

Health + Wellness case studies

Digital Experience, Done Right

Leading organizations understand it takes more than a disparate collection of designs, data, and technology to create an experience that customers embrace; it's about how it all works together.

For the last 20 years, Phase2 has been at the center of it all, integrating processes, people, and systems.

As a result, our teams are intentionally organized around these areas of expertise:

Inspire.

Strategy & Planning

User Experience

Digital Design

Content Strategy

Accessibility / Inclusive Design

Brand & Identity

Optimize.

Customer Data & Insights

Personalization

Data Privacy & Regulation

Performance & Optimization

DevOps Engineering

Build.

Content Management Systems

Multisite Platforms

Design Systems

Decoupled Architecture

Customer Data Platforms

Commerce

Salesforce Platform Development

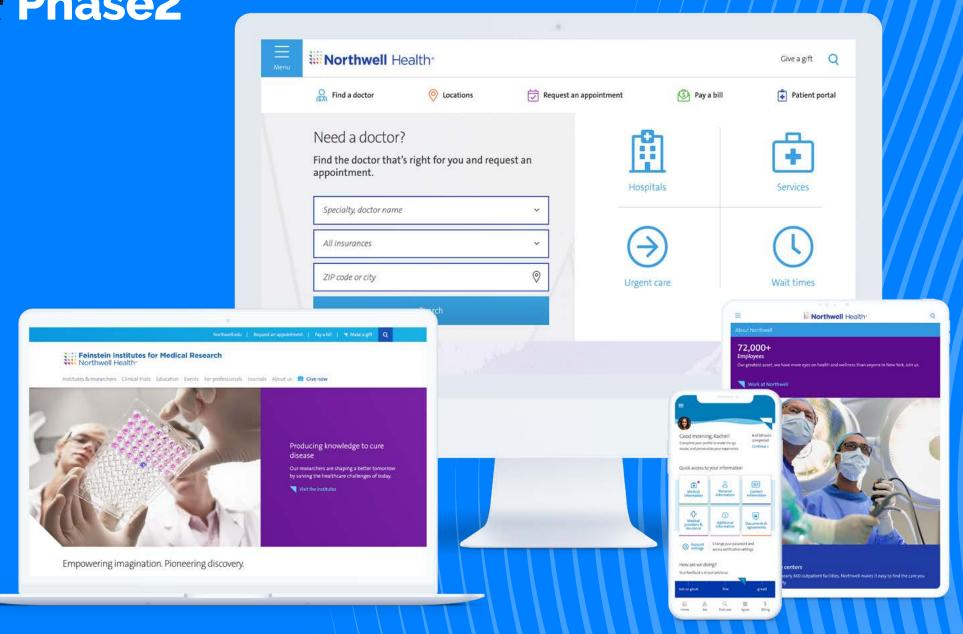
Mobile & Native App Development



CASE STUDY



Northwell Health & Phase2



CASE STUDY: NORTHWELL HEALTH

The Industry Standard in Digital Patient Experience

- Digital Strategy
- UX
- Design
- Drupal 8
- Multisite Consolidation

- 3rd Party Integrations
- Content Strategy
- Personalization
- Native App Development

Every hospital and healthcare provider in the U.S. is exploring how to sustainably grow their business systems while still offering personalized and high touch patient experiences. Patients are expecting seamless and convenient healthcare with the ability to access information anytime, anywhere.

One of the largest health systems in the country, New York-based Northwell Health is embracing these challenges and turning them into a competitive advantage.

Phase2 and Northwell Health are driving a multi-year, multi-project overhaul of the entire Digital Patient Experience (dPx) that will impact 800 outpatient facilities, 23 hospitals, and over 72,000 members of staff.

dPx by the Numbers:

major programs running concurrently to deliver >250 features

different tests, trials, and focus groups with over 4,000 patients

60,000

registered dPx users

20,000+

app downloads

40,000+

patients registered with a new biometric ID

Hi, Rachel!

Welcome to the Northwell Health app.





The Northwell Health dPx Vision

The dPx journey began with select leaders at Northwell Health who shared a vision for delivering an exceptional patient experience.

Their vision was one simple, seamless experience, orchestrated to improve the lives of providers and patients alike powered by an interconnected network of systems and services.

