

ON-STAGE/OFF-STAGE CLINIC DESIGN

PURPOSE

To understand how an on-stage/off-stage and a linear clinic module differ in amount of staff-to-staff communicating; operational efficiency measured by distance, travel time, and patient throughput; and the patient perception of privacy.

On-Stage/Off-Stage Module

17,694 GSF | 804 SF exam room
Separate staff & patient corridors and entry to exam rooms
Staff share private 'off-stage' workarea



Linear Module

19,546 GSF | 611 SF exam room
Staff & patients share corridors
Workstations in public view | Dedicated physician offices



ASSUMPTIONS

Because of the separation of staff and patient activities, it is hypothesized that on-stage/off-stage modules improves staff collaboration, operational efficiency and patient privacy. In effect, this module is expected to become more popular in the coming years; however, to date no study exists to support these assumptions.

METHOD

This was a mixed-method study that included shadowing clinic staff (roughly 35 hours), observing patients (roughly 55 hours) and surveying patients ($n=269$). All data was gathered during three visits, between July and August of 2015.

STUDY IMPLICATIONS

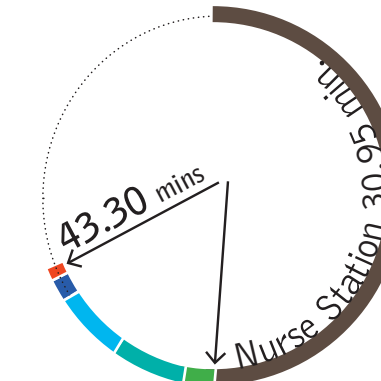
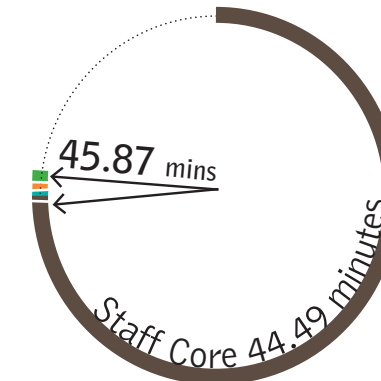
- Amount of staff face-to-face communication did not change among the clinic modules. In the on-stage/off-stage module, most communication occurred in the private, off-stage areas, increasing compliance with patient confidentiality.
- Increasing patient throughput increases the potential number of patients seen daily, justifying added construction costs of an on-stage/off-stage module due to higher ratio of overall SF/exam room
- Reducing patient wait times has been associated with improved patient satisfaction (Dansky & Miles, 1997) and likelihood of patient returning (Camacho et. al., 2006).
- Patients were least satisfied with their level of visual and auditory privacy during check-in/registration and check-out.

Implications for Operational Efficiencies, Staff Collaboration and Privacy

ON/OFF STAGE

LINEAR

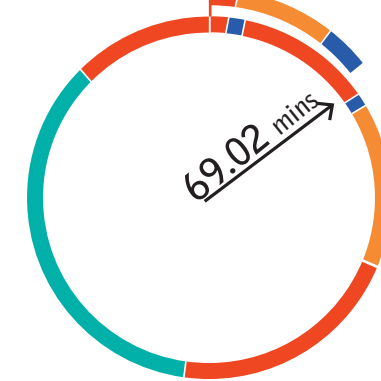
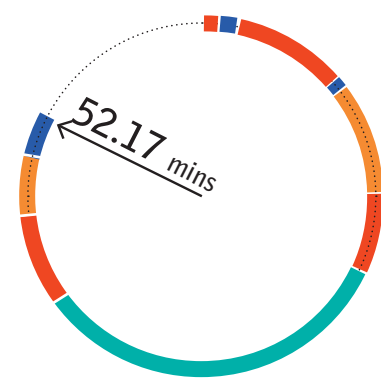
STAFF COMMUNICATION



- Nurse Station
- Lab Work Area
- Stopped in Corridor
- Waiting Area
- Dictation
- Exam Room
- Other
- Staff Office

38.43 minutes
More Communication
in Private Areas

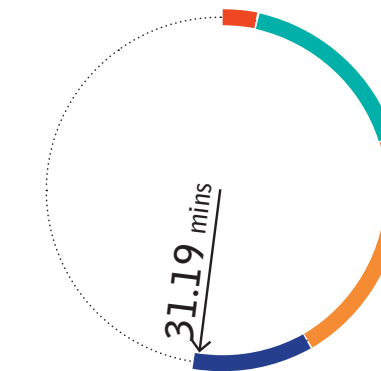
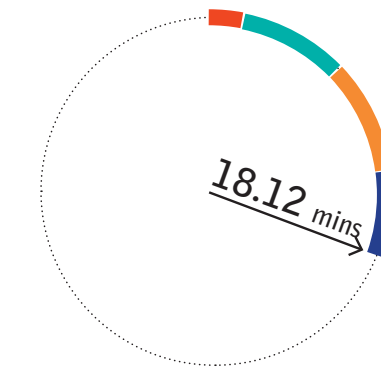
PATIENT THROUGHPUT



- Waiting
- Meeting with Physician
- Meeting with Nurse
- Other

16.85 minutes
Quicker Throughput

PATIENT WAITING



- At Reception
- In Waiting Room
- For Physician in Exam Room
- For Nurse in Exam Room

13.07 minutes
Less Waiting

FINDINGS

STAFF COMMUNICATION

- There was no significant difference in total amount of time staff spent communicating with other staff among the clinic modules.
- The on-stage/off-stage module had significantly ($t(11)=-4.46, p=0.0009***$) more time spent (38.43 minutes) communication in private areas, such as the off-stage area, dictation, exam rooms and staff offices.

STAFF TRAVELING

- Staff in the on-stage/off-stage module traveled significantly less, roughly 0.61 miles ($t(20)=3.07; p=0.006$); and spent significantly less time traveling, approximately 22 minutes ($t(20)=4.01, p=0.0007***$).

PATIENT THROUGHPUT

- On average, throughput was 16.85 minutes quicker in the on-stage/off-stage module.
- Most of the throughput difference was attributed to significantly reduced wait times (13.07 total minutes) in the waiting room and exam rooms.
- Likewise, patients perceived wait times in the on-stage/off-stage module significantly more satisfying in the waiting room ($t(203)=2.53, p=0.01**$) and exam room ($t(197)=-2.45, p=0.01**$).

PRIVACY

- There was no significant difference in patients' perception of physical, visual or audio privacy.
- In both clinic modules, patients perceived their privacy as an important element of their visit, and felt strongly that their expectations of privacy were met.