Building Safer Hospitals

DEVELOPING PRACTICAL, MULTIDISCIPLINARY SOLUTIONS TO FIGHT AMR: A WORKSHOP REPORT

An initiative by:

Healthcare Infection Society

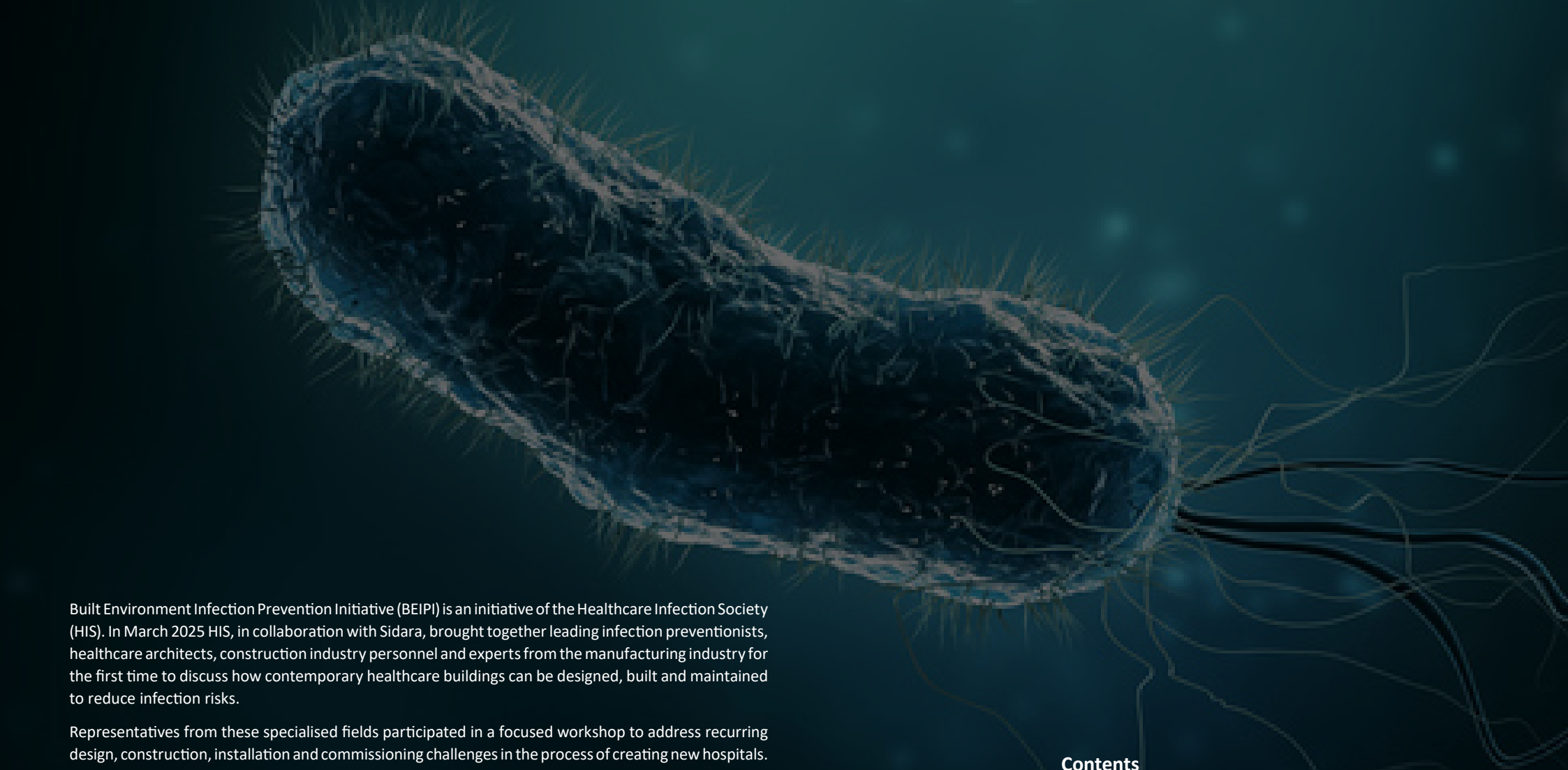
Workshop collaborators:

NHS New Hospital Programme

IHEEM

CIBSE Healthcare

AfH



Built Environment Infection Prevention Initiative (BEIPI) is an initiative of the Healthcare Infection Society (HIS). In March 2025 HIS, in collaboration with Sidara, brought together leading infection preventionists, healthcare architects, construction industry personnel and experts from the manufacturing industry for the first time to discuss how contemporary healthcare buildings can be designed, built and maintained to reduce infection risks.