To achieve this vision, they needed to align all of the tools in their digital ecosystem on a single platform and take full ownership of the patient journey. Here's what the transformation needed to look like in the everyday interactions:

FROM TO



Scheduling only when the call center is open

Direct appointments, rescheduling and cancellation, 24/7 online



Confusing bills and pricing

 Consolidated payment portal and personalized price estimates



Endless paperwork and no one remembers your information

 Digitized forms feeding a single profile



Being treated as a collection of symptoms and diseases

 Patient-controlled profiles to share what's important to you



Services delivered only in Northwell buildings

On demand, in-home and video care options



Disconnected services that are complex and intimidating

 Guided care navigation and customer support

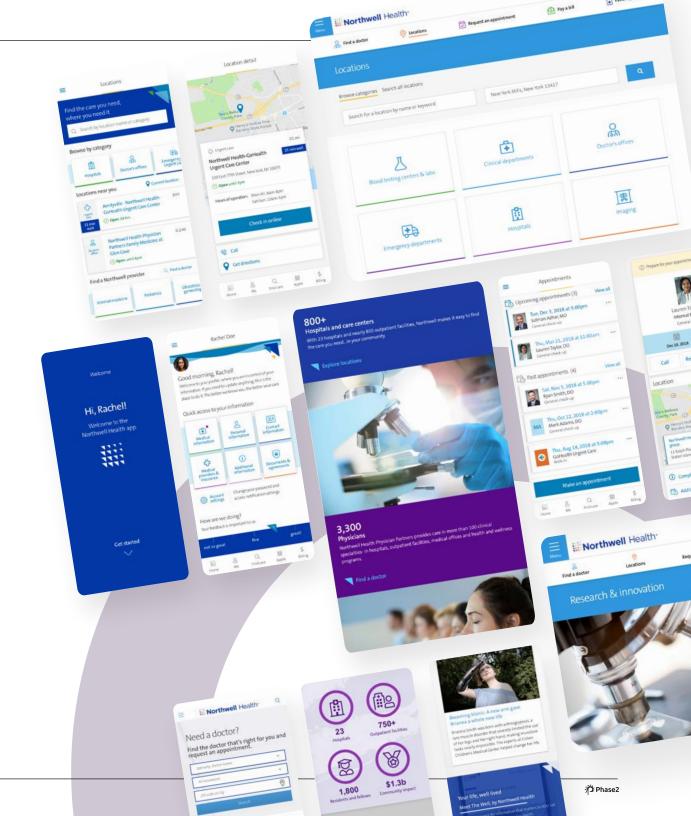
CASE STUDY: NORTHWELL HEALTH

Incremental Improvements, Continuous Releases

To make this transformation a reality, Phase2 guided Northwell Health in the technology solutioning, from architecture through implementation. From designing a patient-centered design system and intuitive UX to the integration of over 30 systems (single sign-on, facial recognition, booking, billing, and EHR), Phase2 created one cohesive patient journey anchored by the website and mobile app.

Part of Phase2's product approach is to eliminate "big bang" releases. By incrementally releasing features and foundational elements, Northwell Health was able to test, learn, and refine the experience throughout the product life cycle. Each iterative launch moved Northwell Health closer to a fully custom mobile app for both Android and iOS, which became complete and went live in January 2020.

