



Design Solutions to Improve Healthcare Access and Outcomes:

# CLINICA FAMILY HEALTH

A Case Study on Population Health at  
Clinica Family Health People's Medical Clinic, Boulder, CO

## INSIDE YOU WILL LEARN ABOUT:

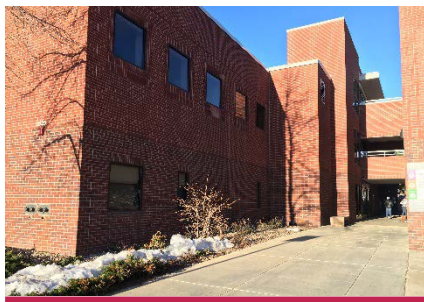
How facility design facilitates population health goals for a community health clinic.

How pod-based layout promotes staff interaction, collaboration, and efficiency.

How the 'group visit' room supports patient engagement, education, and continuity of care.

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## High Impact Design Solutions To Improve Healthcare Access and Outcomes

*Clinica Family Health People's Medical Clinic, Boulder, CO*

### THE QUESTION

Can healthcare organizations use the built environment as a way to promote healthy living?

### THE GOAL

To improve patient access to care, care quality and care safety.

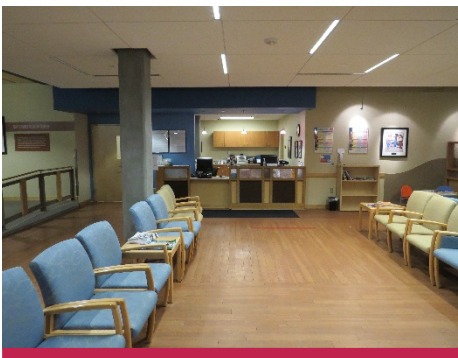
### Background

Clinica Family Health, ("Clinica") is a non-profit healthcare organization providing comprehensive primary care to roughly 48,000 patients through its five community health centers located in the northwestern area of Denver, CO. Clinica is a Federally Qualified Health Center (FQHC) with a mission to serve the low-income, uninsured or underinsured populations with the majority of patients living at or below 200% of the federal poverty level. Patient-centered medical home (PCMH) is the model of care at Clinica; the clinic is certified by the National Committee for Quality Assurance (NCQA) as a Level 3 PCMH. Established in 1977, the organization has consistently engaged in service quality improvement efforts along its journey of continuous growth. As with many other community health centers serving people with limited access to healthcare, Clinica plays an important role in achieving population health objectives.

The People's Medical Clinic, a part of the Clinica Family Health family, opened its new facility in 2009 in downtown Boulder in a renovated, ambulatory care facility. The clinic occupies all of the first and almost half of the second floor of a two-story building that has an attached parking garage. As one of Clinica's recently renovated facilities, the People's Medical Clinic incorporates many recent operational and environmental innovations in an effort to improve the community's health.

### Key Design and Operational Strategies

The improvement of patient access to care, care quality, and care safety constitutes the facility's top priority goals around population health efforts. Some of the key design features supporting population health goals include pod



Waiting Areas

design, co-location team collaboration spaces, group visit rooms, along with service space co-location and consolidations.

### *Pod Design – Empanelment/Continuity of Care*

Pods are the main structure for organizing care at the clinic. There are three color-coded pods, each of which serves as a self-sufficient care unit (i.e., medical home) for a designated patient group. Staff assigned to each pod include 3.4 full-time equivalent (FTE) providers matched with 4.25 medical assistants (MAs), 1.5 nurses, one behavioral health professional, 1.5 case manager, two front desk technicians, one medical records technician and .5 dental hygienist. A group of patients are empaneled, i.e. assigned, to a provider at a ratio of 1,200 patients per FTE provider. The goal to increase the continuity of care (i.e. a patient always seeing the same provider) has been found to benefit the patient, the staff and the organization by leading to fewer ER visits, higher patient satisfaction, increased preventive care compliance, improved efficiency and higher job satisfaction.