Representatives from these specialised fields participated in a focused workshop to address recurring design, construction, installation and commissioning challenges in the process of creating new hospitals. Out of that workshop, BEIPI was formed with the goal of fighting the silent pandemic of antimicrobial resistance by embedding the principles and practices of infection prevention into healthcare building, design and construction from day one.

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Germicidal UV Inivos IP Group Innovative Infection Control Solutions Mueller Europe

BEIPI BUILDING SAFER HOSPITALS

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Executive Summary

Across two workshops, held in London (22 Jan 2026) and Manchester (25 Mar 2026), the Healthcare Infection Society's (HIS) special interest group Built Environment Infection Prevention Initiative (BEIPI), in collaboration with Institute of Healthcare Engineering & Estate Management (IHEEM), the Chartered Institution of Building Services Engineers (CIBSE), Architects for Health (AfH) and the New Hospital Programme (NHP), brought together leaders healthcare, design, engineering and policy to map how hospital design and refurbishment can strengthen infection prevention and control (IPC) and help tackle antimicrobial resistance (AMR).

While progress is underway, participants highlighted persistent barriers, such as cost pressures, slow system change and the policy-to-practice gap, and set out a 2036 vision where IPC is embedded from boardroom to blueprint.

The report identifies actionable strategies to achieve these objectives:

- Enhance IPC competencies through comprehensive training for all the relevant stakeholders
- Reinforce risk-based decision-making and accountability
- Allocate resources to support evidence and innovation
- Facilitate transparent sharing of knowledge
- Underscoring that the capacity for progress exists within the NHS and its collaborators.

Overview

The discussions were framed around both near term feasibility (3–5 years) and a long term vision for world class infection prevention by 2036, and built on strategies outlined in the BEIPI prospectus.
Through scenario-based exercises and focused discussions, participants explored how to strengthen cross-sector education, improve communication and develop practical tools for risk assessment and decision-making.

This report outlines the key discussions and takeaways from the event.

Right:
Alpa Patel - Integration Director for New Hospital Programme, NHS England at BEIPI London Workshop

Our vision and mission

BEIPI was formed to fight the devastating pandemic of AMR by embedding the principles and practices of infection prevention into healthcare building, design and construction from day one.

We want every new hospital and healthcare facility to promote patient and staff health, and to centre occupant safety at every stage of design and use. Our goal is to eliminate deaths from avoidable infections acquired because of poor hospital design.

To fight infection through good hospital design, we aim to work with the NHP and other stakeholders to centre infection prevention and occupant safety into every stage of the concept, design, construction and maintenance of new hospitals. We believe that embedding the right principles from the start can save costs as well as lives.

We will facilitate continuous knowledge exchange between infection control and construction industry professionals, advocating for evidence-based risk assessments, and empowering teams to make decisions to create infection-safe hospitals.

Below:
Group picture of participants at BEIPI Manchester Workshop

1. Outlook: How Optimistic Are We?

"Do you believe that in 3-5 years, we'll have significantly improved infection prevention through better built environment practices?"

Participants were evenly split between optimism and realism regarding achieving significant change within 3–5 years.

Reasons for Optimism

- Strong early progress through initiatives such as BEIPI.
- Increasing collaboration across IPC, design, and engineering disciplines.
- Growing awareness and shared learning across sectors.
- Evidence that change is already happening in pockets of practice.
- Recognition that all stakeholders can contribute to improvement.

Challenges Identified

- 3–5 years seen as ambitious for systemic change.
- Slow organisational and cultural change within healthcare and construction.
- Gap between policy development and real-world implementation.
- Difficulty embedding IPC considerations into business cases and cost frameworks.
- Historically reactive rather than proactive approaches.

"We can change the way we work on and in buildings. If people in this room have done it, why can't I do it? It may be difficult, but it is not impossible."

Right:
Group exercise at BEIPI London Workshop

2. Agency and Influence

“How capable do you feel in your current role to influence better IPC outcomes through built environment decisions?”

Most participants felt they had some level of agency, but acknowledged constraints.

