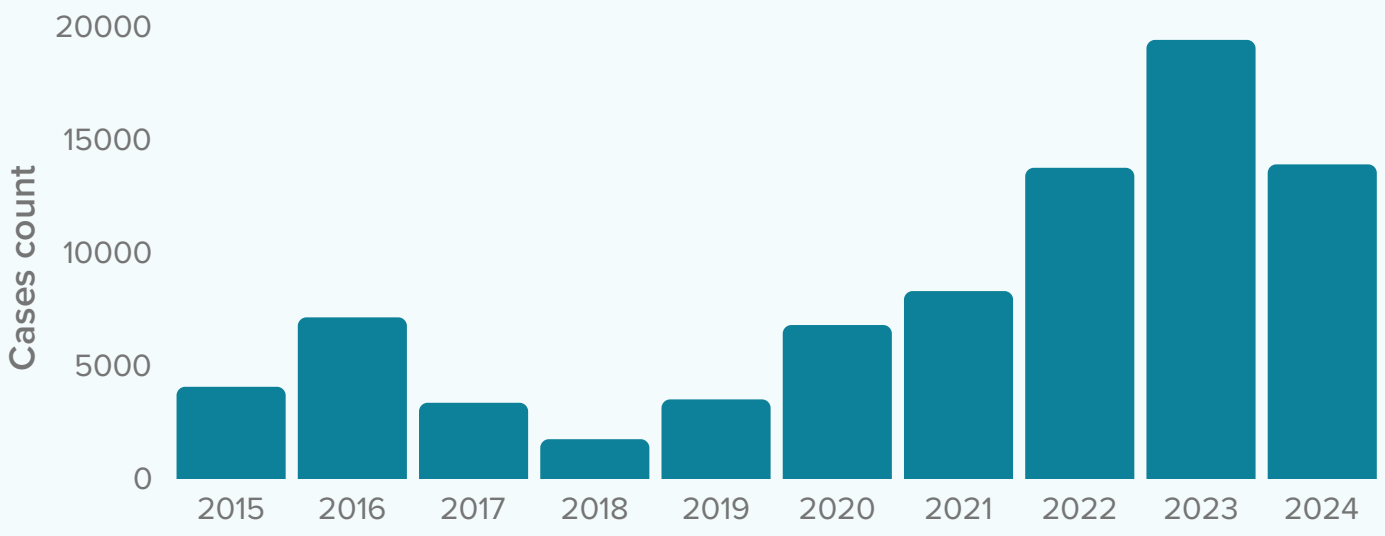
# ROLE OF HUMAN FACTORS IN MEDICAL DEVICE SAFETY

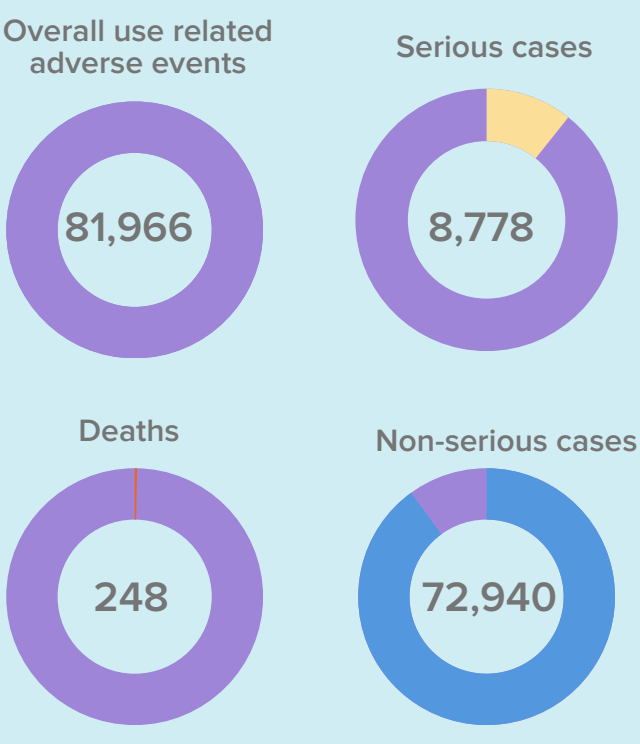
A visual representation of impact of medical device use issues from 2015 to 2024. Highlighting serious cases, deaths, and the role of human factors in improving device safety.

## Use related adverse events

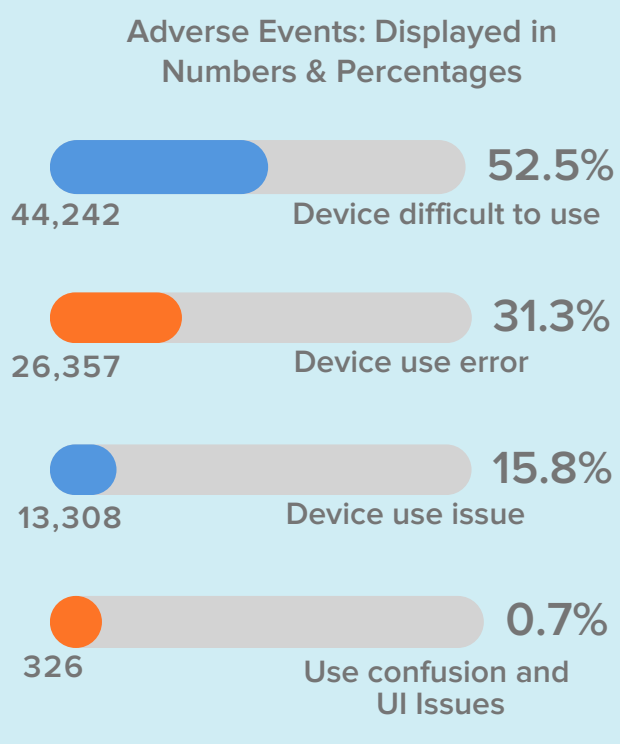



Over the past decade, post-market events associated with medical device usage issues have increased. As devices become advanced and used in complex environments, the risk of user errors grows.

## Cases count by severity




## Cases count by issue type




The rise in usage errors, driven by poorly designed interfaces, underscores the need for better device safety. Stricter regulations and mandatory reporting enhance awareness, improve documentation, and drive continuous improvements in safety and device performance.

# HUMAN FACTORS AND REGULATORY EFFORTS

### Human Factors

Design complexities cause device errors. Human factors research refines interfaces and ergonomics, reducing confusion and mistakes.

### Usability Improvements

User-centered design improves device usability with clearer feedback and intuitive interfaces, reducing misuse and enhancing patient safety.

### Technological Advancements

Device innovations incorporate smarter tech and safety features, aligning with stricter regulations to enhance usability and patient safety.

### Educational Initiatives

Training and feedback from healthcare professionals drive ongoing improvements, enhance safety culture, reduce device-related incidents.

Advancements in human factors and usability, combined with regulatory efforts, are improving device safety in healthcare. These initiatives aim to reduce errors and enhance patient safety.

## How can Decos assist?

By systematically identifying and analyzing known use problems, we can uncover recurring issues and their underlying causes. Addressing these problems through targeted design improvements and enhanced user training not only mitigates the risk of use-related adverse events but also significantly enhances the overall safety and effectiveness of medical devices.


For Human Factors & Usability Services connect with team Decos

devesh.agarwal@decos.com

deepareddy.g@decos.com

www.decos.com

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