Patient Journey Maps

Three methods for better understanding patient pathways and choices
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Introduction

Patient journey maps are analyses that help provider organizations strengthen their patient acquisition and retention strategies by using information on patient needs, experiences, and behaviors to identify opportunities for improvement. This tool puts the patient at the center of strategic planning processes, using quantitative and qualitative data to understand patients' care pathways, care experiences, and health care utilization patterns. Journey mapping can answer questions such as:

- What are consumers' preferences when choosing providers?
- How do consumers access our system?
- What are the biggest points of dissatisfaction in patients' experiences at our facilities?
- Where is our system experiencing patient leakage?
- Why are patients going to our competitors for certain services?

There are three common types of patient journey map analyses:

1. **Patient Experience Journey Map**: Identifies patients' points of satisfaction and dissatisfaction when they interact with your health system.
2. **Longitudinal Data-Driven Journey Map**: Uses longitudinal claims data to provide an aggregate view of your patients' health care utilization patterns.
3. **Care Pathway Journey Map**: Maps patients' behaviors and decision drivers along the journey of searching for care, selecting a provider, utilizing provider services, and returning for subsequent care.

Although all of these patient journey mapping analyses have the same purpose (i.e. to support growth and retention efforts), they vary in methodology used as well as in output. Choosing the most appropriate type to incorporate into your strategic planning depends on the questions you are trying to answer and your organization’s resources and capabilities to conduct the analysis. These differences are summarized in the table below:

<table>
<thead>
<tr>
<th>Type of Patient Journey Map</th>
<th>Goal</th>
<th>Type of data used</th>
<th>Data source</th>
<th>Resources and capabilities required</th>
<th>Time and resource intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Experience Journey</td>
<td>Improve patient experience; increase patient acquisition and retention</td>
<td>Qualitative</td>
<td>Interviews; focus groups; observation</td>
<td>Capabilities to conduct patient interviews and focus groups</td>
<td>Low</td>
</tr>
<tr>
<td>Longitudinal Data-Driven</td>
<td>Increase patient acquisition and retention</td>
<td>Quantitative</td>
<td>Longitudinal claims</td>
<td>Access to longitudinal claims data; capabilities to store, manage, and analyze data</td>
<td>High</td>
</tr>
<tr>
<td>Care Pathway</td>
<td>Increase patient acquisition and retention</td>
<td>Qualitative and quantitative</td>
<td>Surveys; focus groups; interview</td>
<td>Capabilities to design, administer, and analyze survey data; capabilities to conduct patient interviews and focus groups</td>
<td>High</td>
</tr>
</tbody>
</table>

This briefing reviews how each patient journey map type can be used to support your strategic planning along with key considerations and best practices for navigating common challenges when conducting these analyses. We’ve also included case studies illustrating common uses for each journey.
Three Patient Journey Maps
Patient experience journey maps

Identify patients’ points of satisfaction and dissatisfaction when they interact with your health system

End Goal
To inform patient experience improvement and retention efforts

Sample Questions Answered

- How can we improve patients’ satisfaction with the care they receive at our facilities?
- How can we improve patients’ interactions with our health system before, during, and after the care episode to gain their loyalty?

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Use one or more of the following data collection methods to understand the thoughts, feelings, and actions of your patients when they interact with your health system:</td>
<td>• Points of satisfaction and dissatisfaction during patients’ interactions with your health system’s facilities and staff</td>
</tr>
<tr>
<td>– Patient focus groups</td>
<td>• Level of dis/satisfaction at each of these points to prioritize key pain points</td>
</tr>
<tr>
<td>– One-on-one patient interviews</td>
<td>• Reasons why patients are satisfied or dissatisfied with their experiences to identify opportunities for improvement</td>
</tr>
<tr>
<td>– Staff focus groups</td>
<td></td>
</tr>
<tr>
<td>– One-on-one staff interviews</td>
<td></td>
</tr>
<tr>
<td>– Patient observation</td>
<td></td>
</tr>
</tbody>
</table>

Best Practices and Key Considerations

- Scoping
  • Generate hypotheses to test before collecting patient data. Conduct interviews or focus groups with staff or look at patient satisfaction results to identify potential experience issues and hypotheses to test.
  • Start by mapping journeys in specific care sites (e.g. journey through the ED) or care episodes within service lines (e.g. journey through joint replacement surgery) to prevent data overload.
  • Focus questions around patient experience issues that are unique to specific service lines and facilities when conducting multiple journey mapping analyses.

