



# Intelligent Workflows

- Enabling NHS recovery through process mining, AI, automation and design

Tuesday 12<sup>th</sup> March 2024

14:00 – 14:45



# Intelligent Workflows -

Enabling NHS recovery through process mining, AI, automation and design



# Dr Penny Kechagogliou

## University Hospitals Coventry and Warwickshire (UHCW) Experience in Practice:

- Implemented process mining and AI to improve patient experience and staff efficiency
- Achieved tangible efficiency and productivity gains
- Improved patient and staff experience through targeted interventions



Chief Clinical Information Officer,  
deputy Chief Medical Officer

University Hospitals Coventry and Warwickshire NHS  
Trust

# Process Mining – Approach and total benefits



**Quantified** known waste areas



Identified **opportunities for performance improvement**



Defined **interventions & built dashboards to measure the impact**



**Identified** additional areas of waste



Highlighted **specific areas** of focus



Commenced **implementation** of changes

Size of the **total possible opportunity** estimated at

**5%** of annual appointments

**£2.8m/year**

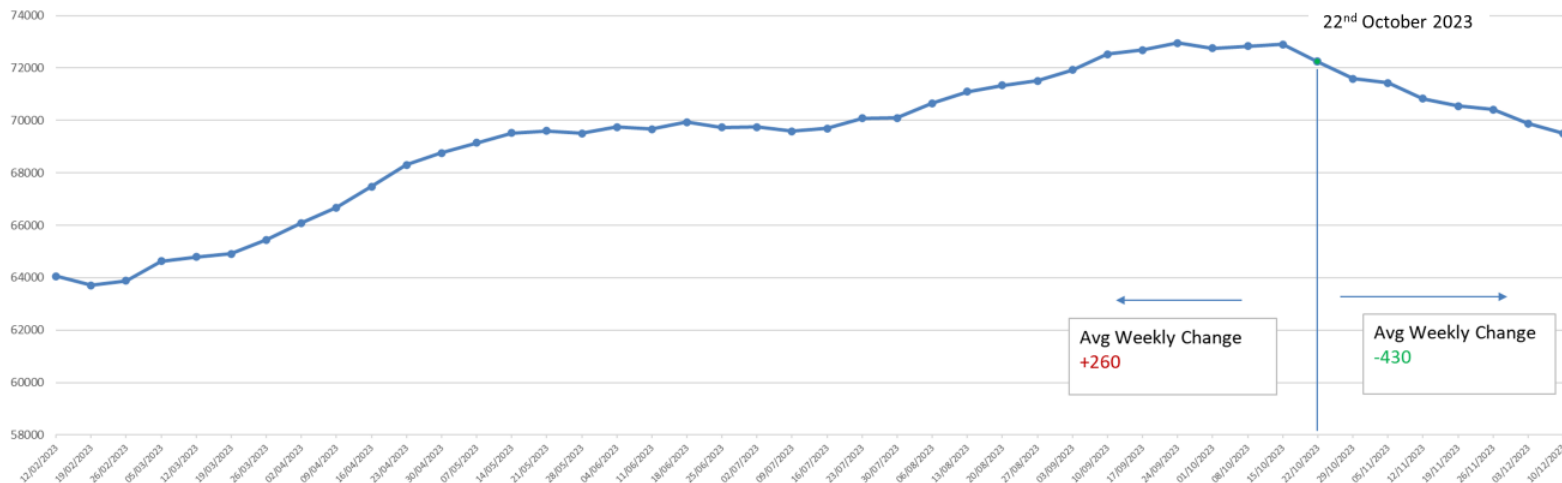
# UHCW – Waiting List Change by Week

The Total UHCW Waiting List has moved from 72,871 at the start of October 2023 to 68,901 at 14<sup>th</sup> December 2023.

From weekending 22<sup>nd</sup> October the waiting list began a consistent reduction week on week.

The average weekly change has moved from +260 per week prior to 22<sup>nd</sup> October to -430 per week after 22<sup>nd</sup> October. This consistent week on week reduction has continued for 8 weeks, the first time a sustained improvement has been seen since pre-Covid.