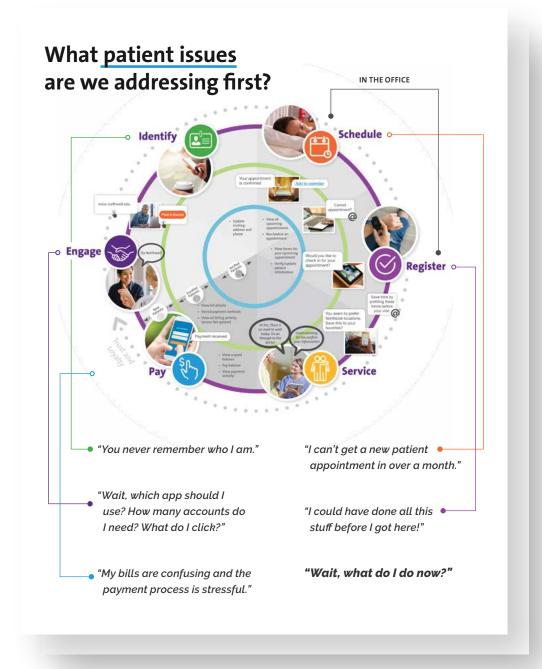
CASE STUDY: NORTHWELL HEALTH

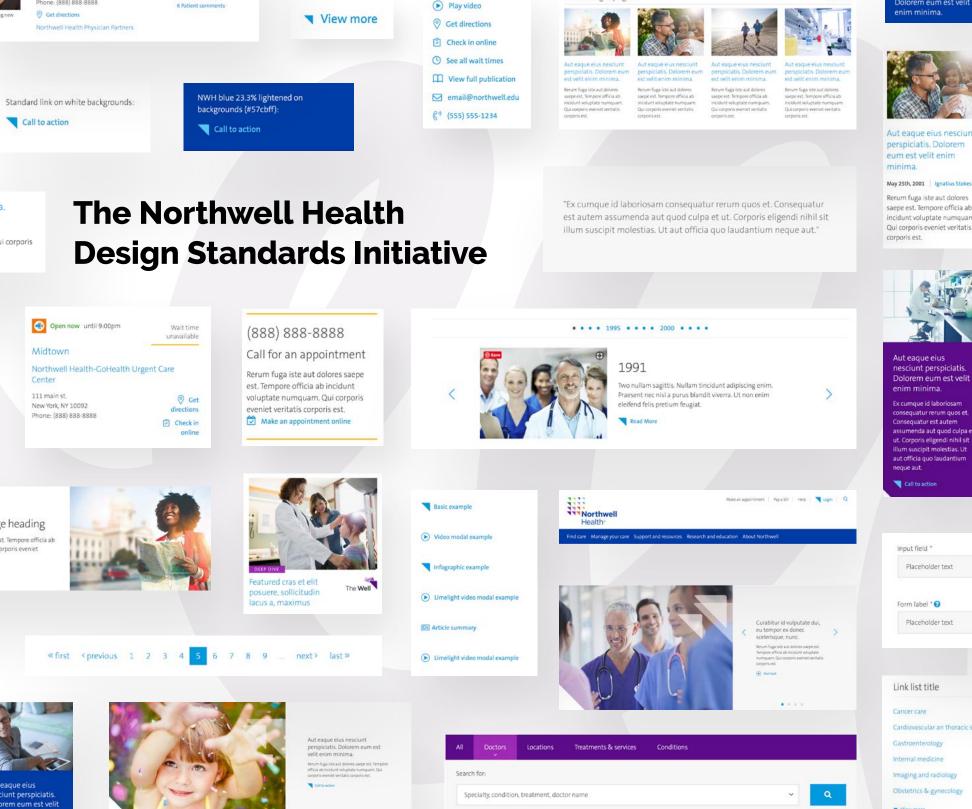


Human-centered Research & Assessment

Throughout the Northwell Health dPx project, members of the Phase2 UX team shadowed the experiences of patients, staff, and physicians. By observing realtime behavior, the team was able to evaluate patient check-ins, follow-up, billing, and support. Hands-on research was crucial in creating a relevant and effective enterprise application. This practice proved invaluable for the overall design and assisted in garnering support from different departments and facilities.

At the conclusion of several observational research sessions, Phase2 produced a comprehensive report and roadmap to aid in the prioritization and direction of Northwell Health's digital experience enhancements. The report served internal design and development teams as they updated northwell.edu and introduced additional sites to the new platform.





Phone: (888) 888-8888

6 Patient comments

Dolorem eum est velit enim minima.

Aut eague eius nesciunt perspiciatis. Dolorem eum est velit enim

Rerum fuga iste aut dolores

saepe est. Tempore officia ab incidunt voluptate numquam. Qui corporis eveniet veritatis



Aut eaque eius nesciunt perspiciatis. Dolorem eum est velit enim minima.

Ex cumque id laboriosam consequatur rerum quos et Consequatur est autem assumenda aut quod culpa et ut. Corporis eligendi nihil sit illum suscipit molestias. Ut aut officia quo laudantium neque aut.

Call to action

Input field * Placeholder text Form label * 2 Placeholder text

Link list title

Cancer care

Cardiovascular an thoracic services

Gastroenterology

Imaging and radiology

Not a link

₹ R€ Northy

47 Hosp care

May 25th, 200

Rerum fuga incidunt vol

veritatis con

Long Islan 270-05 76th

Phone: (718 O Get dire Rerum fuga

veritatis cor

Not a link

Orthopaedic

Pediatrics

Urgent care l

Imaging and

Component **Based Design Done Right**

Northwell Health released their new brand via a multi-million dollar marketing campaign, kicking off the launch with a Super Bowl ad placement. Though much attention had been paid to offline brand standards, when the dPx project began the new brand artifacts had not yet been translated to the digital realm.

Phase2's mandate was to empower Northwell Health's digital teams to freely publish and create new properties while maintaining brand integrity across their ever-growing network. Built on the findings of the UX Review and Assessment report, Phase2 created a digital style guide and companion pattern library to enable intentional, high-quality experiences at scale.

The style guide is based on Northwell Health's brand identity and translates the newly established design standards in a digital format. This became known

Narrative title Narrative lock-up large heading Rerum fuga iste aut dolores saepe est. Tempore officia ab incidunt voluptate numquam. Qui corporis eveniet

<div class="container"> <div class="row"> <div class="col-md-12"> <div class="row">



rd card--full-width"> <div class="card_media col-sm-6 c</pre>

<time class="byline__date</pre>

<div o

<img src="../../../images/st</pre>

as the **Design Standards Initiative** (DSI), leveraging Pattern Lab as the foundational technology. This component library provides an additional layer of definition for components, reusable pieces paired with production-ready code snippets, and integration into

the Drupal CMS theming layer.

