

VSI (Virtual Stellar Intern)

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Role: Technical Designer

Tools: Figma, Photoshop, Zeplin, React (for prototyping)

Timeline: 2 months

TL;DR

I designed and prototyped **VSI**, a rapid-clinical-overview app that lets doctors, nurses, and specialists see a patient's history, vitals, schedule, and known conditions quickly — the prototype validated that a modern solution could fit inside Elevance's ecosystem and gained stakeholder and end-user buy-in for further testing.

Problem

Clinicians needed a fast, reliable way to see the most important patient information — history, vitals, scheduling, and known conditions — and to quickly create a course of action (such as scheduling follow-ups or prescribing medication) while meeting with patients.

Existing medical apps were outdated, slow, and poorly optimized for real-time decision-making, often forcing clinicians to rely on multiple tools and manual processes.

Role & Team

- **My role:** Lead Designer and Technical Designer — responsible for interaction design, UI prototyping, and validating feasibility within Elevance's ecosystem.
- **Team:** Product designers, front-end developers, and clinical consultants.
- **Goal:** Create a streamlined, unified interface that would enable clinicians to act quickly and confidently using accurate, consolidated patient data.

Research & Key Insights

- **Method:** Interviews with doctors, nurses, and clinical experts; heuristic review of existing clinical systems; inventory of available data sources.
- **Key insight 1** — Many clinical tools currently in use are outdated and not optimized for quick, in-meeting decision making.
- **Key insight 2** — Doctors, nurses, and specialists are eager for modernized tools and are willing to provide input to improve workflows.
- **Key insight 3** — There is a wealth of records and data points available, but pulling the right information quickly remains a major pain point.

Personas & Data Structures

To ensure the prototype addressed real-world use cases, we developed **personas** that represented common clinical roles and mapped directly to the underlying data structures in the prototype.

- **Dr. Ellis (Primary Care Physician):** Needed a rapid overview of patient history and medications before daily rounds.
- **Nurse Patel (Clinic Coordinator):** Focused on patient intake data, vitals, and upcoming appointments.
- **Dr. Nguyen (Specialist):** Required visibility into ongoing treatment plans and multi-provider data integration.

Each persona was backed by structured data, allowing us to simulate realistic workflows and **test edge cases** — such as missing information, conflicting vitals, or overlapping schedules. This persona-driven approach helped shape the overall **flow of the application**, ensuring every feature was grounded in authentic user behavior and data patterns.

Solution

Overview screen — rapid snapshot of vitals, last visit summary, critical flags along with the generated “One Liner”.

Patient Overview: Davis, Yvonne
Pronunciation: Day - vis, Ee-von
Female, 45
DOB: February 16, 1977
Language: English
Work: Account Manager
PCP: Dr. Charlie Roseman
Last Visit: April 19, 2021
HEALTH SCORE: 46

One Liner
45 y.o. previously healthy, single mother of three children, recently diagnosed with BRCA1+, triple negative breast cancer to be treated with double mastectomy, followed by chemotherapy.

Vitals (04/19/2021)
BP: 123/68
HR: 72
O2SAT: 98%
TEMP: 98.5
WEIGHT: 130LBS
BMI: 21

Labs (05/08/2021)
HEMOGLOBIN: 12.4
WBC: 5.1
NEUTROPHILS: 3.4
PLATELETS: 264
CREATININE: 0.84
eGFR: 89

Problem List
Active Resolved All
● **Double Mastectomy - May 9**
Bilateral mastectomy scheduled for May 9 with an expected hospital stay of 2-3 days. Pre-op labs completed on May 8...
● **Triple Negative Breast Cancer - L breast**
Biopsy suggests triple negative breast cancer (TNBC). Yvonne met with Dr. Roger Brownstone...
● **BRCA1 Gene Carrier**
BRCA1 gene mutation detected in 2018. Yvonne's mother passed away from breast cancer at age 51. Maternal...
● **COVID-19**
Pt and children recovered from COVID-19 in July 2020. No hospitalization or supplemental O2 required...

Agenda
Today Goals Actions Taken Tasks Follow Up
Drag & drop any item to add it to the Agenda

Medications
All 1 Diabetes Depression Pain Discontinued
● **Multi-vitamin** Once daily 0 \$\$ Adherence: ●

Care Gaps
All 1 Screening DME Vaccination Refills
● **Due for Pap Screen** (01/24/2021) Route to: Care Team

Social Determinants of Health
All 4 Housing Social Financial Food Access to Healthcare
● **Family Context:** Single mother, divorced 4 years ago and has sole custody of her 3 children (8,11,13). Yvonne's mother died at 51 y.o. of bre...
● **Social Support:** Work colleagues and churchmates are main supports. Best friend, Aniyah, works with Yvonne and lives nearby. Strong relati...
● **Financial Constraints:** Finances are tight while off work for cancer treatments. Awaiting disability payments - paperwork filed but has 60...
● **Cancer Care Program:** Enrolled in cancer care support program. Provided information about cancer care journey including: community...

