Stemming the Tide
The Case for Rising-Risk Patient Management
Around the world, health care leaders are trying to understand how to effectively manage a population’s health.

This comes as patients are becoming more complex—and are consuming a disproportionate share of resources.

Compared with healthier patients, those with more than three chronic conditions experience:

- Longer length of stay: 62%
- Times higher readmission rate: 4–8

Regardless of payment model, most hospitals do not want, nor can they sustain, more of these complex patients.

Top 5%:
- Of care users in most markets of the total population account for 30% to 70% of health system spending.
That’s why population health management has become the preferred approach to tackle demand and cost challenges. And it’s showing results. Leaders in population health management are slowly demonstrating sustained quality improvement and cost management by assuming clinical and financial responsibility for their populations.

Select Global Care Transformation Innovators and Pilots

1. Gesundes Kinzigtal  
   Managing population health in a private enterprise

2. Isle of Wight  
   Comprehensive integrated care hub

3. Jönköping County Council  
   Managing all providers in the full continuum of care

4. Kaiser Permanente  
   Pioneer of patient risk stratification strategies

5. Manchester Devolution  
   Regional approach to health, social care planning

6. Montefiore Health System  
   Created back-office organisation to manage continuum

7. New Zealand Public System  
   Connecting primary care services to rest of continuum

8. Singapore Public System  
   Piloting the medical home concept in primary care

9. The Ottawa Hospital  
   Partnering to care for homeless, deprived population
A comprehensive population health management strategy must address three distinct patient populations.

Successful population health managers around the world are united by a shared strategy: They stratify their populations by risk levels and target their interventions accordingly.

What does that look like in practice? The graphic below depicts typical patient segmentation into high-risk, rising-risk, and low-risk categories.

**Three Segments of Your Patient Population**

- **HIGH-RISK PATIENTS**
  1%–5% of patients

- **RISING-RISK PATIENTS**
  15%–35% of patients

- **LOW-RISK PATIENTS**
  60%–80% of patients

**High-risk patients**: These poly-chronic patients require one-on-one intensive care management (e.g., patient with poorly controlled CHF with multiple comorbidities).

**Rising-risk patients**: These medium-risk patients require purposeful, scaled management, though they are not yet high-intensity users of your system (e.g., patient with diabetes and depression).

**Low-risk patients**: These relatively healthy patients are the majority of your patient population and require convenient access to the system to maintain low levels of health care use (e.g., patient with no disease diagnosis).
Because of the drain on resources, health systems have been forced to turn their immediate attention to high-risk patients.

In fact, in our recent poll of hospital executives, 86% of respondents say that understanding the efficacy of new care models is an A grade priority. Executives know that innovative care models are necessary to better care for their increasingly high-risk population. Ultimately, their goal is to alleviate capacity constraints and financial pressures.
Canada
Health Links programme encourages greater coordination between care providers and personalised care plan development for the system’s most complex patients.

UK
Ealing CCG\(^2\) publishes emergency department improvement plan, including integrated care pilot of frequent users of emergency care.

Singapore
Hospital tracks 40 “frequent fliers,” patients admitted to hospital three or more times in six months.

Australia
Chronic disease management pilot in New South Wales provides free services for those at risk of hospitalisation.
High-risk patients are the most visible drain on finite health system resources. But managing solely these complex patients is not enough.

High-risk patient management is effective, but it also has diminishing returns. Why?

High-risk patients make up, at most, 5% of your patient population. And while these patients undoubtedly have an outsized impact on your health system resources, there’s a much larger problem just down the road. Without intervention, 17% to 18% of your rising-risk patients will escalate into the high-risk category every year, further straining your resources. This population is your greatest threat—but also your greatest opportunity to bend the cost curve.
The impetus for bending the cost curve varies between public and private institutions. But despite different incentives, rising-risk patient management makes sense for both.

**Public Institutions**
For public organisations at capacity and concerned about bed availability, preventing patient escalation is a strategic necessity.

In the short term, rising-risk patient management can reduce unnecessary utilisation. In the long term, a rising-risk patient management strategy can help control spending of public funds.

**Private Institutions**
For private hospitals or organisations trying to increase patient volumes, rising-risk patient management presents immediate opportunities to fill care gaps and shift finite bed capacity towards more lucrative procedures.