Today, teams grab design elements "off the shelf" from the digital style guide and build new pages with pre-approved branded design. The style guide allows Northwell Health to easily maintain a

<div class="card_content</pre> col-sm-8 col-md-6

<div class="card__title"> href="http://www.northwell.edu" >Placeat explicab placeat omnis. Expedita est ab dolorem vero atqu

25th, 2001</time> <span class="byline__author)</pre> <div class="card_summary type</pre> saepe est. Tempore officia ab incidunt voluptate veritatis corporis est.</div> <div class="card_taxonomy"> <div class="taxonomy">

<div class="taxonomy__label"><i class="fas fa-t</pre> <div class="taxonomy__items"> link">Spine <a href="http://www.northwell.edu" clas</pre>

<div class="byline">

consistent look and feel across all of their sites and services. This design system now serves as a reference point for all web design work across the organization.

NORTHWELL HEALTH **Design Standards** Style Guide →

NORTHWELL HEALTH Design Standards Pattern Lab →

CASE STUDY: NORTHWELL HEALTH **科Phase2** **NORTHWELL CASE STUDY**

Transforming Healthcare by Product Family

Phase2 coordinates a team of over 100 people and manages several third-party vendors to make the Northwell Health dPx vision a reality. The initiative holds multiple workstreams, each with its own nuances and intricacies, and each delivering impact to both the overall patient experience and to the system's bottom line.

CASE STUDY: NORTHWELL HEALTH



Physician Search and Appointment Booking



Northwell Health prioritized the overhaul of their online appointment booking process because finding the right provider can be a stressful task during an already trying time for patients and caregivers.

Data access and relevance is the most important element of the search and selection process, but it is also critical to understand how users actively and logically search.

To create Northwell Health's best-inclass search experience, Phase2 worked alongside the internal teams to **develop** a middleware Data Management Layer (DML). The DML enables collection, cleaning, and augmentation of data from third party systems. For instance, associating search terms like "knee pain" with orthopedists, or displaying up to date appointment bookings to a doctor's profile, help to refine the experience for the patient to get relevant results the first time.

Because the DML manages changes and organizes all search data, Phase2 also helped establish an ongoing governance process to enable physicians to request changes or additions and navigate the necessary approval process.

With the DML, any patient search on any of Northwell Health's channels is no longer limited by what's stored on a third-party doctor's, specialty center's, or practice's system. The result is an aggregation that synthesizes information from many sources to display the most accurate results for patients.

Custom Booking Experience

- Realtime physician availability
- Integrated pre-appointment paperwork
- "Share a Provider" Digital Referrals to boost intrasystem acquisition

IMPACT



5-12 minutes of staff time saved per online booking

Balance Increased Access with Security

A central objective of the Northwell Health dPx project was to find a balance between greater patient access, personalization, and information sharing with security concerns and HIPAA/HITECH compliance. Phase2 developed a layered approach that unlocks a deeper experience with each level of identity verification.

Anonymous users can find care by specialty, condition, location, and insurance coverage. They can read doctor profiles and reviews and pay a bill online - issued from any facility within the Northwell Health system.

Once users have verified a Northwell Health account (email and password), they are able to manage profile information, receive personalized content, and access the mobile app. For full access, Northwell Health integrated with Experian to verify patient identity and link digital account profiles to the right patient record. Patients

can view past and future appointments, outstanding bills, and completed forms.

The system is accessed with a seamless biometric and single sign-on (SSO) system, so patients are no longer required to remember multiple passwords for different providers.

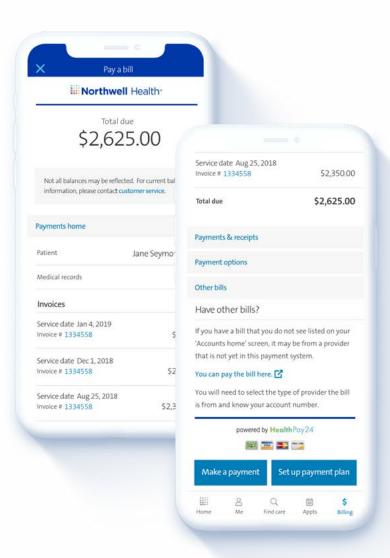
Phase2 actively worked with Northwell Health's HIPAA compliance team to review integrations of the mobile application and authenticated desktop experience to ensure the protection of patient PHI and adherence to HIPAA guidelines and statutes.

