Safety Ii In Practice Developing The Resilience Potentials

Safety-I is defined as the freedom from unacceptable harm. The purpose of traditional safety management is therefore to find ways to ensure this ‘freedom’. But as socio-technical systems steadily have become larger and less tractable, this has become harder to do. Resilience engineering pointed out from the very beginning that resilient performance - an organisation’s ability to function as required under expected and unexpected conditions alike – required more than the prevention of incidents and accidents. This developed into a new interpretation of safety (Safety-II) and consequently a new form of safety management. Safety-II changes safety management from protective safety and a focus on how things can go wrong, to productive safety and a focus on how things can and do go well. For Safety-II, the aim is not just the elimination of hazards and the prevention of failures and malfunctions but also how best to develop an organisation’s potentials for resilient performance – the way it responds, monitors, learns, and anticipates. That requires models and methods that go beyond the Safety-I toolbox. This book introduces a comprehensive approach for the management of Safety-II, called the Resilience Assessment Grid (RAG). It explains the principles of the RAG and how it can be used to develop the resilience potentials. The RAG provides four sets of diagnostic and formative questions that can be tailored to any organisation. The questions are based on the principles of resilience engineering and backed by practical experience from several domains. Safety-II in Practice is for both the safety professional and academic reader. For the professional, it presents a workable method (RAG) for the management of Safety-II, with a proven track record. For academic and student readers, the book is a concise and practical presentation of resilience engineering.

Organ-on-a-Chip: Engineered Microenvironments for Safety and Efficacy Testing contains chapters from world-leading researchers in the field of organ on a chip development and applications, with perspectives from life sciences, medicine, physiology and engineering. The book contains an overview of the field, with sections covering the major organ systems and currently available technologies, platforms and methods. As readers may also be interested in creating biochips, materials and engineering best practice, these topics are also described. Users will learn about the limitations of 2D in-vitro models and the available 3D in-vitro models (what benefits they offer and some examples). Finally, the MOC section shows how the organ on a chip technology can be adapted to improve the physiology of in-vitro models. Includes case studies of other organs on a chip that have been developed and successfully used Provides insights into functional microphysiological organ on a chip platforms for toxicity and efficacy testing, along with opportunities for translational medicine Presented fields (PK/PD, physiology, medicine, safety) are given a definition followed by the challenges and potential of organs on a chip

The second edition of a bestseller, Safety Differently: Human Factors for a New Era is a complete update of Ten Questions About Human Error: A New View of Human Factors and System Safety. Today, the unrelenting pace of technology change and growth of complexity calls for a different kind of safety thinking. Automation and new technologies have resu

This title was first published in 2002: This field guide assesses two views of human error - the old view, in which human error becomes the cause of an incident or accident, or the new view, in which human error is merely a symptom of deeper trouble within the system. The two parts of this guide concentrate on each view, leading towards an appreciation of the new view, in which human error is the starting point of an investigation, rather than its conclusion. The second part of this guide focuses on the circumstances which unfold around people, which causes their assessments and actions to change accordingly. It shows how to "reverse

engineer" human error, which, like any other componant, needs to be put back together in a mishap investigation.

AN AUTHORITATIVE GUIDE THAT EXPLAINS THE EFFECTIVENESS AND IMPLEMENTATION OF BOW TIE ANALYSIS, A QUALITATIVE RISK ASSESSMENT AND BARRIER MANAGEMENT METHODOLOGY From a collaborative effort of the Center for Chemical Process Safety (CCPS) and the Energy Institute (EI) comes an invaluable book that puts the focus on a specific qualitative risk management methodology – bow tie barrier analysis. The book contains practical advice for conducting an effective bow tie analysis and offers guidance for creating bow tie diagrams for process safety and risk management. Bow Ties in Risk Management clearly shows how bow tie analysis and diagrams fit into an overall process safety and risk management framework. Implementing the methods outlined in this book will improve the quality of bow tie analysis and bow tie diagrams across an organization and the industry. This important guide: Explains the proven concept of bow tie barrier analysis for the preventing and mitigation of incident pathways, especially related to major accidents Shows how to avoid common pitfalls and is filled with real-world examples Explains the practical application of the bow tie method throughout an organization Reveals how to treat human and organizational factors in a sound and practical manner Includes additional material available online Although this book is written primarily for anyone involved with or responsible for managing process safety risks, this book is applicable to anyone using bow tie risk management practices in other safety and environmental or Enterprise Risk Management applications. It is designed for a wide audience, from beginners with little to no background in barrier management, to experienced professionals who may already be familiar with bow ties, their elements, the methodology, and their relation to risk management. The missions of both the CCPS and EI include developing and disseminating knowledge, skills, and good practices to protect people, property and the environment by bringing the best knowledge and practices to industry, academia, governments and the public around the world through collective wisdom, tools, training and expertise. The CCPS has been at the forefront of documenting and sharing important process safety risk assessment methodologies for more than 30 years. The EI's Technical Work Program addresses the depth and breadth of the energy sector, from fuels and fuels distribution to health and safety, sustainability and the environment. The EI program provides cost-effective, value-adding knowledge on key current and future international issues affecting those in the energy sector.

