

Creating a Prototype Health Center for Remote Areas in the Canadian North

Case Study

Government of the Northwest Territories

Yellowknife, Northwest Territories

WORK PERFORMED: 2009-2014

SIZE/SCOPE: 2,000 to 16,000 GSF

ARCHITECT OF RECORD: FSC Architects

CHALLENGE

The Northwest Territories Health Authority delivers healthcare to the residents of 20 different communities that are a mix of settlements, towns, and villages. With many of its existing remote healthcare facilities in need of replacement, Cynthia Hayward was commissioned to develop a prototype health center that could be replicated to serve communities of less than 1,500 people—some of which are accessible only by air. The goal was to develop a community-oriented, culturally-sensitive facility to accommodate a multidisciplinary team of nurses, social workers, mental health and addictions counselors, and other community-based and visiting staff. At the same time, there was a need to provide operational flexibility with generic, multi-use and technically adaptable spaces to allow visiting and rotating staff to function efficiently regardless of which facility they were assigned to.



Hay River Regional Health Center (Based on the “Large” Health Center Prototype Layout)

Design Firm: RPK Architects

Cynthia visited the remote communities of Jean Marie River, Fort Providence, and Normal Wells to review current operational processes, space allocation, and the unique characteristics of small, medium, and large health centers. She then developed a space planning methodology and facility configuration concept that could be scaled-up or scaled-down based on the assigned staff and availability of local and regional services. Her structured planning process identified generic spaces to be located in the health center, determined the factors that drive the size and number of individual spaces, and aggregated space by activity zones.

OUTCOME

The generic space programming template and conceptual facility layout enables the architect to move quickly into design as each health center is replaced. For the client, this approach provides short-term operational efficiencies and future flexibility while minimizing construction and renovation costs.

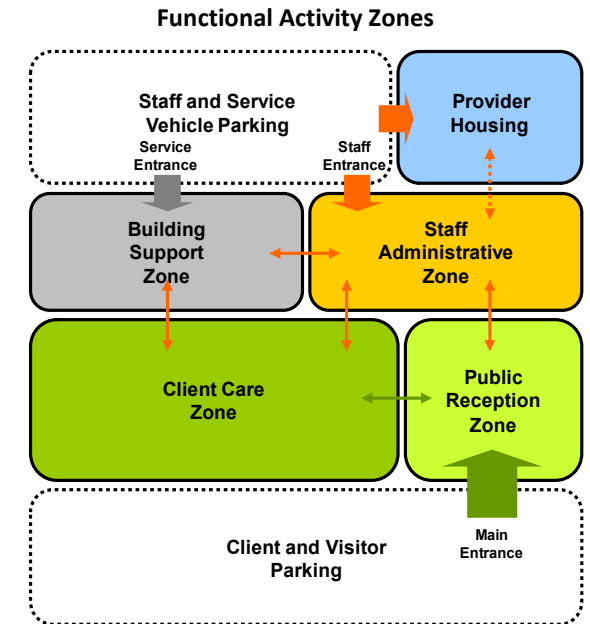
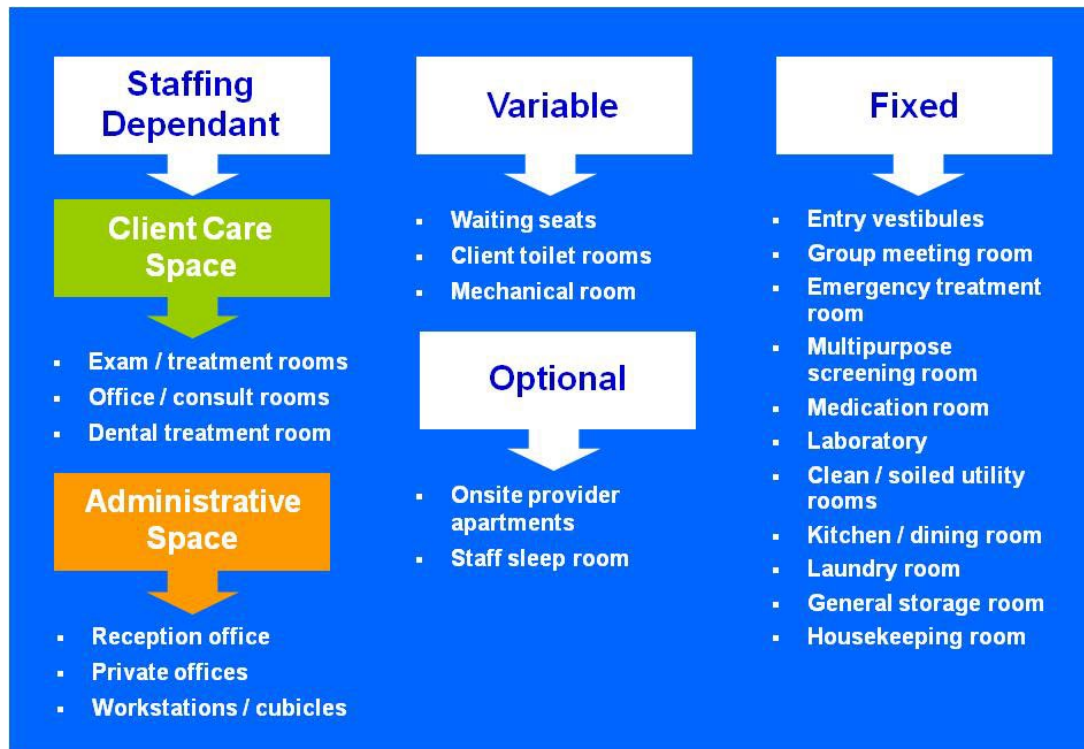
Four replacement health centers have been designed based on the prototype — Fort Providence opened in 2015, Hay River opened in 2016, Normal Wells will be completed in late 2017, and Fort Resolution will be completed in 2018. Planning is underway for replacing additional health centers in Jean Marie River, Tulita, and Lutsel K’e.

Case Study

Identified generic spaces. Cynthia identified all potential spaces and developed standardized room data sheets for generic spaces that accommodate similar functions and could be replicated in each health center. This approach provided both flexibility and savings because rooms would be similarly sized and finished, not tailored to the initial occupants at a particular site.

Determined key space drivers. Cynthia established a specific space “driver” for each individual room or area to be located in the prototype health center. These included staffing-dependent spaces (exam/treatment rooms, offices, and workstations), variable spaces (waiting rooms seats, toilet rooms), fixed spaces, and optional space.

Organized space into activity zones. Cynthia identified five distinct activity zones — public reception, client care, staff administration, building support, and provider housing which were incorporated into the design.



Conceptual Layout for the “Small” Health Center

