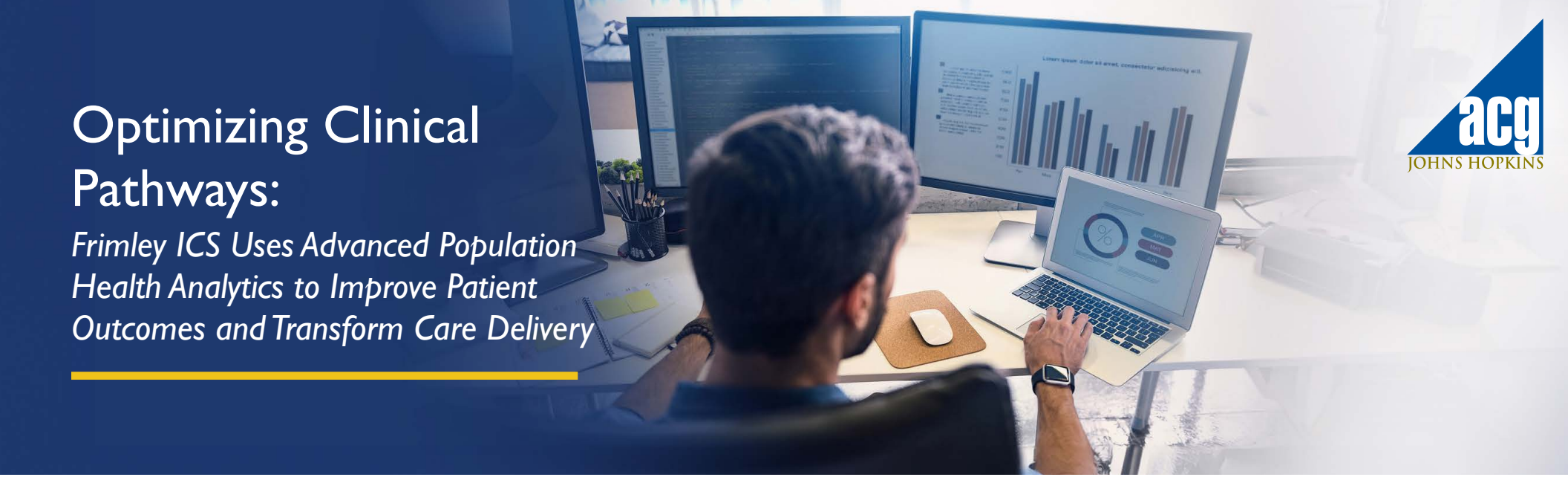
Optimizing Clinical Pathways:

Frimley ICS Uses Advanced Population Health Analytics to Improve Patient Outcomes and Transform Care Delivery



At a Glance

Frimley Integrated Care System's (ICS) Connected Care analytics platform, supported by Graphnet and Johns Hopkins ACG® System, uses Patient Need Groups (PNGs) to segment the population and analyse urgent and emergency care demand, driving significant care delivery improvements across the area.

The ACG System's PNGs help health care professionals better understand patient and care requirements and plan more efficiently to meet capacity and resource demands.

What the Team is Saying

Dr Priya Kumar, a Primary Care lead on the project, says ***'By embedding the ACG System segmentation tool into our systems, we are further supporting our clinicians with a greater understanding of the patient in front of them and improving the overall outcomes and experiences for our patients.'***

Alex Barnett, Associate Director of Analytics at Frimley ICS adds, ***'This is intelligence-led decision making… We feel that we have been able to simplify an overly complex space.'***

Dr John Seymour MA PhD FRCP, Consultant Respiratory Physician, Deputy Medical Director, Frimley ICS: ***'Being able to identify and analyse how different segments access urgent health care has informed our decision making around new service provision and design. Information from segmentation has allowed us to identify people on waiting lists that require more or less pre-anaesthetic assessment, targeting stretched clinical resource.'***

Challenges

Frimley ICS faced growing urgent care demand, and were challenged with translating collected data into actionable insights. To improve patient outcomes, they wanted to better understand local utilization patterns and needs to ensure patients received appropriate care, while reducing pressure on emergency departments (EDs) and optimizing resource use.

Solutions

The team at Frimley ICS leveraged the ACG System's PNG segmentation tool to analyse ED activity alongside clinical risk from PNGs. By grouping patients into Green, Amber and Red segments, while categorising the presenting need into Red (emergency), Amber (urgent), and Green (on-the-day) segments, they were able to pinpoint **priority focus areas** where targeted changes in care delivery could effectively reduce demand on the ED.

Key Metrics

The use of the ACG System in this project has also allowed Frimley ICS to track important metrics, such as the proportion of ED attendances that had prior contact with primary care services, to further inform and evaluate the effect of the clinical care redesign.

Minor illness cases from PNG segments 3 & 4 made up **15% of total attendances,** with a **12.8% admission rate**. Clinicians identified this as a **modifiable opportunity** to reduce overall demand.

Agi Zarzycka, Head of Analytics, Delivery Lead at Frimley ICS explains: 'Patients have unique health needs that are driven by their medical conditions and social factors and PNGs were an important component here when tackling this issue.'

Benefits

Stronger Care Coordination: Improved collaboration between primary and secondary care providers and evolving urgent care model to ensure patients receive the most appropriate care in the right setting for their needs.

Deeper Patient Insights: Established a common understanding of patient needs leading to more personalized care and better patient outcomes.

Optimized Health Care Utilisation: Reduced avoidable ED visits whilst improving patient care. The team at Frimley ICS has demonstrated how utilising the ACG System to implement effective patient triage, communication and signposting can successfully reduce unnecessary use of the ED, ensuring they receive the right care in, often, more cost-efficient community settings.