Work Models

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IN4MATX 281 User Needs Analysis

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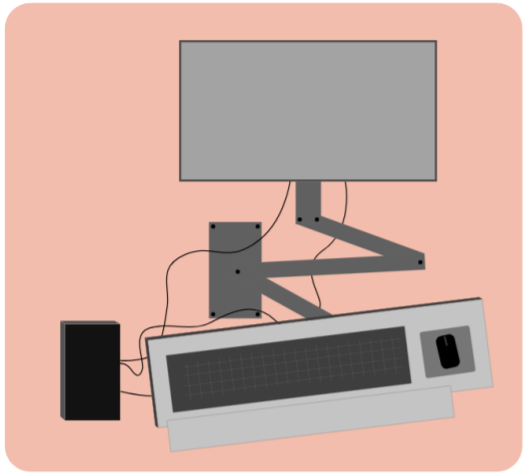
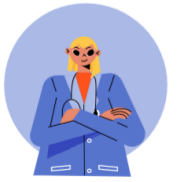
Physical Model



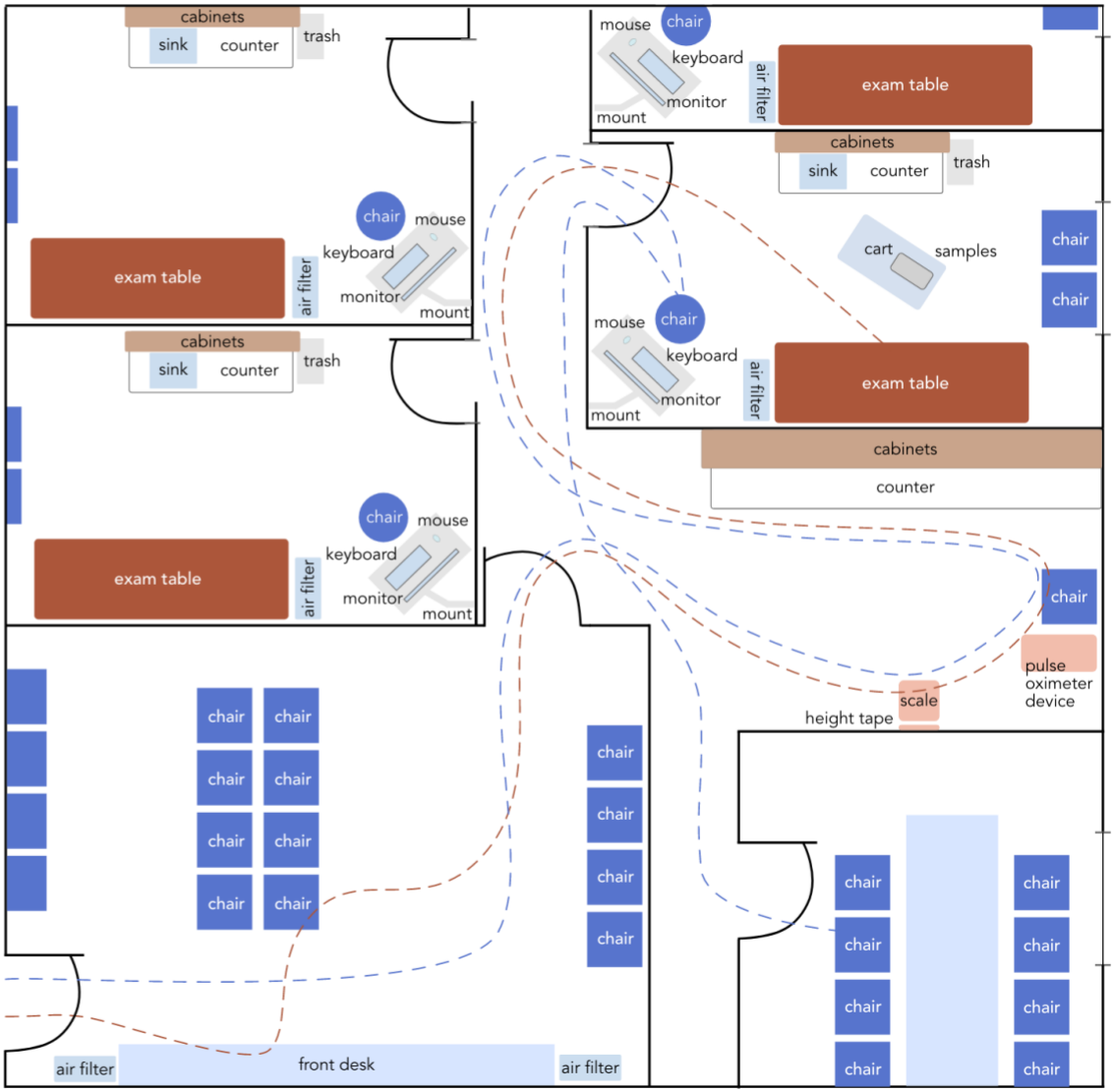
Close up of the computer used in each exam room.

