that do not require patient presence while providing opportunities for team interaction and collaboration*

2.5.1 **Size/ Configuration**
Collaborative team space is to be clustered and separate from the patient care area to promote interaction and collaboration. Non-structured space provides the greatest opportunity to meet the outcome, utilizing lounge and cubicle settings in lieu of dedicated office spaces. Dedicated offices are not recommended. Provider space should range from 70 – 100 nsf per provider. If unstructured space is utilized, access to small meeting space in this area is required to facilitate discrete/ operational needs where privacy is required. In this area, swing space must be considered to accommodate visiting colleagues and partners, such as providers, health authority staff and students.

2.5.2 **Clearances**
Each provider must have opportunity to work independently in the provider space and adequate clearances must be provided.

2.5.3 **Adjacencies**
- Provider spaces should be co-located to facilitate collaboration.
- Student and/or visiting provider space must be available in this area.
- Small private meeting area should be available.
- Staff washroom facilities.
- Other staff space such as break rooms, showers, staff meeting areas, business offices, may be adjacent.

2.5.4 **Shared Spaces**
Generic spaces which can be shared amongst providers is encouraged.

2.5.5 **Equipment and Furnishings**
Provider support space must contain all the furniture required to be able to work efficiently. Voice and data infrastructure must be sufficient to support the number of providers who will be working in the space. Small meeting rooms(s) require all the IT infrastructure of the work station area to allow it to multifunction as a working space, but should also accommodate videoconferencing/telehealth.

2.5.6 **Finishes**
Material selection and furnishings shall carefully consider acoustical performance, including:
- Minimum STC of 45 for walls
- Min. NRC of 0.55 for ceilings, but 0.70 if a large open-concept work space for several providers
- Other sound absorptive materials to control reverberation within the work area
- Height of cubicle partitions to provide privacy and separation between provider work spaces
2.6 RECEPTION AND WAITING

**Outcome:** provide an accessible and clear first point of contact for all visitors, for discrete interaction with reception services and a safe waiting space for patients

2.6.1 Size/ Configuration
The reception area must be the first point of contact for all visitors to the PHC centre. The reception area must be visible from the main entrance of the facility and all persons entering the facility must be able to immediately identify the reception area. Access to reception must be barrier-free, and user-friendly to those with mobility challenges. Reception must have clear site lines to the PHC Centre entrance and all waiting areas.

The reception area must be of sufficient size to house any necessary business functions, personnel or equipment as required. Reception staff must have egress in two separate directions for safety. Reception will require sufficient space for file storage, business machines, and space to perform related duties separate from the public.

The waiting area shall be sized based on the number of providers practicing/programs offered on a typical day. The total area is typically between 50 – 100 nsf per provider, depending on layout, community factors and anticipated volume fluctuations. Waiting areas shall be spatially divisible so that the streaming of infectious patients can be achieved during periods of increased levels of respiratory illness, or as part of pandemic/emergency planning.

2.6.2 Clearances
In the waiting room, there shall be the ability to:

- Provide a 2 meter separation between symptomatic and non-symptomatic (actual or suspect respiratory illnesses) patients through spatial separation or partitions.
- Admit patients directly into exam room if suspicious for a communicable illness.
- Arrange seating so that patients are facing away from each other (back-to-back seating).

2.6.3 Adjacencies
The main entrance, reception and waiting areas must be immediately adjacent to each other. A barrier-free public washroom is required adjacent to the waiting area. Access to the patient care area shall be immediately apparent and accessible from the waiting area.

2.6.4 Equipment and Furnishings
The amount of seating required will be determined by the number of providers, community factors and anticipated wait times. In general, 4 – 6 seats per provider (or 50 – 100 nsf/provider) shall be supported for patients and families. Waiting room spaces must include some seating appropriate for bariatric patients, and be able to accommodate wheelchair patients.

Equipment and furniture should be able to withstand frequent cleaning/disinfection with various hospital-grade cleaning chemistries and materials must be compatible with detergents and disinfectants to be used in the facility. Furnishings must be non-porous and smooth and all surfaces must be accessible for cleaning and/or disinfection. As well, furnishings should be seamless to the best extent...
possible or have double-stitched seams, be mold resistant, quick-drying, and fluid-resistant. Approval of these finishes by an infection prevention and control specialist is recommended.