## Total Waiting List by Week – Jan 2023 to December 2023

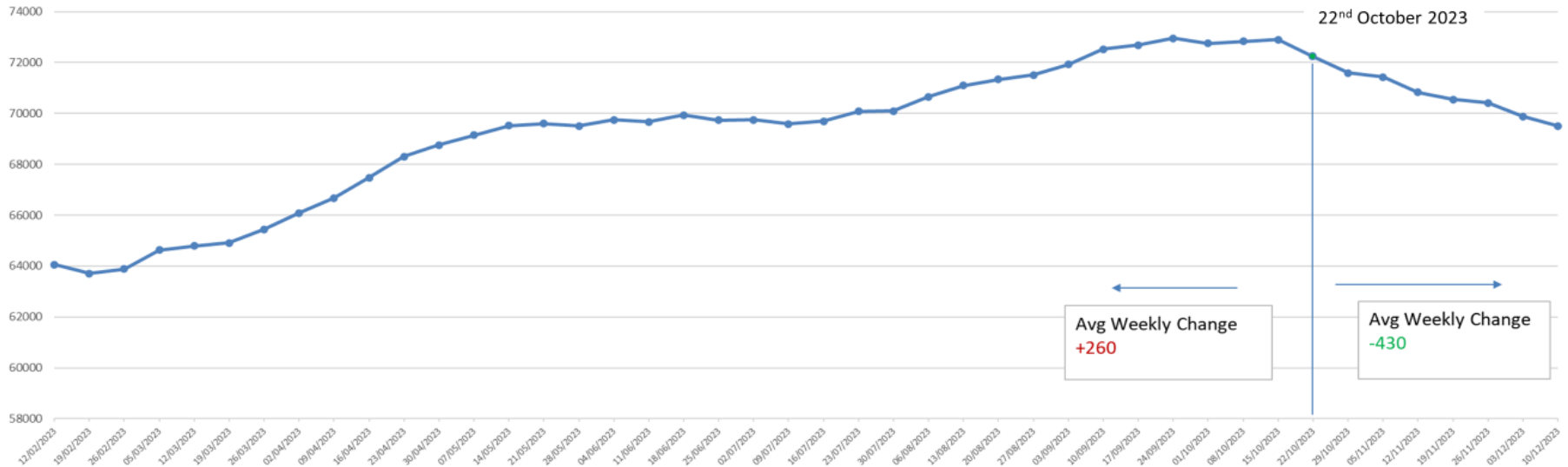


Week Ending	30/07/2023	06/08/2023	13/08/2023	20/08/2023	27/08/2023	03/09/2023	10/09/2023	17/09/2023	24/09/2023	01/10/2023	08/10/2023	15/10/2023	22/10/2023	29/10/2023	05/11/2023	12/11/2023	19/11/2023	26/11/2023	03/12/2023	10/12/2023	
Waiting List	70091	70661	71095	71332	71511	71921	72525	72680	72954	72748	72837	72895	72239	71587	71437	70829	70552	70419	69881	69513	
Weekly Change		3	570	434	237	179	410	604	155	274	-206	89	58	-656	-652	-150	-608	-277	-133	-538	-368

# UHCW – Waiting List Change by Week

- Waiting list reduced by 4,970 patients.
- Average weekly reduction of 430 patients since October 22.
- First consistent improvement in 8 weeks.

## Total Waiting List by Week – Jan 2023 to December 2023



# Jacob Koris

## The Power of Process Mining as a methodology for the NHS:

- Identifies inefficiencies and opportunities for improvement
- Enables data-driven decision-making
- Empowers clinicians to lead change and improve patient care



Trauma and Orthopaedic Registrar

Health Education England Improvement Fellow &  
Health Innovator

# Tom Newman

## AI and Intelligent Workflows:

- Enable automation of routine tasks and free up staff time for higher-value work
- Improve patient experience through personalised communication and streamlined processes
- Drive adoption at scale through collaboration and engagement



Generative AI Technical Leader

IBM Consulting



# Q & A

