The NCSBN Clinical Judgment Model

Layer 0

Client Needs

Clinical Decisions

Layer 1

Clinical Judgment

Satisfied

Not Satisfied

Layer 2

Form Hypotheses

Refine Hypotheses

Evaluation

Layer 3

Recognize Cues

Analyze Cues

Prioritize Hypotheses

Generate Solutions

Take Actions

Evaluate Outcomes

Layer 4

Environmental Factor Examples

Environment

Client Observation

Resources

Medical Records

Consequences & Risks

Time Pressure

Task Complexity

Cultural Consideration

Individual Factor Examples

Knowledge

Skills

Specialty

Candidate Characteristics

Prior Experience

Level of Experience

Nursing Process

Assessment

Analysis

Planning

Implementation

Evaluation
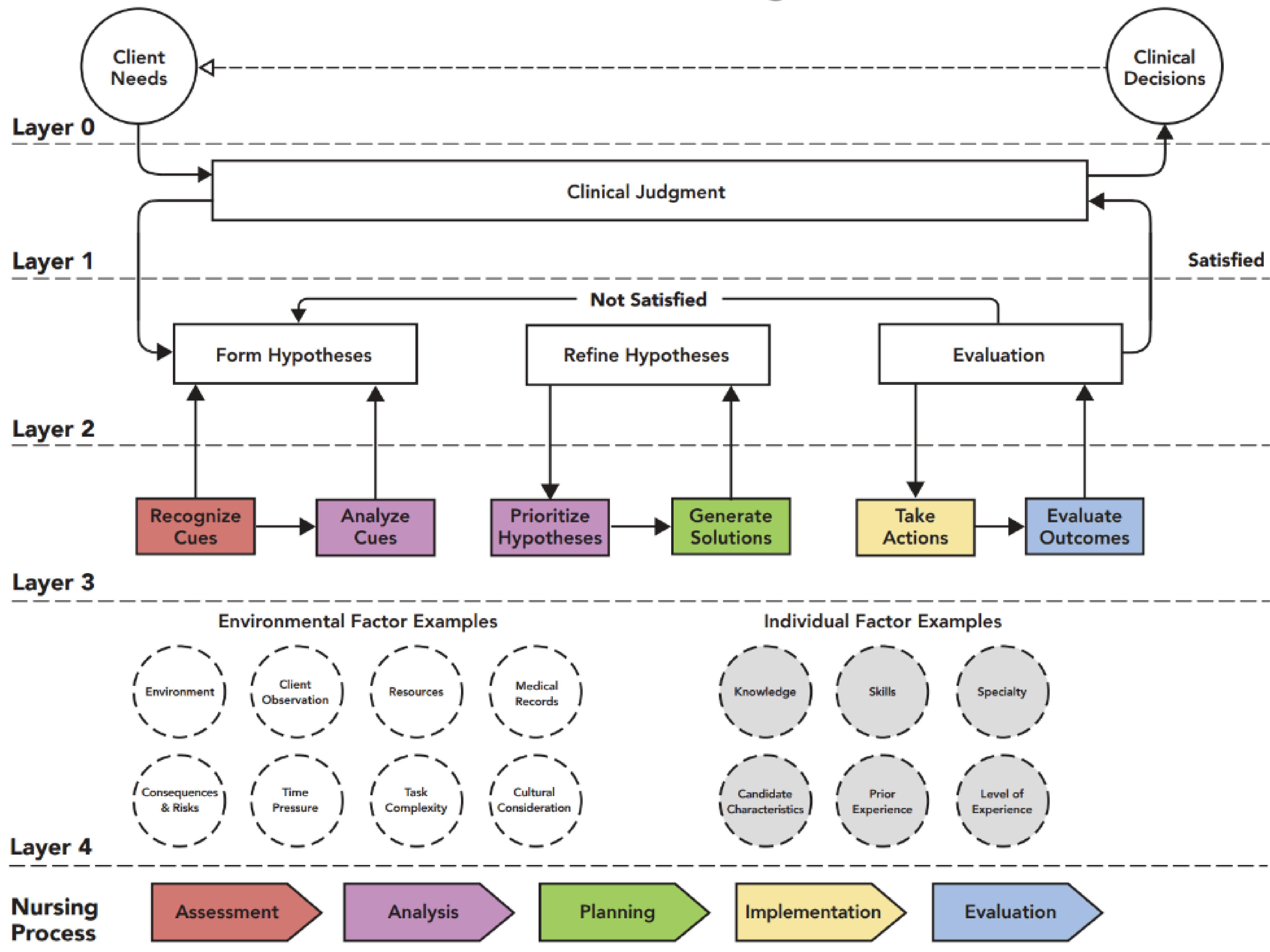
"Jobs-to-be-Done"

In prior years, our SPARK work has used the "Jobs-to-be-Done" theoretical model to help in understanding workflows and where/how technology night offer an improvement.