- Data Collection and Analysis
  • Use surveys to ask straightforward questions about patient behaviors and levels of satisfaction and dissatisfaction.
  • Use interviews and/or focus groups to generate detailed information about the thoughts, emotions, and reasons behind patients’ satisfaction and dissatisfaction.
  • Ask targeted and specific questions grounded around real life patient experiences instead of hypothetical and open-ended questions to generate more meaningful and actionable data.
  • Use affinity diagramming to identify patterns in qualitative data (see case study for more details).

Source: Market Innovation Center interviews and analysis.
Example of a patient experience journey map

Dartmouth-Hitchcock
Academic health system with large multi-specialty group practice • Lebanon, NH

- Mapped patients’ experiences with the community group practice at all points along their primary care journey to uncover opportunities to address experience issues and better meet patient needs
- Journey map findings were used to develop departmental projects and performance goals for staff

Objective
To understand the totality of the patient experience in primary care to identify opportunities for experience improvement

Process
1. Laid out high-level workflow of the typical primary care patient visit process
2. Evaluated current state of patient satisfaction using ambulatory survey data
3. Conducted staff workshops to hypothesize strengths and pain points within each step of the visit process
4. Identified categories of potential patient satisfiers and dissatisfiers using affinity diagramming
5. Conducted 30, one-on-one interviews with patients to validate and add to the identified categories
6. Conducted two patient focus groups to determine the intensity of and reasons behind the satisfiers and dissatisfiers
7. Created a visual representation of patients’ primary care experiences at Dartmouth-Hitchcock

What is affinity diagramming?
Affinity diagramming is a tool for quickly analyzing large amounts of qualitative data. This method involves organizing related facts into distinct, naturally-forming groups. Typically, facts are written down on sticky notes and sorted into high-level categories and sub-categories. Then, the categories are prioritized by level of importance or severity to identify action items or next steps.

Snapshot of Journey Mapping Findings

<table>
<thead>
<tr>
<th>Satisfiers</th>
<th>Dissatisfiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenient scheduling</td>
<td>Delays in transfer of patient records</td>
</tr>
<tr>
<td>Courteous staff</td>
<td>Patients don’t feel informed</td>
</tr>
<tr>
<td>Clean and comfortable waiting room</td>
<td>Long wait times</td>
</tr>
<tr>
<td>Welcoming and professional staff</td>
<td>Lack of clear instructions</td>
</tr>
<tr>
<td>Good physician bedside manner</td>
<td>Long wait times</td>
</tr>
<tr>
<td>Clear next steps</td>
<td>Poor communication</td>
</tr>
<tr>
<td>Informative follow-up phone call</td>
<td>Long wait to receive test results</td>
</tr>
<tr>
<td>Timely scheduling of next appointment</td>
<td>Confusing billing</td>
</tr>
</tbody>
</table>

Source: Market Innovation Center interviews and analysis.
Longitudinal, data-driven journey maps

Use longitudinal claims data to provide an aggregate view of your patients’ health care utilization patterns

End Goal: To inform patient acquisition and retention efforts and referral management

Sample Questions Answered

- Where can we increase access points to attract more patients?
- Where can we prevent patient leakage?
- Which physicians do we target for relationship building?

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Analyze longitudinal claims data to look at patients’ care utilization upstream and downstream of a selected index event (i.e. the primary inpatient or outpatient service related to the care episode).</td>
<td>• What services your patients are using and which specialists/facilities they are seeing inside and outside of your system</td>
</tr>
<tr>
<td>• Define parameters for selecting claims data:</td>
<td>• Identification of:</td>
</tr>
<tr>
<td>- Type of care episode (e.g. bariatric surgery)</td>
<td>- Points of service at which patients enter your system</td>
</tr>
<tr>
<td>- Timeframe (our general suggestion is 12 months total—for example, six months before and six months after a care episode)</td>
<td>- Points of service at which patients leave your system</td>
</tr>
<tr>
<td>- Market</td>
<td>- Points of service at which patients return to your system</td>
</tr>
<tr>
<td>- Patient characteristics (e.g. age, gender)</td>
<td>- Physicians that refer patients to providers outside of your system</td>
</tr>
<tr>
<td>- System’s employed doctors and facilities</td>
<td></td>
</tr>
</tbody>
</table>

Best Practices and Key Considerations

Scoping
- Focus your analysis around a specific type of provider-to-provider connection (e.g. primary care provider to gastroenterologist), patient segment, or type of care episode to simplify your analysis.
- Map care episodes involving a standard set of related services before and after the index event, especially where you are losing a large share of inpatient or outpatient spend for high-volume services (see next page for example).
- Ensure the sample size is large enough to produce meaningful aggregate patient journeys.

Data Collection and Analysis
- Use data simplification mechanisms to distinguish between significant and irrelevant patient encounters.
  - Identify a control group for comparison (e.g. if the specialist is seen at a significantly higher rate in the cohort of interest than in the general population, then that event is considered meaningful in the analyzed journey).
- Layer in EHR data to your claims data set to generate a more robust patient journey.

