Case Study: Designing the Cancer Profiling Experience at COTA Healthcare

Client: COTA Healthcare
Role: UX Strategist & Product Design Lead
Focus: Initial cancer profiling product for oncology RWD platform
Industry: Healthtech / Oncology Analytics

Overview

COTA Healthcare delivers real-world data (RWD) solutions that bring clarity to cancer care by unlocking insights hidden in clinical data. As the company expanded its oncology-focused platform, they needed a product experience that could surface **actionable cancer profiling insights** for providers, researchers, and pharma partners—without overwhelming them with clinical complexity.

I led the UX strategy and product design for **COTA's first cancer profiling product**, working alongside oncologists, data scientists, and engineers to create a usable, trusted, and scalable interface.

Objective

Create a digital experience that transforms complex oncology datasets into a **clear, interpretable profile of a cancer case**, helping users:

- Understand clinical attributes at a glance

- Explore longitudinal patient journeys

- Compare similar cohorts and treatment paths

- Leverage structured RWD for decision-making and discovery

Challenges

- **Highly technical data**: Oncology datasets are nuanced and dense—ranging from genomic markers to line-of-therapy decisions.

- **Multiple personas**: Researchers, data scientists, and providers all required different views of the same dataset.

- **Trust & accuracy**: UI and interaction design had to preserve the integrity of clinical data while making it more approachable.

- **No existing interface**: This was a first-of-its-kind experience at COTA, requiring vision-setting and foundational UX architecture.

Approach

1. Research & Clinical Deep Dive

- Interviewed oncologists, data analysts, and pharma clients to map out data needs and cognitive load.

- Identified the **most decision-critical data points** for profiling (e.g., diagnosis date, staging, mutations, therapies, response).

2. Information Architecture & UX Flows

- Structured the experience around a **case-centric timeline**, allowing users to follow the patient journey over time.

- Developed modular data views—treatment, genomics, labs, and outcomes—within a consistent layout.

3. Interaction Design & Prototyping

- Built mid- to high-fidelity prototypes in Figma for usability testing with real users.

- Introduced **progressive disclosure** to allow deep exploration without overwhelming the first view.

4. Visualization & Clarity

- Designed **visual indicators** for therapy sequences, adverse events, and mutations.

- Implemented clinical-grade color schemes and iconography for legibility and compliance.

5. Cross-functional Collaboration

- Worked closely with data engineering to understand pipeline limitations and align on what was truly feasible in MVP.

- Partnered with compliance teams to ensure HIPAA-ready design practices from the start.

Results

- **Successful internal launch** of the cancer profiling tool within COTA's RWD platform.

- Became the **baseline experience** for future oncology products, including comparative analytics and cohort search.

- Validated by pharma partners and clinical advisors during pilots—cited for **clarity, speed of insight, and data confidence**.

- Set the foundation for **COTA's next-gen patient journey visualizations**.

Key Takeaways

- **Designing for clinical clarity** doesn't mean oversimplifying—it means respecting cognitive workflows.

- In healthtech, **trust is a UX outcome**—every element must earn confidence through consistency and transparency.

- Starting with RWD requires **deep collaboration across data, clinical, and product** to turn insight into action.

Tools & Team

- **Tools:** Figma · FigJam · Jira · Slack · Miro

- **Collaborated with:** Clinical Advisors · Data Engineers · Product Managers · Pharma Liaisons