Thinking about "jobs as processes" has help us break down the tasks involved in workflows and allows tech developers to uncover areas where automation can remove steps and reduce friction/workload. Workflow mapping is used to determine if an improvement is possible in 1) executing specific job steps, 2) eliminate the need for inputs/outputs, 3) remove entire steps from the person responsible for the job, 4) addressing an overlooked step, 5) resequencing steps, and 6) enabling steps to be completed in new locations or at different times (Bettencourt et al,2008). For example, SPARK members contributed insights into the job of taking and documenting vital signs.

Example:

- **Job:** Taking & documenting Vital Signs
- **Responsible Worker:** Nurse, often delegated to a CNA
- **Problem:** Required and repetitive task in care delivery; high risk of being inconsistently performed and documented; Implications for other workflows and accuracy of EHR
- **Workflow mapping identified opportunities for technology to have an impact on:**
  - Executing specific job steps
  - Eliminate the need for specific inputs or outputs
  - Removing an entire step(s) from the responsibility of the person performing the job
  - Enabling steps to be completed in new locations or different times
  - Tech Solution: DS smart simplifies vital sign collection, prompts complete documentation, transmits data immediately to medical record, with accurate date/time stamp.
- **Outcomes:**
  - Reduces total time of completing this required, repetitive task up to 40%
  - Reduces redundancy of completing task again if data is needed, but not yet documented.
  - Increases to 100% accuracy of date/time VS taken and document.

Using the "jobs as processes" model will continue to be useful for our SPARK work as we pursue technology solutions with demonstration impact on workflow efficiences and safety.

"Clinical Judgement Model"

Advances in technology are taking us into new Territory, beyond "getting the work done". Passive data collection, sensors, and monitoring technology are generating large amounts of data capable of identifying patterns and insights we haven't had before. Big questions have emerged. What do we do with this information? What does it mean? Who is meant to use these insights? We need a new model to help us test ideas on the meaning, and value, of these insights.
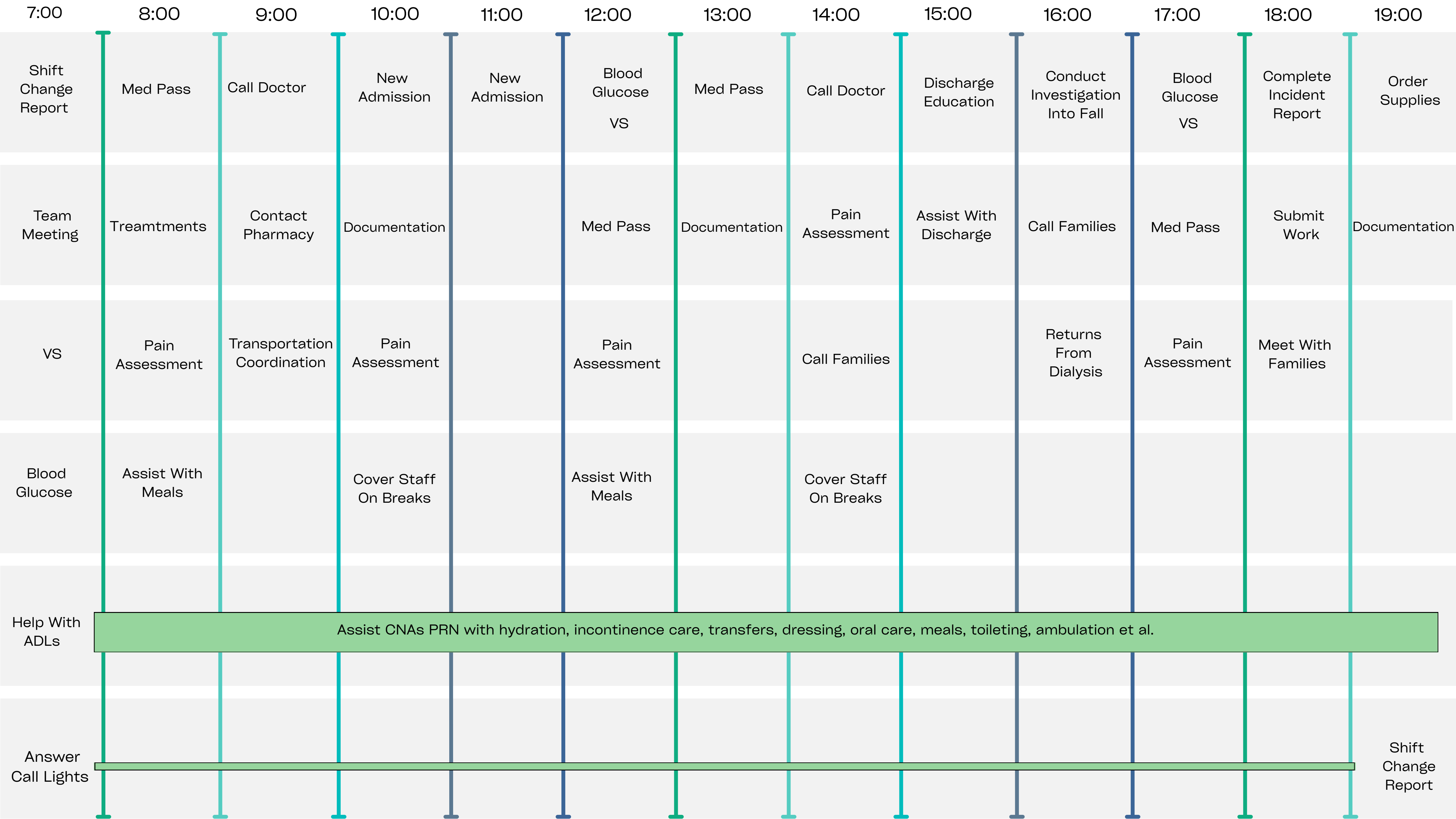
RNs and LPNs require clinical judgement skills to practice nursing: however, the educational preparation of RNs is intended to prepare for a higher degree of clinical judgement skill than an LPN. Since senior care and living centers have historically employed more LPNs and CNAs than other care settings, it's imperative to consider the role technology might play in supporting data collection, analysis, and insights that could contribute to clinical judgement. In April 2023, the National Council of State Boards of Nursing (NCSBN) began evaluating clinical judgement skills in the National Council Licensure Exam (NCLEX). The NCSBN Clinical Judgement Measurement Model (NCJMM) is used to measure clinical judgement and decision-making in these standardized tests.