IMPACT

Launched 'Single Northwell Login' with nearly 50,000 accounts created



Billing & Payments



To deliver a better billing experience for patients, Northwell Health enlisted the experts at Phase2 to help them redesign the entire process. We started by stepping into the patient's shoes via interviews and usability testing. How do patients feel when they receive a medical bill in their mailbox? What are they thinking as they read the bill? What do they do once receiving the bill?

Once the current state of the patient billing experience was fully understood, tangible needs emerged. Patients should be able to:

- Understand the bill
- Pay the bill (faster!)
- Use self-service help/ support options
- Recommend Northwell Health to their friends and family

In order to achieve these goals and to alleviate confusion often associated with medical billing, Phase2 redesigned the paper and digital statements. The new notifications removed medical and technical jargon and emphasized critical information. The language shifted to carebased language and provided clear instructions and payment options.

Northwell Health's online payment center, accessible via the authenticated single sign-on (SSO) on their website and mobile app, is a one-stop solution for patients to not only pay their bill, but also see billing and payment history, find financial assistance, or save a credit card on file for future use. It's a system-wide portal that handles patient billing for all of Northwell Health's hospitals, labs, ambulances, and outpatient facilities.

IMPACT

8.5 minutes of staff time saved per digital billing transaction

Content Strategy

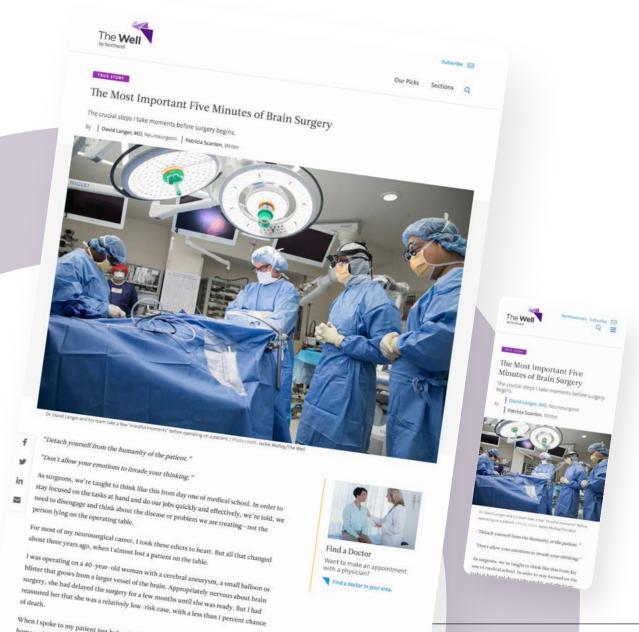
The Well: Consumer, Not Clinical

The new generation of healthcare providers recognizes the need to be a part of patients' lives beyond when they require medical attention, striving to be the go-to resource for health and wellness information. To accomplish this, Northwell Health needed to move beyond traditional brand awareness into community engagement. Operating with the understanding that all brands are publishers, they moved to launch a new content brand. The Well was born.

The Well is an editorial platform and media distribution channel focused on providing high quality content aimed at reducing stress, providing real answers, and building confidence for customers and new audiences alike. It is the fastest-growing publication produced by Northwell Health and is spurring unprecedented growth in search, social, and referral traffic to the health system. As a result, campaigns are reaching up to 20x more people than before the channel launch, using the same level of financial investment.



Content Strategy



Phase2 worked with Northwell Health to define and design a new 'sub-brand' identity and design language. The Well combines content and design to expand and deepen brand awareness and community engagement initiatives.

It's one thing to create an emotive brand and visual identity, but quite another to ensure that it translates to improved performance of foundational business KPIs. The Well had to deliver on specific performance indicators, including:

- Reducing content creation costs
- Driving web conversions
- Increasing media spend efficiency
- Boosting email database growth
- Increasing referral traffic to Northwell.edu

IMPACT

 \downarrow

735,000+ story views, referring 75,000+ potential patients to Northwell.edu within 6 months of launch

When I spoke to my patient just before her surgery, we discussed when she would go home and how presumably straightforward the procedure was. We talked about "creative" haircut we'd be giving her, and she sput.



I know Northwell from the inside out, but in being one of the first beta testers, the app exceeds even my high expectations. Transforming the digital patient experience is critical to Northwell's ability to provide the best care."

Michael J. Dowling
CHIEF EXECUTIVE OFFICER OF NORTHWELL HEALTH

The App as a Gateway

Through the culmination of multiple custom development projects and unified digital systems, Northwell Health's new app gives patients full control of their healthcare journey in an on-brand and industry-leading user experience.

With the initial release, Phase2 prioritized the essentials of patient experience such as physician search, booking and managing an appointment, preappointment form filling, medical record access, and billing.