Patient Path



Medical Assistant Path

allergy & asthma practice blueprint



Collaboration Model

roles of the allergist's practice

Doctor

The Doctor communicates with the medical assistants by deciding the course of action for the Patient. Once the Doctor expresses what needs to be done the Medical Assistants begin the process or procedure.

The Doctor and Medical Assistants primary communicate verbally in person. There is a phone system that is used if people are on opposite ends of the office. There is also a chat feature within the Athena software.

The Medical Assistant communicates with the Doctor about the Patients vitals and general symptoms. This happens prior to the Doctors conversation with the Patient.

The only communication that happens between the Physician's Assistant and the Doctor is when the Physician's Assistant has a specific question or needs a second opinion about a care plan for a Patient.

This communication typically happens in person verbally.

The Doctor communicates with the Patient to gain understanding of their symptoms and come to a conclusion of the course of treatment or solution.

While in the office, just verbal communication face to face. When Patient is at home it may be a phone call.

Physician's Assistant

The Physician's Assistant communicates with the Patient to gain understanding of their symptoms and come to a conclusion of the course of treatment or solution.

The Physician's Assistant and Patients form of communication is verbal in person or may be over the phone.

The Physician's Assistant works with the Medical Assistant to analyze and record results from allergy testing procedures. The Medical Assistant enters data into the EMR while the Physician's Assistant dictates what to input. The Medical Assistant must compile the report to give to the Physician's Assistant to review.

The Medical Assistant also communicates with the Physician's Assistant about the patients vitals and general symptoms. This happens prior to the Physician's Assistants conversation with the Patient.

Patient

The Medical Assistant and patient primarily interact when the patient first arrives and their vitals are being measured and recorded. The Medical Assistant will also ask about symptoms the patient is experiencing. The Medical Assistant also explains procedures to the Patient as they are being conducted such as skin prick tests or allergy shots.

The communication between Medical Assistant's and Physical Assistants is mainly verbally in person. There may be emails sent if a Medical Assistant has a non-urgent question.

The Medical Assistant and Patients form of communication is solely verbal in person.

The communication between Medical Assistant's is primarily verbal face to face. It is also in text over chat using Athena Health software. And verbal over the phone from one nurses station to the other.

Medical Assistant

Senior Medical Assistant

The Medical Assistant communicates one another to plan for the course of treatment the doctor has prescribed. This is either allergy shots or allergy skin prick testing. The Senior Medical Assistants train and advise the newer Medical Assistants during procedures.

form of communication

role

Sequence Model

conducting allergy skin prick testing

Intents	Steps
Doctor wants to help patient figure out what they are allergic to.	***Trigger / Doctor orders skin prick testing to be conducted***
	Medical Assistant (MA) staff is notified that a patient will need allergy skin prick testing done.
	MA is available and asks the doctor what category of allergy testing is needed.
	Doctor responds with environmental.
	MA begins to prepare the cart.
	Adds the environmental test kit, markers, gloves, alcohol wipes and mini trash can to the cart.
	Wheels cart from prep area down the hall.
	Enter into patient's exam room.
Medical Assistant wants to make sure the patient is comfortable and gives a space for them to ask questions.	Gives an overview explanation of the procedure.
	Asks patient if they have any questions.
	Puts gloves on.
	Tells patient they are going to wipe down their back and it may be cold.
	Wipes down patients back with alcohol wipe.
	Discards wipe in small bin on cart.
Medical Assistant intends to provide an explanation as the procedure occurs.	Opens marker.
	Explains that they are going to chart off their back to label where the allergens will be pricked.
	x78 Writes the number one about half an inch big on patients back.
	Places marker back on cart.
Medical Assistant intends to notify the patient as a warning that they are going to begin with the pricking and it may be painful.	Explains to the patient that they will now begin doing the pricking and to notify them if a break is needed.
	Opens the top tray of the sample kit.
	Takes out the allergen sample corresponding to the number one.
Medical Assistant intends to administer the samples efficiently to reduce length of time the patient is in pain or discomfort.	Pricks the patient's back by pressing down firmly in the spot allocated next to the number one.
	x78 Discards the prick sample in the bin on the cart.
	Notifies the patient that the skin pricking is complete and that 15 minutes needs to go by before the reading can be done.
	Removes gloves and discards them in the bin on the cart.
	Wheels cart out of room and returns to prep area.
	Sets a timer on phone for 15 minutes.
	Discards the entire bin, sample tray, and marker into the bio waste bin.
	Notifies the Physician's Assistant (PA) that the procedure is complete and the patient will need analysis in 15 minutes.
	15 minutes pass.
	MA and PA enter back into the patient's room.
Physician's Assistant intends to establish empathy with the patient.	The PA asks how the patient is doing.
	The PA explains that the next step is the analysis of the reactions.
	The MA logs into the computer to the Summit Software EMR system.
	The MA pulls up the patient's chart and the template for environmental skin prick testing analysis.
Medical Assistant establishes a line of communication with the Physician's Assistant.	The MA notifies the PA that they are ready to begin recording.
	PA says the number.
	MA enters the number in chart.
	MA hits tab button.
	MA nods.
	PA says the wheal size number.
Medical Assistant and Physician's Assistant intend to conduct the reaction analysis efficiently and effectively by a system that utilizes physical and verbal communication.	MA enters the wheal size number in chart.
	MA hits tab button.
	MA nods.
	PA says the flare number.
	MA enters the flare number
	MA hits enter button.
	x78 MA nods.
	PA says the analysis is complete and the MA will just need to stay for a bit to finish charting.
Physician's Assistant intends to reduce the reaction the patient is having once analysis is complete.	PA wipes down the patient's back with alcohol wipe.
	PA applies hydrocortisone cream to the effected areas of the patient's back.
	PA leaves the patient's exam room.
	MA continues to chart and save the document to the patient's profile.
	MA locks the computer.
	MA turns to patient to tell them they can get dressed and the PA will be back to go over results.
	MA leaves the patient's exam room.