Millwork and/or furnishings shall be selected to minimize the distance between the reception staff and patients to ensure safe and discrete communication at the check-in area. The use of barriers such as sliding windows to provide staff safety are permitted, provided they do not impede or prevent the communication outcome.

2.6.5 Finishes
Care must be made in selecting finishes in waiting rooms that are durable, and cleanable. This must be considered when selecting wall coatings, millwork, flooring, furniture and window treatments. The design and finishes shall consider acoustical issues, including:

- Separation between patients at registration, if multiple concurrent registration stations are provided.
- Reverberation control within the waiting and reception areas to maximize speech intelligibility and minimize the ability for reception discussions to be heard in the waiting areas.
- Potential use of ambient (music/television) or white noise to enhance speech privacy
- Careful location of child play areas (if provided) within the waiting room

2.6.6 Communications
Consideration should be given to support electronic devices for advertising and information or entertainment for children. Televisions or electronic displays should be ceiling or wall mounted outside of typical reach of people in the waiting room.
2.7 **Medication Storage/Prep Space**

*Outcome: provide sufficient and secure storage for all medicine, supplies and a medication preparation area that supports good infection prevention and control practices*

### 2.7.1 Size/ Configuration

This space should be designed with sufficient size and millwork to meet the needs of the PHC centre operation and include space for secured medication storage. A dedicated hand hygiene sink is required. Depending on clinical functions, a separate dedicated prep sink may also be required.

### 2.7.2 Clearances

Certain medications require special locking cabinets, refrigeration, or other requirements, and clearances required for access should be considered.

### 2.7.3 Adjacencies

The medication prep space shall be in the patient care area and accessible to care providers. Increased efficiencies can be realized if the clean utility, soiled utility, and med prep areas are clustered in a centrally located Hub.

### 2.7.4 Shared Spaces

Medication prep space must be a dedicated single purpose space.

### 2.7.5 Doors and Hardware

Medication rooms shall be equipped with door hardware that automatically closes and locks. Card readers can be considered for hands-free access.

### 2.7.6 Equipment and Furnishings

The millwork in this space shall have specific operational requirements, such as special/double locking cabinets for certain medications, locking medication fridge, and/or other requirements. Consultation to determine specific operational requirements is required. Medication fridges may require a data logger or alarm to alert staff to a failure to maintain temperature requirements – requirements may vary depending on the nature, quantity and value of the medications being stored.

Equipment should be able to withstand frequent cleaning/disinfection with various hospital-grade cleaning chemistries and materials must be compatible with detergents and disinfectants to be used in the facility. Equipment must be non-porous and smooth and all surfaces must be accessible for cleaning and/or disinfection.
2.8 **Clean Utility Space**

*Outcome: provide easily accessible storage for clean supplies with sufficient capacity to maintain operations*

2.8.1 **Size/ Configuration**

This space should be designed with sufficient size and millwork to meet the needs of the operation and include space for clean medical supplies, clean linens, exam room supplies and clean reusable equipment storage.

An exterior window into this space should be avoided. If unavoidable, storage should be away from the window, due to the risk of condensation. Storage of equipment and supplies shall not be exposed to direct airflow from the HVAC system.

The space requirements and layout shall take into account operational processes required for receiving and unboxing/decasing bulk supplies. If these operations will take place within the Clean Utility space, the layout shall allow for this to be done in a designated area separate from unboxed clean/sterile supplies. Adequate space must be provided for storage of packaging waste (e.g. cardboard) prior to disposal.

A hand hygiene sink is required if any clean workroom functions will be performed within the room (e.g. procedure tray prep). If the room will only be used for storage of supplies, no hand hygiene sink is required.

2.8.2 **Clearances**

Good access to supplies will be required and storage must be protected from dust and moisture and be located off the floor. Mobile shelving/wire racks should be considered to facilitate cleaning under and behind storage units.