Initial app release features include:

Create Your Profile and Personalize Your Experience

- » Tell us about yourself
- » Update and view patient and insurance information
- » Manage account settings and preferences
- » Access FollowMyHealth to view your medical records

Plan Care With Doctor Profiles, Reviews, Insurance Info and More

- » Search for top doctors and facilities near you
- » Read reviews from actual Northwell patients
- » Get info on accepted insurance plans
- » Find hours, locations and directions

Book and Manage Appointments On The Go

- » Schedule new appointments for the times and locations you prefer
- » Reschedule and cancel appointments
- » View past and upcoming visits

Make Payments in Northwell's Secure Payment Portal

- » View and pay bills
- » See payment history
- » Find financial assistance
- » Save a card on file for future use

Impact Now And In The Future

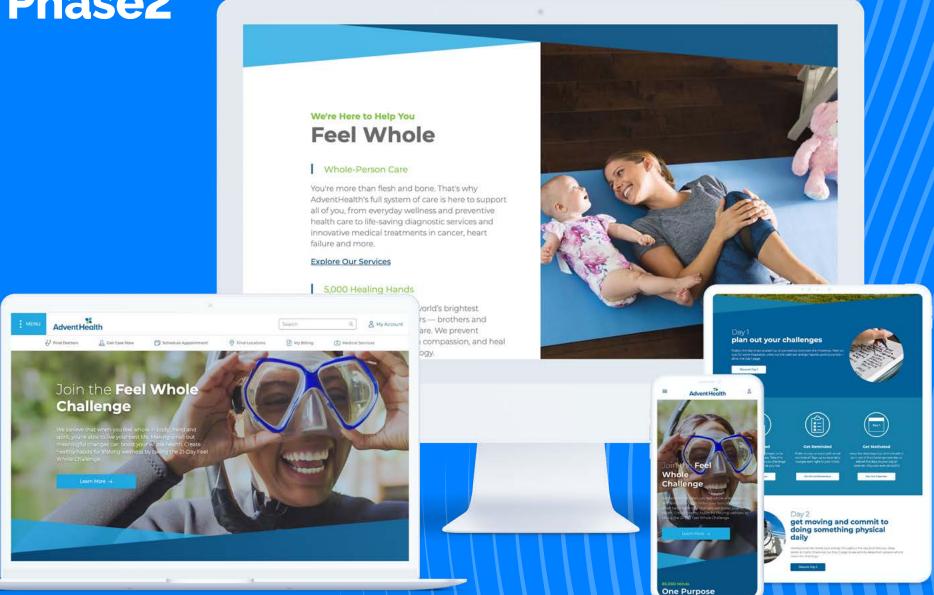
The dPx program started with a small team that set out to deliver a better experience for patients and with the help of Phase2 has grown into a 100+ member collaborative team whose impact is felt system-wide.

Northwell Health truly takes ownership for the patient experience with healthcare records, billing, and doctor advice, now literally in the palms of the patient's hands. The dPx initiative helps deliver the best care to patients through connectedness, accessibility, and personalization, but also has had a tremendous business impact:

- \$35 MILLION saved in form processing costs
- 5x reduction in content creation costs
- 80,000 hours of staff time saved
- \$80 MILLION + collected through new unified billing portal



AdventHealth & Phase2



CASE STUDY: ADVENTHEALTH

With over 50 hospital campuses in 9 states, AdventHealth is one of the largest provider networks in the U.S.

But with several independently branded hospitals and hundreds of different online experiences under the parent system, they had an identity problem.

To become a nationally recognized healthcare leader they needed to unify under a new brand and a single digital destination. Phase2 was tasked with architecting, building, and migrating AdventHealth's disparate collection of websites to a new Drupal platform.

On January 1, 2019, as Adventist
Health system rebranded to
AdventHealth, the new adventhealth.
com platform launched. It brought
1,200 facilities, 796 websites, and
multiple physician search and booking
systems into a single, seamless
digital front door supported by a
design system for their new brand.

The results, so far, speak for themselves:

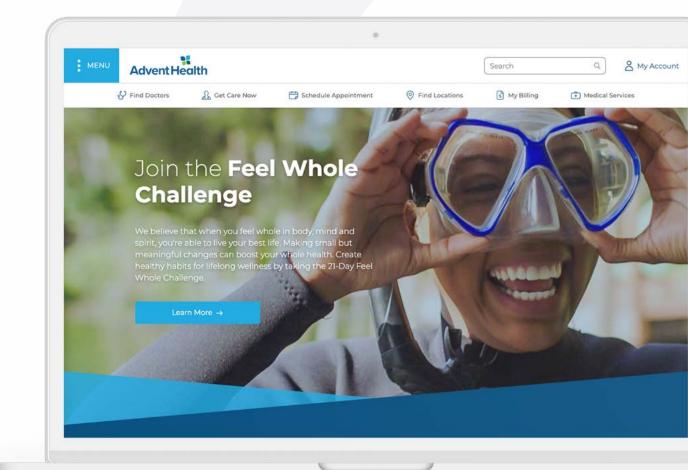
- 17% increase for online lab scheduling YoY
- 24% increase for online mammogram scheduling YoY
- 213% increase in appointment requests
- \$12.8M increase in organic search value
- 176% increase in search impressions
- 23% YoY increase in users

