NARRATOR: In the health care industry, the term workflow is used to describe the many complex systems of interconnected processes that contribute to the delivery of care. Workflow is a model used to summarize all of the steps that go into a specific health care procedure, such as checking in a patient or having blood work done.

Workflow is especially relevant in today's health care environment, which is focused on streamlining operations and increasing quality and value for patients. This often involves implementing technologies, such as wireless communication devices and electronic health records, or EHRs.

Leaders and stakeholders of health care organizations often design workflow with effectiveness and efficiency in mind. Workflow design begins with outlining current procedures related to health care delivery. Then, this information is used to define future workflow requirements and changes that could be made to improve the quality of care. This step is known as process modeling.

Oftentimes, process modeling is completed using a workflow diagram, which illustrates relevant tasks and branch points where decisions or options occur. To better understand process modeling, let's explore an example of a current workflow diagram and how it could be improved by integrating technology. In this example, we will explore workflow for a patient visit to receive an injection or immunization.

The process begins when the patient arrives for the appointment. The patient signs in with the receptionist, who pulls the patient's file and asks him or her to verify the information. If the patient needs to make a co-pay, then he or she does so. If not, or after the co-pay has been collected, the patient takes a seat in the waiting room.
Then, the receptionist verbally notifies the nurse that the patient has arrived and puts the patient's medical record, super bill, and labels into a tray for the nurse to collect. When a room is available, the nurse takes the documents in the tray and rooms the patient.

The nurse checks the patient's vital signs, verifies the patient's medications and allergies, and confirms that the patient has come for an injection or immunization. Then, the nurse performs the procedure and records it in the patient's chart.

If the patient has a reaction to the injection, or if there is another problem, the nurse must find the physician to address the issue. The physician then sees the patient and records the incident in the chart.

When the visit is complete and all issues have been addressed, the nurse gives the patient any relevant materials and the super bill for the visit. The nurse also asks the patient to check out with the receptionist. If the patient does not check out, his or her super bill will be lost.

If the patient does check out, the receptionist collects the super bill, verifies the charges, and schedules of any follow-up appointments. Then, the patient leaves, and if the visit is complete, the receptionist sends the patient's record and super bill to billing. If there is still outstanding paperwork for the nurse to complete, the receptionist must wait to send out the record and super bill. After the bill is sent out, the workflow ends.

As you can see, this workflow scenario has several inefficiencies that could be addressed by integrating technology. The first procedure that would be affected by these changes is the receptionist pulling the patient's file. In an EHR workflow, the receptionist could simply call up the record on the computer.

Later in the workflow, the receptionist could use the wireless communication system to notify the nurse if the patient had arrived. With an EHR, the nurse also would not have to collect the documents from the tray at the front desk. Instead, the nurse would access the record on the computer in the medical exam room.
This would also affect how the nurse makes notes in the patient’s chart. If a reaction or a problem occurred, the nurse could use the wireless communication system to notify the physician. This would improve the efficiency of the workflow and would add to the quality of care, because the nurse could stay with the patient instead of leaving the room to find the physician.

At the end of the visit, the nurse would no longer hand the patient the super bill. Instead, the nurse would update the super bill within the EHR, and this data would be immediately available to the receptionist at the front desk. This would eliminate the loss of information if the patient did not check out. In this case, the receptionist would simply make a note to contact the patient for any need follow-up.

As this example has shown, by using the steps of workflow design, leaders of health care organizations can identify inefficiencies in current systems and determine how the systems will be affected by tools like EHRs and wireless communication devices.