2.8.3 **Adjacencies**

Clean Utility shall be in the patient care area and accessible to all care providers. Increased efficiencies can be realized if the clean utility, soiled utility, and medication preparation/storage areas are clustered in a centrally located Hub.

2.8.4 **Doors and Hardware**

Clean Utility rooms may require door locking hardware depending on operations and location.
2.9 **SOILED UTILITY SPACE**

**Outcome:** provide a safe and efficient space to store bio-medical waste, soiled medical equipment, soiled linens, and support reprocessing of reusable medical equipment if required

2.9.1 **Size/ Configuration**

This space should be designed with sufficient size and millwork to meet the needs of the operation. Typically 80 - 130 nsf may be required depending on the extent of reprocessing necessary and access to disposal services. For those sites where reprocessing will take place, adequate space must allow for reprocessing work to flow from dirty to clean.

Adequate space must be provided for management of the waste stream within the PHC. Careful consideration should be given to how waste collection and disposal will be managed, in line with municipal and health authority waste management resources available in to the PHC facility. These issued may have significant impact on the size required for the Soiled Utility room.

2.9.2 **Clearances**

Good access to work surfaces is required. Access to sufficient storage must be considered. A dedicated hand hygiene sink is required in this area.

2.9.3 **Adjacencies**

Soiled Utility shall be in the patient care area and accessible to all care providers. Increased efficiencies can be realized if the clean utility, soiled utility and medication preparation/storage are clustered in a centrally located Hub.

2.9.4 **Shared Space**

If there will be medical equipment reprocessing performed on site, it must occur in a purpose built space, or special requirements for the soiled utility space will need to be determined and implemented, depending on the reprocessing being performed.

2.9.5 **Doors/Hardware**

Soiled Utility space must have easy access. Automatic locking hardware is not permitted, but the door shall close automatically. The ability to secure space at times or afterhours may be required. Door hardware should allow the door to be opened from the corridor without the use of hands (e.g. panic set, paddle operator, etc.)

2.9.6 **Equipment**

If reprocessing (high level disinfection and/or sterilization) will be occurring in this room, one way air flow, adequate space for reprocessing equipment (autoclave, ultrasonic washers), utility sink, dedicated hand hygiene sink, and splash protections must be incorporated into the design and infrastructure. This space must be under negative pressure in all instances. An eyewash station may be required depending on chemicals in use.

Equipment/surfaces should be able to withstand frequent cleaning/disinfection with various hospital-grade cleaning chemistries and materials must be compatible with detergents and disinfectants to be used in the facility. Equipment must be non-porous and smooth and all surfaces of the equipment must be accessible for cleaning and/or disinfection.
2.9.7 Finishes
Flooring should be slip-resistant seamless sheet flooring with integral cove base. Non-porous, abuse resistant wall protection should be considered for ease of cleaning/disinfection and to resist damage from carts, hampers, waste bins, etc.
2.10 Washrooms

Outcome: provide accessible washroom facilities for reception/waiting, staff, and patient care areas

2.10.1 Size/ Configuration
All washrooms shall be gender non-specific and barrier free. Washrooms should be bariatric friendly, but not at the expense of barrier-free design when the requirements conflict with each other. Patient/public washrooms shall be provided with min. 1,067 mm (42 in) door openings, and must have 1828 mm (6 ft) turning circles for larger mobility devices. The same considerations may apply to staff washrooms, depending on layout and operational requirements of the facility.

2.10.2 Adjacencies
Washroom facilities are required adjacent the waiting room and within exam room areas. Staff washroom facilities are required adjacent to staff/provider spaces depending on operations.

2.9.3 Shared Space
If a shower will be provided for staff to encourage health promotion and active transportation, consider locating it separate from the staff washroom. If a shower is located within staff washrooms, adequate space and privacy must be considered in the design.

2.10.4 Doors/Hardware
Washrooms must have privacy locks, with the ability to secure from the inside, but able to be opened from the outside in case of an emergency. Washroom doors should swing out, if doing so will not pose a hazard or restrict corridor width.

2.10.5 Equipment and Furnishings
All washrooms shall be equipped with a wall-mounted hand hygiene sink, soap and paper towel dispenser, mirror and sufficient grab-bars to meet barrier-free standards. Space for specimen collection tables shall be outside the patient care area washrooms. A baby change table should be provided in one publically-accessible washroom, likely off the waiting room.