An 'Open' Door To Whole-Person Health

AdventHealth's new platform was designed to put the customer first. From appointment booking to billing, AdventHealth and Phase2 worked together to create an industry-leading tech stack and website platform.

We prioritized open source technologies, such as Drupal 8, and selected systems based on how well they would integrate and share data with the overall platform. Where a third-party solution didn't deliver the exact experience AdventHealth required (i.e. physician search) we worked to augment and, in some cases, develop a solution from scratch.

By the time the platform launched, we whittled 28 different content management systems, 8 different physician search experiences, and 5 different CRM platforms down to a single Drupal 8 CMS, an system-wide Salesforce CRM, and an on-brand and highly customizable physician search and appointment booking experience.



National Site, Local Content

With over 50 hospital campuses joining the new platform, we had to balance the need for a unified AdventHealth brand while still giving local hospitals and facilities the ability to communicate effectively to their own markets. It was also paramount that customers were seamlessly guided from AdventHealth. com to local facility pages that specialize in the procedure or treatment they needed. As such, we made sure that each facility could customize their section of the site from within Drupal, giving them control over the following:

The ability to keep their local service and service line names, instead of having to adopt the national AdventHealth versions. For example, making sure that a search on AdventHealth.com for 'weight care' surfaces an Orlando facility's 'bariatric and weight care'

service line page, or the 'gastric bypass surgery' page and physicians of another facility near that customer.

Customizable pages with headers featuring content and sections relevant to each facility. Some facilities offer classes, while others do not, and not all facilities offer all service lines, etc.

Customized default physician search parameters. We integrated physician search into the Drupal CMS so that each facility could decide to show, for instance, all physicians that work in the AdventHealth network (good for AdventHealth. com), or only display those physicians credentialed at the specific facility. Also, each facility could set

their own default search radius, with facilities located in areas without other Advent hospitals nearby preferring a larger radius, while those in areas that have many locations close together want a tighter default search radius.

Lastly, the data displayed on the site also had to be as up-to-date as possible so that customers weren't seeing inaccurate availability or appointment information. We devised solutions that cached or reduced some API calls and loaded others via Javascript, to keep the data fresh and page load times fast.

& My Account



Access

Customers want to find the right physician and book an appointment when and where it's convenient for them. Because of this, AdventHealth and Phase2 decided to rethink the look and feel of their physician search and booking experience.

From Kansas City to Tampa, customers now have a consistent yet highly customizable search experience where they can find providers and physicians based on a number of criteria, including distance, name, availability, and services offered/conditions treated. They also have the ability to filter physicians based on those that are accepting new patients, what insurance they accept, what languages they speak, and their schedule availability.

We introduced real-time appointment availability and booking, as well as physician bios and ratings, integrating with AdventHealth's ATLAS middleware layer to pull data from the Athena EHR physician bio and credentialing systems into their Drupal CMS. For those physicians not yet participating in open scheduling, a new universal form system using Formstack and Salesforce seamlessly passes

CASE STUDY: ADVENTHEALTH

Advent Health A Get Care Now (My Billing Find Doctors Q Cardiovascular Disease customer information to call center staff. 9 34683 connecting patients with the right care. Choose insure in the right location, at the right time. Reason for Visit New Patient 9 doctors found for "Cardiovascular Diseas It was crucial that each component of \$ Availability the new search and booking system Online Booking Available integrate and share data, giving Patient Age Groups Seer AdventHealth's digital team the ability to All age groups \$ track customers as they moved from Male (9) physician search, to website landing Accepting New Patients page, and through to booking, Yes (9) Languages Call the Office allowing them to optimize All languages the customer's journey and . Medical Services continuously enhance the Equbal E Kalani, MD All services platform's performance. 1501 S Pinellas Ave 727-943-2880 Mar 22 - Mar 28 🛗 828 693 9632 Advent Health Filter By Facility Type AdventHealth New Patient Express Care Availability Online Booking Available (1225) Centra Care Kids 0 407-303-2200 Today (31) Institute: [] Imaging 2-3 Days (175) [] Lab 4-5 Days (164) Home Care 1-2 Weeks (183) Hospice Care Skilled Nursing 2-3 Weeks (181) Pharmacy Patient Age Groups Seen Wellness Centers Apopka, FL 32703 All age groups Q 407-609-7000 Rehabilitation Service \$ Surgery Centers + Location Details