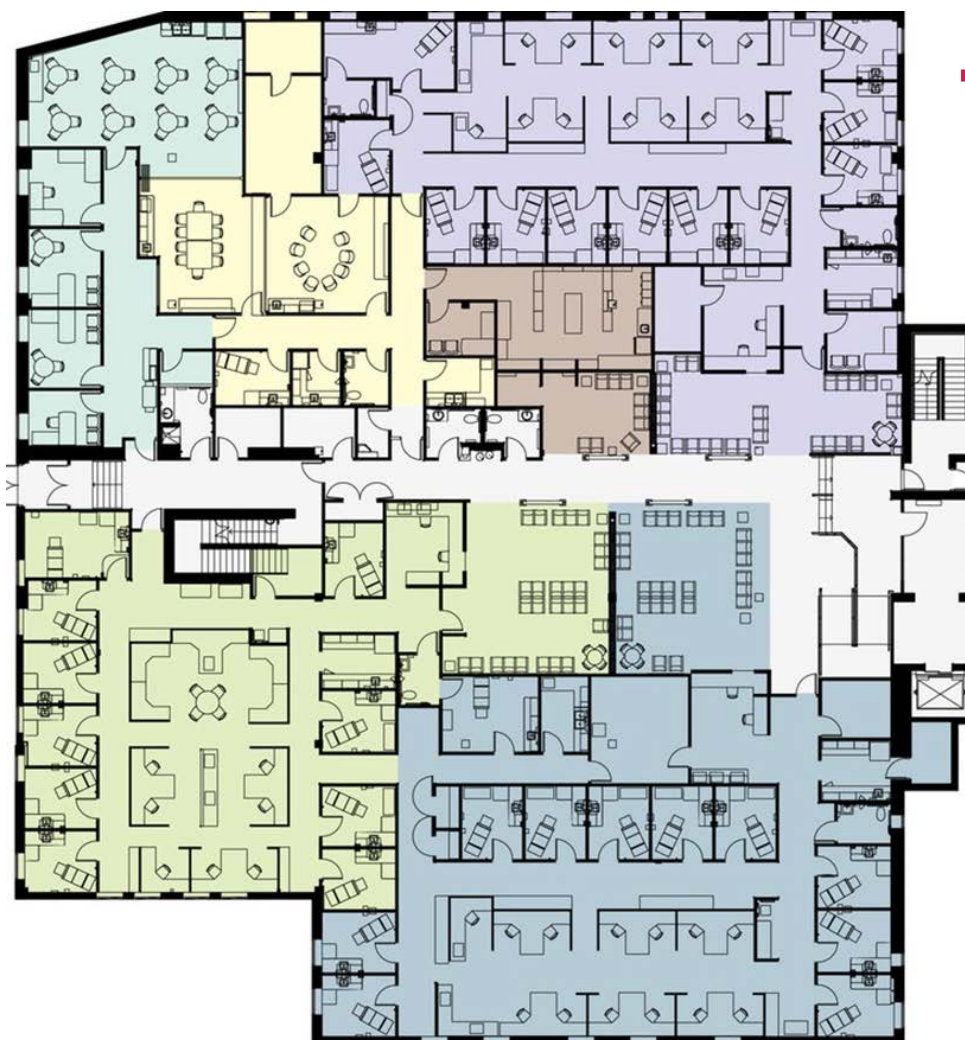
Each pod is built around a centrally located open team collaboration space that is surrounded by 10 exam rooms (three assigned to each provider and one to a



People's Medical  
Clinical Pod  
(Source: Boulder  
Associates)



nurse), one consulting room, used for behavioral health visits, a mini-lab and a patient toilet. Wall colors are used as a visual cue to identify pods (blue, green, purple pods) throughout the spaces from waiting, front desk, to the hallway leading to the exam rooms. There are two procedure rooms, one shared by the blue and green pods and one dedicated to the purple pod. Since Clinica transitioned from traditional racetrack layout to pod design, the organization has experienced an increase in the support continuity of care and improved work efficiencies (e.g., staff walked less and spent more time providing patient care). The continuity of care is also supported by a policy that encourages patients to see their primary care provider at each visit or at least see a member of their provider's team.