Consideration should be given for hands-free toilets and faucets in staff washrooms.
2.11 **Staff Space**

*Outcome: provide adequate space and equipment to provide breaks and meals away from the work area*

2.11.1 **Size/ Configuration**

The size of the staff area depends on the number of providers and support staff. It must be adequately sized to house the necessary equipment for food storage and preparation, handwashing, and seating for a portion of the staff at any time. Consideration should be given for access to the outdoors directly from this space.

2.11.2 **Clearances**

Staff spaces are to have barrier-free access.

2.11.3 **Adjacencies**

Staff areas should be adjacent to other staff facilities such as a staff washroom. The staff room should be separate from patient and public areas. Adjacencies to provider space, business offices and meeting areas should be considered.

2.11.4 **Shared Space**

The staff room may be of sufficient size and layout to provide for an informal meeting space as well as a break space.

2.11.5 **Equipment and Furnishings**

Staff rooms shall be furnished with a sink, refrigerator and microwave with permanently installed paper towel and hand soap dispensers.
2.12 BUSINESS OFFICE

**Outcome:** provide a suitable space for the safe and efficient delivery of business and management operations of the facility. To ensure business offices provide for the safe storage of confidential and private documents.

### 2.12.1 Size/ Configuration

The Business Office(s) must provide sufficient secure space to effectively manage the staff, provider and business operations. This may require space for business equipment and/or secure file storage. A secure business office is typically 100 – 140 nsf, but may vary depending on usage, location, or if there are multiple occupants. Depending on the size of the operation and number of staff, more than one business office may be required.

### 2.12.2 Adjacencies

The business office should typically be located near non-patient care areas, although one office near staff spaces or reception area may be beneficial. Some business functions may be performed within the reception area as well.

### 2.12.3 Shared Space

There may be a variety of business services being offered and the sharing of space is recommended where appropriate, while maintaining security and privacy.

### 2.12.4 Doors/Hardware

Business office spaces shall be equipped with locking hardware to restrict access.

### 2.12.5 Equipment and Furnishings

The business office will have equipment requirements which must be understood and considered when providing phone, electrical and data infrastructure. In some instances, a small meeting table or additional seating for discrete staff management may be required.
2.13 Program Space

Outcome: provide sufficient and suitable program space depending on operational support and community needs while maintaining a minimized footprint

When developing PHC infrastructure, community needs and requirements for space other than exam space must be considered. Program spaces may include space for services that are appropriate for the demographics and health status of the community. This may include space to accommodate visiting specialists, education programming, or physical therapies.

A meeting space that would be accessible to the patients and staff is recommended for health related meetings and educational opportunities. Generic spaces which can be utilized by a variety of services should be considered. The specific need for program space must be clearly understood and identified in the business case submission.
2.14 **Housekeeping Room**

*Outcome: provide space where housekeeping equipment, fixtures and supplies are stored to support a clean and safe environment for patients and staff*

### 2.14.1 Size/Configuration

Housekeeping rooms can vary significantly, depending on the size of the facility, shared services, and organizational supports. A housekeeping room must be sized appropriately for the safe handling and storage of the equipment and products to meet the daily cleaning requirements. Housekeeping rooms typically average between 50 – 100 + nsf. The size of the room will vary depending on the equipment and supplies being kept in the room. Smaller rooms may be sufficient if other housekeeping facilities are present in the building, providing storage space for bulk supplies and large equipment (e.g. floor scrubbers).

Housekeeping rooms must be able to be locked to restrict access.

### 2.14.2 Clearances

Sufficient clearances must be maintained to safely store, prepare and dispose of cleaning materials and chemicals, including unencumbered access to supplies, PPE, mop sink and any automated dispensing mechanisms, or locked and stored chemicals.

### 2.14.3 Adjacencies

Typically, all cleaning activities should be performed after hours. Housekeeping spaces should be positioned such that they can support the waiting room and exam rooms, on an emergency basis.