Organisations that effectively mobilise both talent and capital to fill gaps can solve pressing market needs and improve their bottom lines.

**Risk Mitigation Strategy**

For Public Institutions
- Alleviate bed capacity pressure
- Improve service time, consistency

For Private Institutions
- Slow public health care spending
- Reshuffle health system assets

**Business Development Strategy**

For Public Institutions
- Fill system gaps with new services
- Free bed capacity for more lucrative services

For Private Institutions
- Sell comprehensive care management services
- Develop different-in-kind product offerings
Just how **severe** is rising-risk escalation? And how quickly will it **accelerate** high-risk growth?

We created a theoretical model to understand the looming situation. Using data from University of Michigan Health Management Research Center and the NHS Improving Quality group, we applied escalation rates to a hypothetical catchment area of 100,000 people in two scenarios. We assumed no intervention over a three-year period. **We saw that, without intervention, the increasing prevalence of high-risk patients will be unsustainable.**

We then set our sights on determining how much we could potentially improve.

To do that, we created a third “conservative” model by using more favourable inputs and reducing rising-risk escalation by one-third, a rate achieved by some of the world’s best population health managers. Even within these conservative parameters, the overall message is clear. Health systems must address their rising-risk patients—if they do not, their rising-risk patients today will become their high-risk patients tomorrow.

(A summary of all model parameters is available on the following page.)
## Model Assumptions and Methodology

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>CONSERVATIVE MODEL</th>
<th>NHS IQ MODEL</th>
<th>MICHIGAN MODEL</th>
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</thead>
<tbody>
<tr>
<td>Source</td>
<td>Composite of models</td>
<td>Population study of Barking and Dagenham UK</td>
<td>University of Michigan Health Management Research Center Study</td>
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<tr>
<td>Population Mix</td>
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</tr>
<tr>
<td>High: 5%</td>
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<tr>
<td>Rising: 30%</td>
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<td>Low: 65%</td>
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<td>Low: 65%</td>
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<tr>
<td>Risk Migration Rates</td>
<td>Migration from low up to rising at 19%</td>
<td>Migration from low up to rising at 28%</td>
<td>Migration from low up to rising at 19%</td>
</tr>
<tr>
<td></td>
<td>Migration from low up to high at 1%</td>
<td>Migration from low up to high at 1%</td>
<td>Migration from low up to high at 3%</td>
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<tr>
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<td>Migration from rising up to high at 12%</td>
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<td></td>
<td>Migration from high down to rising at 35%</td>
<td>Migration from high down to rising at 25%</td>
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<tr>
<td></td>
<td>Migration from high down to low at 14%</td>
<td>Migration from high down to low at 9%</td>
<td>Migration from high down to low at 14%</td>
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<tr>
<td></td>
<td>Migration from rising down to low at 39%</td>
<td>Migration from rising down to low at 27%</td>
<td>Migration from rising down to low at 39%</td>
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<td>Leave Rates</td>
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<td>High-risk death rate: 15%</td>
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<tr>
<td></td>
<td>Rising-risk death rate: 10%</td>
<td>Rising-risk death rate: 10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-risk death rate: 5%</td>
<td>Low-risk death rate: 5%</td>
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Do you have additional questions about models or our population projections? Email gfhi@advisory.com to schedule a conversation with a Global Forum researcher.
Health care leaders need to understand how to manage their **rising-risk patients**.

Health care executives are under no illusion that preventing patient escalation is a simple task. But there are smart ways to start. The remainder of this research briefing will answer the following questions to help you chart a path forward:

01 **Who are rising-risk patients?**

02 **Why do rising-risk patients escalate into high risk?**

03 **How do you create an action plan to prevent rising-risk patient escalation?**
Who are rising-risk patients?

Rising-risk patients can be hard to identify and, thus, **difficult to manage.**
Who are your rising-risk patients?

• They have one or two well-managed chronic diseases
• Their symptoms are ignorable, not severe
• They have underlying risk factors (e.g., poor lifestyle, behavioural health conditions, etc.)

Why are they so difficult to manage?

They are hard to identify. Rising-risk patients do not always interact with providers in the health care system. Because their symptoms are often ignorable, the patients themselves sometimes do not know that they are at risk.