Patient Care Network
All 5 Pulmonology Nephrology Endocrinology Podiatry
● **Primary Care** Dr. Charlie Roseman 04/19/2021
● **Clinical Advocate** Betty Taylor Today
● **Surgical Oncology** Dr. Roger Brownstone 04/24/2021
● **Oncology** Dr. Leslie Burgenon 05/03/2021
● **Social Work** Nancy Parkerman 05/04/2021

Module deep dive — collapsible modules that display more data points and enable the end user to see more.

Patient Profile: Davis, Yvonne, Female, 45, Pronouns: She/Her, DOB: February 16, 1977, Language: English, Work: Account Manager, PCP: Dr. Charlie Roseman, Last Visit: April 19, 2021. Health Score: 46.

One Liner: 45 yo, previously healthy, single mother of three children, recently diagnosed with BRCA1+, triple negative breast cancer to be treated with double mastectomy, followed by chemotherapy.

Vitals: BP 126/64, HR 72, O2SAT 98%, TEMP 98.5, WEIGHT 130LBS, BMI 21.

Labs: HEMOGLOBIN 11.3, WBC 4.2, NEUTROPHILS 3.7, PLATELETS 296, CREATININE 0.85, eGFR 88.

Problem List:

- Hospital Discharge - Double Mastectomy** (Active): Discharge Diagnosis: Double Mastectomy with Axillary LN Dissection for TNBC.
- Triple Negative Breast Cancer - L breast** (Active): Biopsy suggests triple negative breast cancer (TNBC). Yvonne met with Dr. Roger Brownstone (surgical oncology)...
- BRCA1 Gene Carrier** (Active): BRCA1 gene mutation detected in 2018. Yvonne's mother passed away from breast cancer at age 51. Maternal aunt...
- COVID** (Resolved): Admitted to hospital in August 2021 with COVID-19 delta variant. Required 3L supplemental O2 for 3 days...

Hospital Discharge - Double Mastectomy Summary: Admission Date: May 10, Discharge Date: May 13. Double Mastectomy with Axillary Lymph Node Dissection completed May 10 with 2 JP drains still in-situ upon hospital discharge. No surgical complications. EBL of 750cc. Pt discharged on oral iron supplements. Yvonne initially required IM/IV meds for pain control but transitioned to oral analgesia during admission and pain was controlled with oral therapeutics on discharge.

Pain Scale: Patient Reported Pain Scale graph showing a downward trend from 7 to 1 over the period of May 10 to May 13.

Hospital Discharge Medications:

Drug	Dose	PT cost
Keflex	500mg po QID x 7 days	\$\$
Tylenol #3	500mg po q4hr PRN pain, M-30 tabs	\$
Ketorolac	10mg po Q6h PRN pain, M-20 tabs	\$\$
Ferrous fumarate	300mg po OD	\$

Follow up Plan:

- Home care nurse arranged for JP drain assessment May 14.
- Surgical follow up with Dr. R. Brownstone on May 22.
- Return to ER if fever, purulent discharge, shortness of breath, chest pain, uncontrolled pain.

Agenda — create course of action: schedule follow-ups, set orders, prescribe meds (prototype only).

Patient Profile: Davis, Yvonne, Female, 45, Pronouns: She/Her, DOB: February 16, 1977, Language: English, Work: Account Manager, PCP: Dr. Charlie Roseman, Last Visit: April 19, 2021. Health Score: 46.

One Liner: 45 yo, previously healthy, single mother of three children, recently diagnosed with BRCA1+, triple negative breast cancer to be treated with double mastectomy, followed by chemotherapy.

Vitals: BP 123/68, HR 72, O2SAT 98%, TEMP 98.5, WEIGHT 130LBS, BMI 21.

Labs: HEMOGLOBIN 12.3, WBC 4.8, NEUTROPHILS 3.2, PLATELETS 224, CREATININE 0.83, eGFR 89.

Problem List:

- Triple Negative Breast Cancer - L breast** (Active): Biopsy shows triple negative breast cancer (TNBC). Yvonne met with Dr. Roger Brownstone (surgical oncology) and...
- BRCA1 Gene Carrier** (Active): BRCA1 gene mutation detected in 2018. Yvonne's mother passed away from breast cancer at age 51...
- COVID-19** (Resolved): Pt and children recovered from COVID-19 in July 2020. No hospitalization or supplemental O2 required...

Agenda:

- Triple Negative Breast Cancer - L breast** (Today): Task assigned to Care Team.

Care Gaps:

- Due for Pap Screen** (04/24/2021): Route to: Care Team.

Social Determinants of Health:

- Family Context:** Single mother, divorced 4 years ago and has sole custody of her 3 children (8,11,13). Yvonne's mother died at 51 y.o. of bre...
- Social Support:** Work colleagues and churchmates are main supports... Route to: Social Work.
- Financial Constraints:** Finances are tight while off work for cancer... Route to: Social Work.
- Cancer Care Program:** Enrolled in cancer care support program... Route to: Social Work.

Medications:

Drug	Dose	Refills Left	PT cost	Adherence
Multi-vitamin	Once daily	0	\$\$	Green checkmark

Patient Care Network:

- Primary Care:** Dr. Charlie Roseman (04/19/2021)
- Clinical Advocate:** Betty Taylor (Today)
- Surgical Oncology:** Dr. Roger Brownstone (04/24/2021)
- Oncology:** Dr. Leslie Burgeron
- Social Work:** Nancy Parkerman

Another Patient — an example of a patient with more data points and more features enabled.