Source: Market Innovation Center interviews and analysis.
Longitudinal data-driven journey mapping tool

Overview of Journey Mapping Tool

Uses longitudinal fee-for-service claims data from commercial payers to map patients’ journeys leading up to surgery.

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Process</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Type of surgery bundle</td>
<td>1. Identify index event (surgery) and all chronological events leading up to it</td>
<td>1. Patient journeys leading up to surgery</td>
</tr>
<tr>
<td>2. Market definition (i.e. ZIP codes)</td>
<td>2. Run statistical models to filter irrelevant events and define each patient journey</td>
<td>2. List of specialists visited and services rendered to the patient cohort of interest</td>
</tr>
<tr>
<td>3. Patient demographic characteristics (e.g. age group, gender)</td>
<td>▪ Compare specialists and services used by a control group of patients that did not receive the surgery of interest to the target cohort to remove any unrelated events</td>
<td></td>
</tr>
<tr>
<td>4. Affiliation data (e.g. employed physicians, owned facilities)</td>
<td>▪ Group remaining events by provider type, combining like providers (e.g. family medicine and internal medicine) if appropriate. Then, segment groups by affiliation.</td>
<td></td>
</tr>
<tr>
<td>5. Timeframe (e.g. 12 months before surgery)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Findings from Sample Longitudinal-Data Driven Journey Map

Visualization of the flow of patients into and out of the health system for the journey leading up to the index event—in this case, joint replacement surgery

- Each band represents patients moving from one stage of care to the next
- Thickness of band relates to the volume of patients
- Color of band relates to patient origin (i.e. whether patients are coming from employed physicians or health system-owned facilities)

1) Standard set of inpatient and/or outpatient services related to the surgery.
2) Forthcoming in 2019.

Source: Market Innovation Center interviews and analysis.

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Care pathway journey maps

Map patients' behaviors and decision drivers along the journey of searching for care, selecting a provider, utilizing provider services, and returning for subsequent care

**End Goal**
To inform patient acquisition and retention efforts

**Sample Questions Answered**

- How can we ensure that our system is top of mind for patients when current and future care needs arise?
- How can we increase the chances that patients choose our health system when they search for care providers?
- How can we improve patients’ experiences with our health system?
- How can we ensure that our system is top of mind for patients when future care needs arise?

<table>
<thead>
<tr>
<th><strong>Methodology</strong></th>
<th><strong>Outputs</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Survey, directly observe, and/or talk to patients to understand their decisions along the path to care, their experiences with the health system, and key factors that influence their provider choice and likelihood to return for subsequent care</td>
<td>• Consumers’ levels of awareness of your facilities/services when their care needs arise</td>
</tr>
<tr>
<td>• Define parameters for selecting patient cohort:</td>
<td>• How patients learn about your health system vs. competitors</td>
</tr>
<tr>
<td>– Market</td>
<td>• Why patients choose your health system vs. competitors</td>
</tr>
<tr>
<td>– Time since relevant care episode (our general suggestion is one year)</td>
<td>• Points of satisfaction and dissatisfaction in patients’ care experiences at your system</td>
</tr>
<tr>
<td>– Type of care episode</td>
<td>• Where and why patients drop-off</td>
</tr>
<tr>
<td>– Demographic characteristics</td>
<td>• Why patients chose a competitor over your system for future care needs</td>
</tr>
</tbody>
</table>

**Best Practices and Key Considerations**

**Scoping**

- Generate hypotheses to test before collecting patient data by analyzing claims data to identify areas of high leakage.
- Select consumer-directed services (non-emergent services offered by multiple providers in a market) to analyze.
- Narrow down your focus to specific care episodes within service lines to generate more actionable data, but ensure that the sample size is large enough to produce meaningful results.
- Include patients within and outside of your system in your analysis cohort to obtain perspectives of those who chose your competitors for their care.

**Data Collection and Analysis**

- Test your survey questions with a small group of patients to fix any issues before surveying the cohort of interest.
- Conduct patient interviews and/or focus groups to understand the reasons behind patients’ survey answers.
- Conduct patient interviews and/or focus groups for highly specialized services with small sample sizes.

Source: Market Innovation Center interviews and analysis.
Example of a care pathway journey map

**CASE EXAMPLE**

**Amethyst Health**

17-hospital system • Midwest

- Mapped patients’ urgent care journey to understand consumer triggers for getting care, drop-off points along their journey, and key drivers of loyalty
- Used findings to identify near-term opportunities to improve brand perception and the consumer search process

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**Overview of Journey Mapping Analysis**

Surveyed 1,820 consumers (both patients and non-patients) to understand their brand awareness, preferences, experiences, and reasons for choosing and staying with Amethyst Health or going to a competitor facility for urgent care. The below analysis summarized the scaled results from that survey.