### 2.14.4 Shared Space

The housekeeping room may also be utilized for temporary refuse storage, depending on its size and location. If this space is being utilized for refuse, direct access to exterior or permanent storage should be considered.

### 2.14.5 Doors/Hardware

All support spaces shall be equipped with locking hardware to restrict access. In most instances, fire and sound rating requirements will be required under code or standard compliance.

### 2.14.6 Equipment and Furnishings

Sufficient infrastructure such as mop sinks, proper chemical/equipment/PPE storage and requirements for portable cleaning equipment storage must be adequately met. An eye wash station may be required if risk of splashing cleaning chemistries necessitates.

### 2.14.7 Finishes

Care must be made in selecting finishes in housekeeping spaces that are durable, and cleanable. This must be considered when selecting wall coatings, millwork, and flooring. Wall surfaces must be non-porous, and be accessible for routine cleaning and maintenance.
2.15 **MECHANICAL ELECTRICAL AND COMMUNICATIONS ROOMS**

*Outcome: provide adequate space for mechanical, electrical (m/e) and communications equipment required to support the PHC centre, and to provide adequate access for the maintenance, repair and servicing of all equipment*

### 2.15.1 Size/ Configuration
Depending on operational requirements, some equipment may be off-site, on the roof, in the basement, housed within the main floor space of the PHC centre or a combination of these options. Access to these spaces shall be away from the patient care and waiting room areas to limit the disruption of PHC services when maintenance or repair is necessary. The amount of space dedicated to support spaces will be determined by the designers based on the necessary equipment to adequately service the site’s operation. These spaces must be efficiently laid out to minimize wasted space while providing for the outcome of safe serviceability.

The size and functions of the facility will determine the requirements, adjacencies, and location of mechanical and electrical equipment and services.

### 2.15.2 Adjacencies
The support spaces must be located to minimize disruption during servicing or maintenance and be separate from patient areas and waiting rooms to minimize mechanical sound and vibration. Direct exterior access, in combination with interior access, should be considered when possible.

### 2.15.3 Doors/Hardware
All support spaces shall be equipped with locking hardware to restrict access. In most instances, fire and sound rating requirements will be required under code or standard compliance.

### 2.15.4 Shared Spaces
Support spaces will typically require dedicated space for each service.

### 2.15.5 Acoustical Separation
Mechanical equipment must be separated to minimize mechanical noise or vibration to the patient care and waiting areas. Use of housekeeping pads for some equipment may be necessary. Acoustical separations between mechanical/electrical spaces and adjacent occupied spaces shall have a minimum STC rating of 55. Consideration should be given to special wall construction where vibration from equipment is likely within the rooms.
2.16 STORAGE SPACE

Outcome: provide adequate storage to maintain operational requirements

2.16.1 Size/ Configuration
Sufficient storage must be provided to receive and house materials, supplies and equipment necessary to maintain operations. The space required to meet this outcome may be divided and positioned to meet other building configuration priorities. Access to the storage areas, or receiving materials shall not interfere with normal operations, patient or public areas. Direct access to the exterior should be considered.

2.16.2 Adjacencies
Storage areas should be adjacent to staff space, or other support spaces.

2.16.3 Doors/ Hardware
Doors to storage rooms must have locking hardware.
2.17 **Refuse Storage**

*Outcome: provide adequate space to safely store waste and recycling until material can be removed from the facility or site*

2.17.1 **Size/ Configuration**

The refuse storage must be adequately sized to accommodate the expected waste generation specific to the population, services provided, and number of providers, as well as the pertinent requirements for waste stream separation in compliance with local/municipal by-laws. Exterior storage and location near the receiving entrances shall be considered where possible. When stored indoors, special code requirements for fire separation/protection and ventilation shall be considered.

2.17.2 **Adjacencies**

The refuse storage must be located such that materials can be placed by staff and removed from the facility safely. Removal without impacting patient care areas or waiting areas is required. Clear separation between refuse storage and receiving entrances shall be maintained to minimize chances of contamination of incoming materials/supplies.

2.17.3 **Shared Spaces**

Opportunities may exist to share the refuse storage space with other building maintenance/support spaces. Careful consideration should be given to the operational and Infection Control and patient safety implications of refuse storage in Soiled Utility rooms and Housekeeping rooms vs. a dedicated Refuse Storage room.