People's Medical Clinic  
Floor Plan  
(Source: Boulder Associates)

- Purple pod
- Blue pod
- Group visit area
- Pharmacy
- Green pod
- Staff/admin
- Circulation





### *Co-located Team Collaboration Space/Team-Based Approach*



Staff Collaboration Spaces

One unique feature of the layout is the location of the central collaboration space. Unlike the typical “fish bowl” design with the collaboration space surrounded by hallways and exam rooms on all sides, a collaboration space at People’s Medical Clinic faces exam rooms on three sides (providing good visibility for monitoring purposes). The design keeps one side directly adjacent to exterior walls, for a feel of added security and privacy for staff, with exterior views and natural light. The design strikes a nice balance between the visibility for patient monitoring and the clear boundaries between staff and patient spaces to reduce disturbances to staff work and collaboration. The physical boundary is enhanced by the six-foot-high partitions (with glass panels on top for visibility) and dropped soffit above the partitions.

Except for the front desk technicians, all staff work stations on a pod are co-located in the collaboration space centrally located in the pod. Providers and MAs sit close to each other so that the traditional hierarchy (often enhanced by physicians’ private offices) is minimized and work can easily be passed from one to the other. The design facilitates team communication and coordination, important elements of a team-based care approach. Team huddles occur in the collaboration space at the beginning of the morning and afternoon shifts and allow team members to collaborate on patient care plans.

### *Group Visit Room – Patient Engagement*

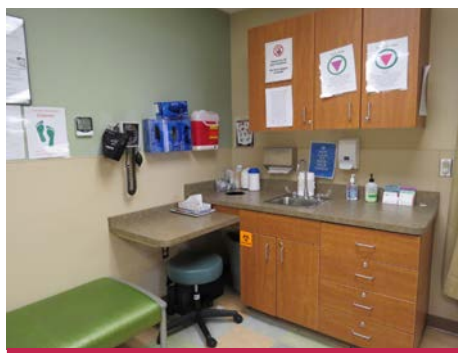
The clinic features multiple group visit suites. A group visit allows Clinica providers to bring eight-12 patients with the same health need into the clinic at the same time. Groups usually meet for 90 minutes, with patients receiving all of the medical care that they would during a one-on-one visit. They also receive health education, specialized information (from dietitians, pharmacists, hygienists, etc.) and support from other patients. Each group visit suite includes a group visit room, a private exam room, a small lab



Consultation Room



Group Visit Room



Exam Rooms

and a restroom. Clinica conducts prenatal, diabetic, pain management, newborn, well-child and anti-coagulation groups. During group visit sessions, staff can increase work efficiency by addressing educational needs of a group of patients at the same time, while patients can share their experience and offer social support to peers. This approach is believed to enhance patient education and engagement, as well as improve work efficiency (e.g., more patients seen per hour) and patient access to care. Two of the group visit rooms can be joined by raising the middle partition to form one big room to accommodate larger groups. A private exam room is located nearby for physical exams when needed.

### *Service Space Co-location & Consolidation – One-Stop Care*

Multiple services are co-located in the clinic, including medical services, pharmacy, nutrition, behavioral health, dental hygiene for children case management and financial screening. The exam rooms are designed to accommodate most activities in a typical patient visit (except for weight measurement) to minimize patient movement and improve work efficiency. The one-stop care approach is intended to streamline patient experience, reduce patient travel and improve the quality and safety of care.

### Other Design Strategies

The design of People's Medical Clinic also incorporates many other features not mentioned above:

- Sustainable design including reuse of insulation and duct work, repurpose door frames from old buildings, occupancy sensors, carpet tiles, low-odor paint, compostable linoleum tiles and a roof-mounted photovoltaic system.
- Low-tech color flags to reduce stress associated with light/sound devices.
- Shower for staff members and bike racks at front door to encourage physical activity and improve access.