They have a diverse set of risk factors. Rising-risk patients often have a wide array of psychosocial risk factors that confound their chronic disease management. These risk factors co-occur in numerous ways, making it difficult to address only one risk factor at a time.

They make up a sizeable portion of your population. Up to 35% of your patient population consists of rising-risk patients, compared with 5% of your population who are high risk.

Patient populations at risk of escalation will vary between geographical areas. To identify your organisation’s at-risk patients, you must develop a deep understanding of your patient population by being creative with the data you have and by partnering with community allies to fill any gaps.
02

Why do rising-risk patients escalate into high risk?

To manage rising-risk patients effectively, you need to understand how they escalate.
Escalation is only **one care mistake away**—often the result of a gap in the system.

There are three types of triggers that can cause a rising-risk patient to escalate to high risk:

**Common Triggers of Rising-Risk Patient Escalation**

<table>
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<tr>
<th>Precipitating Crisis</th>
<th>Uncontrolled Disease Progression</th>
<th>Controlled Disease Progression</th>
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<tbody>
<tr>
<td>A patient experiences an unpredicted situation, such as a fall. The patient escalates into the high-risk category when he is unable to recover.</td>
<td>A patient is unaware of his condition or struggles with self-management. Lack of behaviour modification speeds escalation to high risk.</td>
<td>A patient manages his condition according to plan, but over time the condition deteriorates naturally.</td>
</tr>
</tbody>
</table>

Risk-escalation mechanisms are complex and interconnected—and they are not mutually exclusive. Effectively managing the rising-risk patient population means addressing several risk-escalation mechanisms and system gaps at once. The most common escalation mechanisms are:

1. Patients are unaware of their conditions in the first place
2. Patients do not understand how to self-manage their conditions
3. Patients are not motivated to self-manage their conditions
4. Patients are unable to access providers for condition management
5. Patients are unable to access supportive services
How do you create an action plan to prevent rising-risk patient escalation?

Once you understand your rising-risk patient population, you can **develop a management strategy.** Start with these three steps.
1. **Identify your at-risk populations.** Patient populations at greatest risk of escalation will vary between geographical boundaries. To identify your organisation’s at-risk patients, you must develop a deep understanding of your patient population by being creative with the data you have available and by partnering with community allies to fill data gaps.

2. **Use existing resources to maximise scale.** The large size of the rising-risk patient population requires a scaled approach—one that may be achieved by leveraging current resources. However, you may not be aware of every resource available within your larger health care system. You must ensure that connections exist between your system’s services and that you seek opportunities for scale whenever possible. Ensuring strong connections between clinical and non-clinical resources available within your community is crucial for success.

3. **Elevate primary care to sustain the system.** To prevent future escalation of rising-risk patients, someone must monitor and engage with individuals over time. In an ideal system, primary care providers would have the capacity and expertise to do this. However, this is not always the case. Health care leaders must find ways to train general practitioners for this work and also provide alternative models to extend the reach of primary care.
Additional Resources

For more detailed guidance on population health management, visit: advisory.com

Here are a few resources to help you get started:

**The Population Health Enterprise**
This research study introduces the concept of the population health pyramid and outlines how organisations can build a successful population health infrastructure by segmenting their three distinct patient populations: high-risk, rising-risk, and low-risk.

**The State of Care Transformation**
Before introducing an agenda for care transformation, there are four questions health care leaders should ask. This research briefing will help leaders begin to tackle these four questions, while charting a clear path forward for a successful integration strategy.

**How to Prioritise Population Health Interventions**
Population health managers need to understand where to deploy their limited care management resources for the best results. This research briefing explains how to establish each patient’s current and future risk level, find the root causes of the patient’s health risks, and identify which interventions would make the biggest impact.

**High-Risk Patient Care Management**
This research study focuses specifically on the high-risk patient population, outlining ways organisations can learn to identify and manage their highest-cost patients using targeted care management tactics that prioritise a comprehensive care approach and patient activation.
About the Global Forum for Health Care Innovators

This briefing is based on original research on population health management around the world. Designed to provide insights that inform executive team decision making on key strategic issues, research from the Global Forum for Health Care Innovators is expressly tailored to the needs of a senior executive audience.

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