Work Model Reflection

Physical Model

The first model I chose to do was the Physical Model. I thought this model would be a good place to start because it would help me visualize the space in which all my observations and interviews occurred. By mapping out a blueprint of the Allergy and Asthma office I hoped to better understand the movement that occurs between the Patient and the Medical Assistant. Based on my research these two roles had the most interactions. An insight that this model revelated to me is that the Medical Assistant's guide the Patient through the office and there is not one point besides waiting in the exam room when the patient is not being guided by them. The Medical Assistant is also the first and last person the Patient sees for the duration of their visit once checked in. From this model I also noticed a physical insight based off the organization of each exam room. There is an air filter placed in between the computer station and the exam table in each room. The air filter is in the middle of where most of the interactions happen between the patient and medical assistant. Another insight is the positioning of the computer monitor to the exam table. The computer is mounted to the wall next to the exam table in each room rather than next to it. This poses a physical barrier when the medical assistant is charting data that the Patient is telling them. The Medical Assistant physically must turn away from the Patient to enter data into the computer. Overall, I think the Physical Model is extremely valuable especially when you have a small physical space where a lot of interactions occur. This model is great for understanding movement and how the physical space can impact the interactions people have.

Collaboration Model

The next model I chose to create was the Collaboration Model. I thought this model would be helpful in understanding how each role in the practice communicates to help the Patient. During my interviews sessions I learned more about the technologies the practice uses and how there are certain communication expectations based on your individual role. From this data I thought this model would help to highlight how all these communication styles intertwine and the hierarchy behind them. The first insight from this model is that every person in this office is working to help the Patient. This may be obvious, but when thinking about how to lay out all the different roles I initially had the Patient at the bottom. I realized they should be in the middle because all the communication between the people working at this office is centered around a Patient. Another insight this model highlighted is the form of communication expected is directly impacted by the role of the person you are communicating with. Specifically, the head Doctor is never called over the phone, emailed, or texted by Medical

Assistants. It is expected that the sole form of communication is verbally in person. This is also expected for communicating with Physician's Assistants. The Medical Assistants however communicate with one another by any means necessary. They will call each other by phone, use a chat messenger, talk in person, email, and use sticky notes. The Physician's Assistant and Doctor rarely communicate, and if they do it is in person and it is the Physician Assistant getting an opinion or asking a question to the more experienced Doctor. This also brought up an insight about the software being used after the Patient visit is over. The only way to contact the Doctor after a visit is by phone. Whereas the Patient's Care Plan and data can be accessed in Athena Health, they do not rely on it as a channel of communication with the Doctor. Overall, I think this model is great to better understand an environment that has several roles at play to accomplish a goal or job. This model is valuable to understand the communication that goes on and can help uncover meaning that may not have been seen otherwise.

Sequence Model

The last model I chose to create was the Sequence Model. I thought this model would help to highlight the communication, technology, and interactions when conducting a specific procedure. During my observations I found the allergy skin prick testing to be fascinating with how the Physician's Assistant and Medical Assistant work together to interpret, analyze, and record data. I thought this model would help to breakdown each of these interactions and the true intentions behind them. My first insight from this model is there are three different points where the same action occurs 78 times, and because of this quantity, efficiency and accuracy is a key factor. Also, tying into the previous Collaboration Model, the Medical Assistant is the recorder and the only person interacting with technology in this sequence. Whereas the Physician's Assistant is the one interpreting and analyzing the Patient's reactions and verbally communicating their findings. The Medical Assistant also used physical cues such as nodding, to communicate with the Physician's Assistant that they are ready for their next number sequence. Within the charting software, Summit, they are also hitting specific keys that add an auditory cue for the Physician's Assistant when they are done inputting a set of data. These two cues, physical and auditory aid in the efficiency of the recording by providing feedback to the person interpreting the results. The Physician's Assistant is solely looking at the Patients back, and the Medical Assistant is solely looking at a computer screen. The main insight here is even with their backs to each other they have developed a system to achieve documentation, even when the data set is a long sequence of numbers. This model is valuable to analyze a specific process that you may have observed. I think it showcases the value of each micro interaction between people by allowing someone to outline the steps it takes to do something. Overall, the Sequence Model is great to visually show processes and patterns can emerge.