In addition, key operational strategies supporting patient access to care also include a call center and an advanced-access scheduling system. A centralized call center handles appointments and routes patient calls to appropriate staff. This helps improve efficiency and reduces phone rings in the pods.



Color Flags



Appointments are opened only two weeks in advance to reduce the no-show rate (patients know their schedule, know when they can get child care, know when they have access to transportation). Appointment slots are reserved each day to allow for same-day appointments, ease of access to care and continuity of care.

### Evaluation & Lessons Learned

Data collection for performance evaluation is a key feature of the PCMH model. Examples of performance metrics collected at Clinica include the percentage of visits when patients see their own providers or other providers in the same pod (for evaluation of continuity of care), patient's willingness to recommend the facility, cycle time and value-added time, compliance with preventive care guidelines, and productivity measurements (number of patients seen per hour per provider). Lessons learned from evaluations are applied to continually improve operation and environmental design features, including the future construction of a replacement facility at another site.

- Due to the physical limitations of the existing building, the pods are separated by a patient hallway in the middle of the building. This physical separation limits cross-pod communication and coordination.
- A variety of workstations are needed to support the needs of staff (e.g., surfaces for quick charting by staff when standing).
- The pod design evolves. For example, there is a trend of increasing the number of work stations in the staff collaboration space to accommodate more staff in the full care team.
- Room for improvement includes the need for positive distractions (e.g., artwork) and natural light for stress reduction. Waiting rooms, most exam rooms and group visit rooms have limited access to natural light.
- The distance between the front desk and team collaboration space may cause breakdown in team communication and coordination.
- There is a lack of wireless connection for patient and family use.
- Most exam tables are not adjustable and therefore do not provide a comfort seat for patients when blood pressure is taken. The clinic made environmental modifications to move blood pressure cuffs from exam tables to benches with supporting surfaces.
- The 9' x 11' exam room appears small for patients with large families.



## Conclusion

Clinica's People's Medical Clinic provides an impressive example of observable alignment between organizational goals and facility design. The opportunity for community members to receive high quality continuity of care – and for clinical staff to provide it – is visible throughout the clinic.

The common function among each design concept (from pod design to team collaboration spaces to group visit rooms) can be simply stated as “bringing people together.” Team members are located near one another, providing frequent opportunities to collaborate and consolidate work. Patient circulation and zones are in close proximity to clinical staff, enhancing communication and visibility, while maintaining privacy and necessary divisions between staff and patient zones. Patients are brought together with other patients as well, facilitating a frequently missed opportunity in community health approaches: the social support of the patient community itself. These opportunities align with the aim to increase patient engagement, empowerment, education, and proactive approaches to health.

## Project Facts

**Organization:** Clinica Family Health

**Facility:** People's Medical Clinic

**Address:** 2525 13th St. Boulder, CO 80304

**Service Area:** Northwest of Denver, Colorado

**Number of exam rooms and other procedure spaces:**

- 31 exam rooms
- 3 group visit rooms
- 3 consulting rooms
- 2 procedure rooms
- 1 ultrasound room
- 3 mini-labs

**Patient visit volume:** 38,508 (2015)

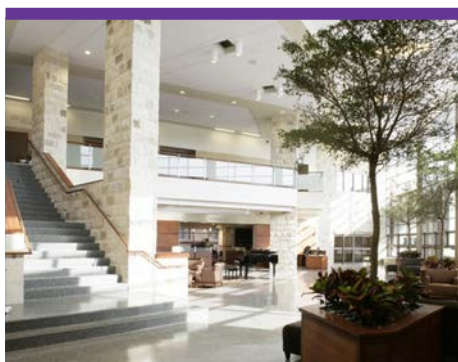
**Total building area:** 21,120 SF

**Certification:** Level 3 NCQA Patient-Centered Medical Home, Federally Qualified Health Center

**Construction type:** Renovation

**Year of construction/renovation completion:** 2009

**Design firm:** Boulder Associates



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