Enablers of Influence

- Ability to collaborate and draw on multidisciplinary expertise.
- Opportunities to influence through education, training, and innovation.
- Incremental improvements (e.g., design adjustments) can have meaningful impact.
- Growing demand and global interest in IPC improvements.

Barriers to Change

- Financial constraints and cost-driven decision-making.
- Resistance to innovation and reliance on guidelines and compliance alone without combining this with MDT risk assessments.
- Limited translation of IPC expertise into built environment decisions.
- Complexity of long-term implementation strategies.
- Workforce and capacity limitations.

“Part of the problem we see is an exponential rise in AMR gram negative bacteria causing infections. But the tsunami coming means people will do something because the problem is very nasty.”

Right:
Group exercise at BEIPI London Workshop

3. Vision for 2036: A World-Class IPC Built Environment

Participants envisioned a future where IPC is fully embedded, prioritised, and understood.

Key Themes

a. Representation and Leadership

- IPC integrated into governance and decision-making from the outset.
- Strong political support and sustained investment.
- Long-term focus on safety over short-term cost savings.

b. Shared Understanding

- Universal awareness of IPC risks across all disciplines.
- Clear, accessible frameworks guiding decision-making.
- IPC literacy comparable to fire safety standards and learning from Grenfell Inquiry report.

c. Education and Integration

- Multidisciplinary training embedded across all relevant professions.
- IPC expertise incorporated early in design and planning processes.
- Cross-sector learning environments breaking down silos.