Research by NCSBN was conducted to determine if clinical judgment is more than just having nursing knowledge. **The study found that while knowledge is important, it's not enough to demonstrate the clinical judgment needed for safe nursing practice.** The study also found that nurses' ability to demonstrate skills in the clinical judgement process improves over time. These skills include cue recognition, analysis, hypothesis formation and prioritization, generating solutions, taking actions, and evaluating outcomes.

The" NCSBN Clinical Judgement Model" helps our work.

JUNE JONES, LPN / 12 HOUR DAY SHIFT

Goal: Generate a timeline depicting a "successful" shift of an LPN working a day shift in a senior care/living environment and the key tasks, jobs, and decisions needed to achieve a successful shift.

7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
Shift Change Report	Med Pass	Call Doctor	New Admission	New Admission	Blood Glucose VS	Med Pass	Call Doctor	Discharge Education	Conduct Investigation Into Fall	Blood Glucose VS	Complete Incident Report	Order Supplies
Team Meeting	Treamtments	Contact Pharmacy	Documentation		Med Pass	Documentation	Pain Assessment	Assist With Discharge	Call Families	Med Pass	Submit Work	Documentation
VS	Pain Assessment	Transportation Coordination	Pain Assessment		Pain Assessment		Call Families		Returns From Dialysis	Pain Assessment	Meet With Families	
Blood Glucose	Assist With Meals		Cover Staff On Breaks		Assist With Meals		Cover Staff On Breaks					

Help With ADLs — Assist CNAs PRN with hydration, incontinence care, transfers, dressing, oral care, meals, toileting, ambulation et al.

Answer Call Lights — (spanning full shift) — Shift Change Report

What are the metrics of a "successful" shift for Jone?

- Residents feel well cared for and satisfied
- Staff receive clear, complete information on assignments to be successful
- All meds safely & correctly administered & documented
- All treatments safely & correctly done & documented

- All Residents received appropriate and timely ADL support
- Call lights answered timely
- Smooth Administration & discharge process
- No adverse events
- All documentation complete

- Staff assignments re-distributed during shift as needed
- Staff able to take breaks & meals
- June able to take breaks & meals
- June can access her DON & Dept Heads for help & support
- Able to leave on time

June Jones, LPN

June Jones

Nurse Supervisor

Scenario Overview:
June comes in for work on Wednesday, it's her first shift this week. She typically works three 12hr day shifts and has four days off. It's the first time in 10 years as an LPN she has a schedule that works well for her and her family.

As the Nurse Supervisor for her floor of 30 residents, average age of 87, she faces several challenges today. Although she has 3 CNAs scheduled today, one is out sick. She isn't sure yet if she'll have someone to fill in.

Her shift begins with taking a report from the night nurse and learns the following:

- **Medication Needs:** She has 10 residents that take 14 or more medications. All 30 residents receive medication assistance or administration.
- **ADL Support**: 15 residents need assistance with activities of daily living. In addition, 6 residents are diabetic and need assistance with blood sugar testing.
- **Resident Move-Out**: 1 resident is moving out of the community today to live with her daughter.

Center Details:
The center where June works is in a semi-rural area in a southern state. It's been a hot summer in their town, with average daily temperatures of 105 for the past ten days. The main road into town was heavily damaged due to recent flooding, causing delays in supply and medication deliveries. The building is 35 years old and recently was sold to a new ownership group from Illinois. When fully occupied, the center can serve up to 80 residents, although occupancy has been closer to 65 due to workforce shortages.