2.17.4 **Finishes**

Care must be made in selecting finishes in the refuse storage room that are durable and cleanable. This must be considered when selecting wall coatings and flooring. Surfaces must be impact-resistant, non-porous, non-textured and be accessible for routine cleaning and maintenance. They must also be able to withstand frequent cleaning/ disinfection using various hospital-grade chemistries.
3. Appendices
Figure 3.2.1 – Standard Exam Room, Example Layout (100 sf.)
Figure 3.2.2 – Large Exam Room, Example Layout 1 (140 sf.)
Figure 3.2.3 – Large Exam Room, Example Layout 2 (140 sf.)
3.3 **HAND HYGIENE SINK DESIGN**

This guidance is intended to provide individuals involved in the design and building of healthcare organizations and facilities with criteria for the placement and design for dedicated staff hand hygiene sinks. This document is not intended for selection of sinks and faucets for purposes other than dedicated staff hand washing stations, such as clinical sinks, lab sinks, scrub sinks, or food preparation sinks.

Appropriate sink and faucet size, composition, and design will help to prevent contamination of surrounding areas—due to splash or aerosolization—and re-contamination of hands during hand hygiene through inadvertent touching of components.

This applies to healthcare facilities who may be adding or repairing sinks based on new construction, renovation or maintenance and is not intended to be retro-active.

**Placement Criteria:**

1) Hand hygiene sinks are to be dedicated to that purpose and not used for any other purpose. Sinks used for cleaning of equipment and the disposal of waste fluids (e.g., IV fluids, lipids, used antiseptics) will not be used for hand hygiene.

2) Sinks are located at sufficient distance (minimum 1 metre) away from any fixed work surface to ensure they do not contaminate clients/patients/residents, clean supplies or adjacent counters. If within 1 metre, the sink and fixed work surface must be separated by a cleanable splash barrier.

3) Hand washing sinks should be installed at least 3 feet (1 metre) from sources of extrinsic contamination such as clinical rim flushing sinks or hoppers.

4) Sinks are installed at least 865mm above the floor.

5) Sinks are free standing, wall-mounted with no storage underneath due to the proximity to sanitary sewer connections and risks of leaks or water damage. Sinks are not inserted into, or immediately adjacent to a counter.

6) Sinks need to be convenient and accessible. The location of hand hygiene facilities shall be determined through consultation with infection prevention and control personnel and healthcare workers from the care area and in keeping with established criteria regarding optimal placement. Location should be determined in accordance with expected work flow patterns.

7) The availability and location of sinks which can be used by individuals in wheelchairs should be considered based on specific health centre needs and requirements. These sinks are in addition to hand hygiene sinks used by staff.
Sink Design Criteria:

1) All materials used to construct hand wash sinks are capable of sustaining regular cleaning and disinfection with hospital-approved cleaners and disinfectants.
2) Sinks are made of solid, non-porous material (e.g. porcelain, enamel, vitreous china, Corian or stainless steel (minimum thickness 18/8 gauge grade 304). Marble and granite are not appropriate for healthcare settings.
3) Sinks will be sufficient in size and shape to prevent recontamination (from splashing) during use. Minimum inside dimensions should be 350mm x 250mm and a minimum depth of 190mm.
4) The sink shall be designed such that splashing and aerosolization is minimized.
5) The basin should be designed to prevent pooling of water.
6) Plugs, strainers and anti-splash fittings at outlets will not be used.
7) Backsplashes:
   a. Backsplashes will extend a minimum 600mm above sink level and a minimum of 250mm below sink level.
   b. Backsplashes are seamless and non-textured. All edge sealing is to be waterproof.
   c. Backsplashes include the area under the paper towel dispenser and soap dispenser.