Robinson, Louis
Male, 65
DOB: January 21, 1950
Language: English, French
Work: Retired
PCP: Dr. Jeff Sanders
Last Visit: January 3, 2021

85
HEALTH SCORE

One Liner
72 y.o. male with CHF, hypertension, back pain, obesity and remote hx of MI.

Social Liner
At risk for social isolation: wife of 47 years passed in February 2021, daughter moved 100 miles away and has a small social circle. Financially stable. No housing concerns.

Vitals (Today)
BP: 152/87
HR: 104
O2SAT: 97%
WEIGHT: 267LBS
BMI: 38.7

Labs (05/21/2021)
HEMOGLOBIN: 12.1
RANDOM GLUC: 83
LDL: 97
EGFR: 64

Problem List
Active Resolved All

- Cardiac Rehabilitation**
Registered for cardiac rehabilitation in November 2021. Attended the first three sessions, then stopped going. Rehab staff reached out three times to follow-up with no response, so was discharged from the program.
- Congestive Heart Failure (CHF)**
Class II CHF since MI in 2019. Worsening of symptoms (especially shortness of breath) if not compliant with metoprolol. Has had issues with medication compliance over the years.
- Obesity**
BMI of 42. Patient less active in the past 4 years since the onset of his back pain. He is not interested in pursuing bariatric surgery.
- Hypertension**
Long standing hypertension. Has had issues with medication adherence in the past.
- Back Pain**
MRI in 2018 showed mild L4-L5 disc herniation with no nerve root compression.
- COVID-19**
Admission September 2020 for 5 days with respiratory distress. Discharged home without need for home oxygen.

Agenda
Today Goals Actions Taken Tasks Follow Up

- Happy Birthday**
- Refills: Ramipril, Atorvastatin**
- Annual Influenza Vaccination**
- CHF**
- Cardiac Rehabilitation**
- Adherence: Metoprolol**
- Social Isolation Risk**

Medications
All 4 Diabetes Depression Pain Discontinued

Drug	Dose	Refills Left	PT cost	Adherence
Metoprolol	100mg po BID	1	\$\$	⚪
Atorvastatin	40mg po OD	0	\$	🟢
Ramipril	5mg po OD	0	\$\$	🟢
ASA	81mg po OD	1	\$	🟢

Care Gaps
All 2 Screening DME Vaccination Refills

- 05/24/2021
Adherence: Metoprolol
Route to: Care Team
- 03/22/2021
Annual Influenza Vaccination
Recommend: Care Team

Social Determinants of Health
All 4 Housing Social Financial Food Access to Healthcare

- Celebrating Birthday today!
Route to: Care Team
- Depression Screening:** Wife of 47 years passed in February 2021
Route to: Psychology
- Social Isolation Risk:** Daughter moved 100 miles away, small social circle
Route to: Social Worker
- Housing:** Increasing difficulty with stairs due to back pain
Home Care

Patient Care Network
All 2 Pulmonology Nephrology Endocrinology Podiatry

- Cardiology** Dr. Caroline Goodheart 03/03/2021
- Nephrology** Dr. Jackson Greenfield 07/15/2020

Library

- Evidence Based Medicine
- Clinical Trials
- Societal Guidelines
- Health Literacy

Clinical Trial Eligibility
All 1 Stanford Rockefeller Yale UCSF Mayo

- Eligible for Clinical Trial**
Recently resolved COVID-19
Enroll

Outcome

- **Prototype validated:** Stakeholders agreed VSI could exist within Elevance's ecosystem and supported additional testing and iteration.
- **End-user testing:** Clinicians found the modernized functionality and adaptable interface highly appealing during prototype sessions.
- **Adoption signal:** The prototype was used in testing sessions to gather further feedback and inform feature prioritization for an MVP.

What I Learned / Next Steps

- Modern, adaptable UI patterns significantly improve clinician perception and willingness to adopt new tools.
- Persona-driven prototyping helped us catch real-world edge cases early and create more resilient interface flows.
- Early testing within the Elevance ecosystem revealed integration constraints and opportunities to streamline data access.

What I Learned / Next Steps

Through VSI, I learned how critical modern, adaptable UI patterns are in improving clinician perception and willingness to adopt new digital tools. Persona-driven prototyping allowed us to uncover realistic workflow challenges and address edge cases early in development. Additionally, designing within Elevance's data and technical ecosystem highlighted both integration limitations and new opportunities for creating connected experiences across applications.

In the next phase, the prototype was refined and **integrated into other Elevance Health ecosystem applications**, becoming a model for how patient-overview tools could work seamlessly with broader health data systems. VSI's visual design and interface logic were also featured in a **commercial for Elevance Health**, which I helped contribute to by preparing and adapting the prototype visuals for broadcast. Moving forward, we planned to build out cross-application interoperability, finalize the prioritized feature list, and conduct usability studies with additional clinicians to refine the experience even further.