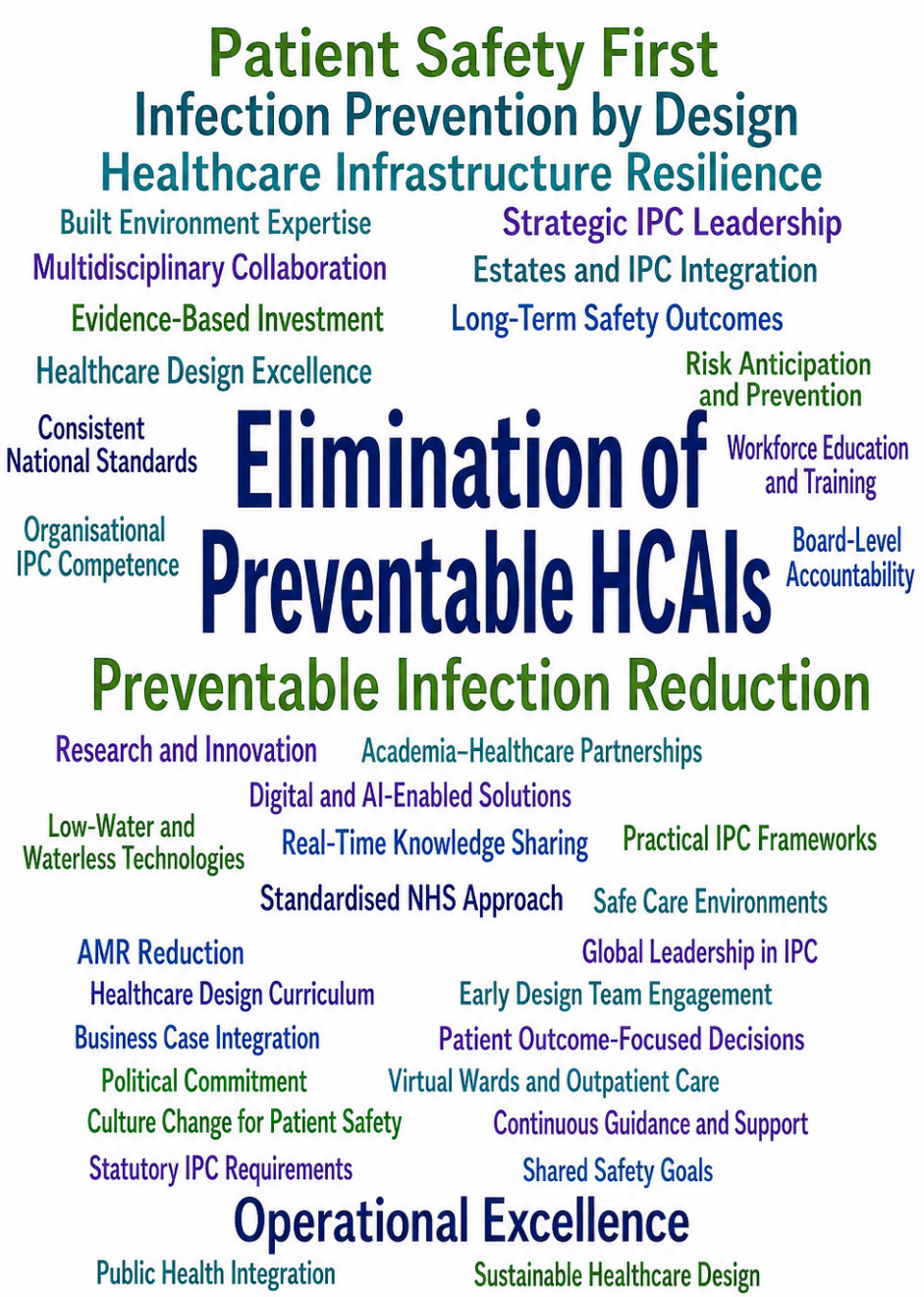
d. Research and Innovation

- Robust, funded research programmes linking academia, NHS, and industry.
- Increased use of technology, including AI, to support integration.
- Global collaboration and leadership in IPC practices.

Ultimate Goal

Elimination of healthcare-associated infections (HCAIs) preventable through safer built hospital environments.

“The endgame for all of us is about reducing infection – so in this ideal world there are no preventable healthcare-associated infections.”



4. Pathways to Achieving This Future

a. Education, Training, and Workforce Development

- Develop a structured knowledge framework from beginner to expert.
- Expand workforce capacity with targeted funding and recruitment.
- Embed IPC into curricula across healthcare, design, and engineering.
- Promote apprenticeships and professional accreditation.

b. Leveraging Existing Models

- Build on established NHS and industry frameworks.
- Adapt successful tools (e.g., safety gateways, risk assessment models).
- Learn from other sectors and international best practices.
- Strengthen collaboration across organisations and regions.

c. Improving Guidance, Decision-Making, Legislation and Accountability

- Shift from blind following of guidelines to risk-based, adaptive approaches – which is the direction of the recent SHTM 04-01 Draft publication.
- Use evidence reviews to guide risk assessments.
- Ensure competent multi-disciplinary and collaborative input is available for all NHS refurbishment and new build projects
- A clear gap remains within the current UK legislative framework governing healthcare infrastructure that needs strengthening or changing through advocacy.
- Advocacy for a key component of this legislative change to be the introduction of defined duty holders with legal accountability for IPC-related risks in the built environment and for accountability and responsibility to be defined at all levels of healthcare construction projects with mandatory independent verification and certification processes at each stage.

d. Research and Evidence Building

- Invest in multidisciplinary research programmes.
- Encourage transparency and learning from both success and failure.
- Strengthen the evidence base to support design decisions

e. Knowledge Sharing, Accountability and Systems

- Advocacy for creating mandatory reporting of incidents and near misses which are investigated and lessons learnt shared across the NHS.
- Promote open collaboration across sectors.

f. Communication and Advocacy

- Raise awareness of IPC risks as a system-level crisis.
- Use effective communication to drive urgency and engagement.
- Learn from transformative events (e.g., pandemics, safety crises) to accelerate change.

5. Key Takeaway

The workshop highlighted that while structural and systemic barriers exist, momentum is building. Achieving world-class IPC in the built environment will require:

Sustained collaboration | Culture change | Investment in people and knowledge | A shift toward proactive, safety-led design.

“The power is in this room – don’t wait to be told.”

Participants

Aditya Kashikar	WSP
Adrian Lines	Mace Consult
Alejandro Iriarte	HDR
Alpa Patel	New Hospital Programme
Alyson Prince	Built Environment IPC Nurse Independent Consultant
Amy Mbuli	NHS Fife
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Anna Lutterodt	Willmott Dixon Construction
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Jo Flint	Manchester Metropolitan University
John Bodley-Scott	Sisk

Participants

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Manjula Meda	Frimley Health NHS Foundation Trust
Mark Walker	Stantec
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Trupti Patel	UKHSA
Vicki Shepherdson	AHR Architects
Wendy Millard	Humber Health Partnership
William Newsholme	Guy's and St Thomas' NHS Foundation Trust

BUILDING SAFER HOSPITALS 2026

9 November 2026
Goodenough College, London

Registration open

The UK's multidisciplinary event for clinical IPC, hospital leaders, design, construction & estates professionals

Organised by

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