Faucet Design Criteria:

1) The faucet shall have a gooseneck spout with a minimum height of 250mm.
2) The faucet radius shall be sufficient to avoid inadvertent touching of the sink basin during hand hygiene and ensure water does not fall directly into drain. A minimum gooseneck radius of 100 mm is recommended.
3) Once the faucet has been attached to the sink basin, there shall be a minimum of 250 mm clearance from discharge point of faucet to the bottom of the sink basin.
4) Faucets shall be stationary and not swivel.
5) Aerators shall not be used.
6) Plumbing lines connecting the valve and water outlet should be as short as possible.
7) Controls:
   • Electric eye, foot pedal, or faucet blade controls may be used. Electric eye operation shall be triggered by hand, not body, placement.
   • Water temperature must be able to be adjusted. Electric eye technology will have a means for manual adjustment of water temperature. Automatic temperature control or ultrasonic controls are not acceptable.
   • If electric eye-triggered devices are used, there must be a contingency plan to deal with power failure (e.g. tie in to emergency power system).
References:

3.4 Definitions

Assessment Room
A centrally located accessible space which, along with generic exam capabilities, contains dedicated, equipment, supplies, teaching materials and resources to provide pre/post-exam assessments (vital signs, weight, height, waist circumference, etc) or teaching and consultation services. Any team member or visiting provider should be able to utilize this space.

Bariatric
Bariatrics is the branch of medicine that deals with the causes, prevention, and treatment of obesity. Bariatric individuals deal with complications of obesity, and may be very severe to morbidly obese. Bariatric accessibility includes seating that is larger and has a higher design weight capacity, exam tables that have a higher design weight capacity and easily lower for accessibility, and improved pathways, including door widths and turning radius in public and exam spaces that provide generous space for mobility devices.

BGSF (Building Gross Square Footage)
Gross area of a building, measured to the exterior face of the exterior walls. Building Gross Area shall be measured in compliance with CSA Z317.11 – Area Measurement for Health Care Facilities (latest edition).

Community
A jurisdictional level with boundaries and a unique demographic profile as defined by Community Counts. There are 311 ‘communities’ in Nova Scotia.

Community Cluster
One or more co-located ‘communities’ creating a critical mass where individuals are within a drive time standard of 30 minutes to the primary health care team and 60 minutes to a Regional Hospital. There are 47 Community Clusters/Networks in Nova Scotia. Note: some Community Clusters, due to geographical challenges, were created that do not meet the proposed approach of critical mass or drive time.

EMR
Electronic Medical Records. A systematic collection of electronic health information about an individual patient or population. It is a record in digital format that is capable of being shared across different health care settings. In some cases this sharing can occur by way of network-connected, enterprise-wide information systems and other information networks or exchanges. EMRs may include a range of data, including demographics, medical history, medication and allergies, immunization status, laboratory test results, radiology images, vital signs, weight, health/visit history, plan of care, progress notes and billing information.

Equipment Requirements
Equipment requirements describe the equipment that must be incorporated into the design of each space within a facility. Inclusion of certain equipment implies inclusion of related supporting infrastructure including electrical and data connections, structural backing and supports. All equipment and furnishings must be new unless otherwise approved by the DHW.
Hotel Space
Most centres will have team members who are on site less often (1 or 2 days/week or less) or have visiting specialists such as psychiatry or pediatrics. There should be 1-2 spaces available (large exam room space) with office and examination equipment that can be made available to providers who are in the centre less frequently, but may need dedicated space when on site.

Minor Procedures Room
Space able to support minor procedures, depending on the population needs and the competencies of the team. Although there will be specific layout and equipment requirements to allow for minor procedures, it must be able to be used as a generic large exam space when not used for minor procedures.

NSF (Net Square Footage)
Net area of a room or functional area (e.g. weighing alcove) within a building. For the purpose of this paper, it is the wall to wall inside finished area of a space, inclusive of millwork, furniture or equipment.

Outcome
Outcome describes the purpose or objective that will be achieved by the facility design and program.

Primary Health Care Centre
A facility where the public can expect to receive primary health care services delivered by a primary health care team that may include family physicians, nurse practitioners, family practice nurses and others. Reception and office staff will ensure appointments are scheduled and do their best to ensure efficient operations such that wait times are minimized and patients are seen in a timely fashion. Primary health care centers may be a meeting place for other community-based organizations as appropriate, which can help foster productive community partnerships between primary health care teams and the broader community they serve.