Scaled journey map analysis to 100 patients

<table>
<thead>
<tr>
<th>Awareness</th>
<th>Search</th>
<th>Select</th>
<th>Experience</th>
<th>Retain</th>
</tr>
</thead>
<tbody>
<tr>
<td>57</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Were previously aware of Amethyst</td>
<td>Considered Amethyst in their search</td>
<td>Selected Amethyst for their care</td>
<td>Would recommend Amethyst after their experience</td>
<td></td>
</tr>
</tbody>
</table>

46 patients drop Amethyst from their search because:
- Location inconvenient | 25%
- Facility out-of-network | 17%
- Insurance company suggested another provider | 12%

3 patients would not recommend Amethyst after their experience:
- Overall dissatisfaction | 15%
- Dissatisfaction with website | 52%
- Dissatisfaction with scheduling | 38%

Health system brand perception is 49% positive (compared to 68% for competitor medical center)

Most common drivers in search/consideration:
- Visited facility previously | 30%
- PCP recommendation | 29%
- Search engines | 12%

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**Near-Term Opportunities Identified for Amethyst Health**

1. Develop multi-channel campaigns to promote brand awareness
2. Expand webpages with informative content
3. Address negative reviews and amplify positive reviews

For custom support on understanding your consumers—who they are, how they make health care decisions, and where and how you can and should influence them—contact Becca Lococo, PhD at lococob@advisory.com

Source: Market Innovation Center interviews and analysis.
Tactics for overcoming common journey mapping challenges
Common journey map challenges and suggested solutions

Challenge 1: How do I scope my journey map analysis?

TACTIC 1

When you are unsure which site of care, care episode, or patient population to focus your journey map analysis on, start by collecting preliminary data to identify the major issue areas.

The type of preliminary data you collect will depend on the journey map analysis you are conducting:

- **Patient experience journey map**: interview staff or analyze patient satisfaction data to uncover your biggest patient experience issues.
- **Longitudinal data-driven journey map**: look at your share of wallet data to identify services in which you do not capture a large portion of the patient spend.
- **Care pathway journey map**: analyze longitudinal claims or market share data to identify areas of high patient leakage or low market share.

TACTIC 2

Narrow the scope of the journey or patient cohort that you are analyzing to prevent data overload. One helpful best practice is to map journeys around specific care episodes within service lines. This will reduce the amount of data you have to analyze and generate more targeted, actionable results.

- Patient journeys tend to be similar for related care episodes, so a journey map with a small scope can be extrapolated to similar care episodes within the larger service line (e.g. the findings from a knee replacement journey can be applied to hip replacement within the orthopedic service line).
- Group care episodes by service type or patient characteristics to identify which journeys will produce similar information and which will require their own analyses.
- Further segment your patient cohort by demographic characteristics and geographic location to capture important differences that a more general journey will not show.

Pro Tip

Make sure that the sample size is large enough to obtain meaningful results. Smaller sample sizes can result in many individual, unique journeys that are hard to separate from the general patient journey. This is especially important for quantitative-heavy analyses.
Common journey map challenges and suggested solutions

▼ Challenge 2: What is the best method of collecting patient journey data?

TACTIC 1

Choose the data collection method that is most appropriate for the questions you are trying to answer:

- **Surveys**: to ask specific questions about groups of patients’ actions, behaviors, or satisfaction levels and generate quantitative benchmarks.
- **Interviews and focus groups**: to ask broader questions about the reasons behind the patients’ choices.
- **Observation**: to understand the choices patients make and how they act in real life scenarios.

▼ Challenge 3: How do I manage the large volume of data collected?

TACTIC 1

Go into the data with a targeted focus (i.e. generate hypotheses to test or specific questions to answer) to prevent data overload. If you do not know what questions to ask, conduct preliminary research to surface information for more targeted analyses (e.g. look at patient satisfaction scores to identify the major causes of patient dissatisfaction that you can then further analyze in surveys or interviews).

TACTIC 2

Your analysis is likely to produce several individual patient journeys, so you will need a mechanism to remove irrelevant data from the journey.

- One way to do this is to create control groups: compare your cohort of interest to the general patient population to identify which data points are significantly different and which are produced by chance (e.g. if the specialist is seen at a significantly higher rate in the cohort of interest than in the general population, then that event is considered meaningful in the analyzed journey).
- When analyzing qualitative data, you can use affinity diagramming to easily identify patterns in the data and sort information into groups based on natural relationships that are formed (see page 7 for example).

Source: Market Innovation Center interviews and analysis.
The best practices are the ones that work for you.™