Empowering Marketing and Patient Care Teams

Throughout the project, we asked ourselves one simple question: "How do we empower Advent's digital teams, and get technology out of the way?" We used Pattern Lab to create a componentbased design system, giving AdventHealth's marketing team a library of reusable components to create new pages and sites with ease. Their team now has the freedom to work independent of developers, and can build with confidence that the user experience is always on-brand and consistent across the platform. Next, we broke the Drupal editorial interface into four distinct sections, creating unique 'products' for different marketing needs and teams.

CUSTOM CAMPAIGN MANAGEMENT (CAMP)

Used for small (usually 1-page) landing page-type destinations with a unique header or purpose, such as Breast Cancer Awareness Month, press releases etc.

MICROSITES

Using design components and blocks, small sites with multiple pages and/or third level domain needs that can quickly be assembled — such as the Global Robotics Institute.

GLOBAL MARKETING

For general, Advent-wide marketing initiatives.

INDIVIDUAL FACILITIES

For individual facility marketing teams to manage their sites.

This unified marketing toolset gave AdventHealth the ability to create everything from simple site modifications to full microsites and custom landing pages while leveraging their design system to ensure everything they created was brand-safe.

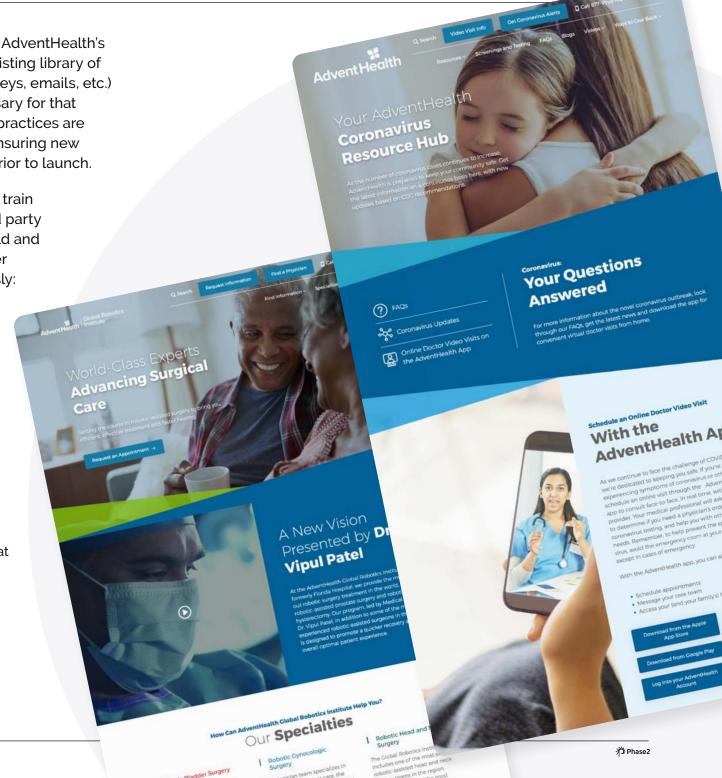
By using Drupal as the platform's hub, AdventHealth's marketing teams can tap into a pre-existing library of materials (guides, questionnaires, surveys, emails, etc.) customizing only the elements necessary for that particular campaign. As a result, best practices are shared throughout the organization, ensuring new campaigns are effectively optimized prior to launch.

Furthermore, it eliminated the need to train the marketing team to use another 3rd party tool. The marketing team can now build and launch sites in a matter of weeks rather than the many months it took previously:

- Site builds went from 6 9 months to under 4 weeks
- An individual institute site used to take 5 - 8 months to build out, now down to 4 weeks
- An entire hospital website can be built out in 3 - 6 weeks
- Three new hospital sites added to the platform in 2019 alone

CASE STUDY: ADVENTHEALTH

 No developer resources are necessary for new site builds, freeing up the type of resources that are traditionally hard to plan for



We're Phase2. We Know Healthcare.

From innovating digital ecosystems for patients, providers, and employees, to building mobile, interconnected patient experiences, to creating compelling, frictionless interfaces, our knowledge of health systems is comprehensive—encompassing every facet of an organization's day-to-day.

Most importantly, we understand what it takes to transform the patient health journey from a disjointed series of interactions to an easy, intuitive, and enriching experience.

We think of our healthcare clients as kindred spirits and strategic partners. That's why we have a dedicated health and wellness practice with experts that work across the industry with companies and systems including:













GUNDERSEN HEALTH SYSTEM Genentech