Programs/ Services
Patients of the primary health care centre can expect comprehensive and continuous primary health care, including health promotion, screening, and chronic disease prevention and management as well as attention to acute, episodic conditions provided by a collaborative interdisciplinary team. The centre may also be the site for programs for particular groups including pre-natal and post-natal support, chronic disease self-management, diabetes education, etc.

Spatial Requirements
Spatial requirements describe the elements that must be incorporated into the design and program of each facility or space within the facility.

Spatial Separation
A source control mechanism to prevent transmission of communicable diseases, particularly those spread by respiratory droplets. Typically, this requires 2 metres distance between infectious patients.

Scale Alcove
While not ideal, it may be necessary to locate equipment for assessing height and weight outside an enclosed room. It will be important to take all measures to ensure the safety, comfort, and privacy of all patients by ensuring the space is not in a high traffic area, is well lit, and has suitable flooring and grab bars to minimize risk of falls.
# PHC Infrastructure Checklist

<table>
<thead>
<tr>
<th>PHC Infrastructure Checklist</th>
<th>(Y/N)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reception and Waiting</strong></td>
<td></td>
<td></td>
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<tr>
<td>Good access to parking and PHC entrance</td>
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<tr>
<td>Reception first point of contact</td>
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<tr>
<td>Reception area appropriately sized</td>
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<tr>
<td>Waiting area visible from reception</td>
<td></td>
<td></td>
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<tr>
<td>Waiting area sufficiently sized</td>
<td></td>
<td></td>
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<tr>
<td>Waiting area can be spatially separated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting area has access to washroom facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting area separate from exam and staff areas</td>
<td></td>
<td></td>
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<tr>
<td>Waiting area has easy access to exam area</td>
<td></td>
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<tr>
<td><strong>Exam Area</strong></td>
<td></td>
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<tr>
<td>Exam spaces clustered and separate from waiting and provider areas</td>
<td></td>
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<tr>
<td>Exam area corridors accessible</td>
<td></td>
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<tr>
<td>Sufficient number of exam spaces</td>
<td></td>
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<tr>
<td>Exam rooms generic and sized between 95-120 SF</td>
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<td></td>
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<tr>
<td>Large exam spaces available - sized between 135-150 SF</td>
<td></td>
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<tr>
<td>Large exam spaces include enhanced pathway access options</td>
<td></td>
<td></td>
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<tr>
<td>Access in exam area to accessible patient WR</td>
<td></td>
<td></td>
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<tr>
<td>Centralized access in exam area to soiled utility</td>
<td></td>
<td></td>
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<tr>
<td>Access in exam area to medical store/prep</td>
<td></td>
<td></td>
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<tr>
<td>Access in exam area to clean utility</td>
<td></td>
<td></td>
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<tr>
<td>Hand wash sinks in all exam spaces</td>
<td></td>
<td></td>
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<tr>
<td>Hand wash sinks in soiled utility and med prep</td>
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<tr>
<td>Visiting specialists space available</td>
<td></td>
<td></td>
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<tr>
<td>Assessment/minor procedure/hotel space identified</td>
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<tr>
<td><strong>Provider Area/Support Spaces</strong></td>
<td></td>
<td></td>
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<tr>
<td>Provider spaces grouped and sized appropriately sized</td>
<td></td>
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<tr>
<td>Provider space separate from exam space</td>
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<td></td>
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<tr>
<td>Staff space separate from exam space</td>
<td></td>
<td></td>
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<tr>
<td>Staff/provider spaces access direct to exterior</td>
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<td></td>
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<tr>
<td>Break spaces separate from exam space</td>
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<td></td>
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<tr>
<td>Access to exam space from provider space</td>
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<tr>
<td>Staff/provider meeting space available</td>
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<tr>
<td>Learner and/or hotel space available</td>
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<td>Access to staff WR</td>
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<tr>
<td>Space for informal collaboration</td>
<td></td>
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<tr>
<td>Mechanical space separate from exam area/access from exterior</td>
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<td></td>
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<tr>
<td>Electrical/comms space separate from exam area/access from exterior</td>
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<tr>
<td>Exterior refuse storage</td>
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