The complexity of today's large organisations, businesses, and social institutions defeats management approaches based on monolithic thinking. Most industry and service organisations look at their performance either from a single perspective - productivity, quality, safety, etc. - or from different but separate perspectives that reside in organisational silos. Quality is treated separately from safety, which, again, is treated separately from productivity, and so on. While siloed thinking may be convenient in the short term, it fails to recognise that any specific perspective reveals only a part of what goes on. Yet it is essential to have a unified view of how an organisation functions effectively to manage changes and to ensure the organisation excels in what it does. Synesis represents the mutually dependent set of priorities, perspectives, and practices that an organisation needs to carry out its activities as intended. It shows how to overcome the fragmentation in foci, scope, and time that characterises the dominant change management paradigms. This book is consequently not about productivity or quality or safety or reliability but about all of these together. It is about why it is necessary to think of them as a whole. And it is about how this can be done in practice.

This book is a set of new skills written for the managers that drive safety in their workplace. This is Human Performance theory made simple. If you are starting a new program, revamping an old program, or simply interested in understanding more about safety performance, this guide will be extremely helpful.

This book explores the challenges, opportunities, applications, and implications of applying qualitative research to critical questions of research and practice in the field of organizational risk and safety. The book brings together a diverse perspective to explore the practice of conducting qualitative research as well as to debate the quality of research and knowledge, drawing on a range of different perspectives and traditions. It offers novel and innovative developments in data collection and data analysis methods and tools that can be applied to safety, risk, and accident analysis in complex systems. It also will present practical issues associated with data access and empirical research in challenging and high-stakes environments. This book will provide academics, researchers, students, and professionals in the fields of safety, accident analysis, and risk with a broad-range and expert guide to the key issues and debates in the field, as well as a set of exemplary cases and reflective narratives from leading researchers in the field.

Almost 70% of parents who refuse to vaccinate their children do so because they believe vaccines may cause harm. Indeed vaccines have been blamed for causing asthma, autism, diabetes, and many other conditions most of which have causes that are incompletely understood. Do Vaccines Cause That?! A Guide for Evaluating Vaccine Safety Concerns provides parents with clearly understandable, science-based information about vaccines, immunization, and vaccine safety.

Resilience engineering has since 2004 attracted widespread interest from industry as well as academia. Practitioners from various fields, such as aviation and air traffic management, patient safety, off-shore exploration and production, have quickly realised the potential of resilience engineering and have became early adopters. The continued development of resilience engineering has focused on four abilities that are essential for resilience. These are the ability a) to respond to what happens, b) to monitor critical developments, c) to anticipate future threats and opportunities, and d) to learn from past experience - successes as well as failures. Working with the four abilities provides a structured way of analysing problems and issues, as well as of proposing practical solutions (concepts, tools, and methods). This book is divided into four main sections which describe issues relating to each of the four abilities. The chapters in each section emphasise practical ways of engineering resilience and feature case studies and real applications. The text is written to be easily accessible for readers who are more interested in solutions than in research, but will also be of interest to the latter group.

Critical Steps happen every day at work and at home, purposefully. Work does not happen otherwise. If an operation has the capacity to do work, then it has the capacity to do harm. Work is energy directed by human beings to create value. But people are imperfect—we make mistakes, and sometimes we lose control of the work. Therefore, work is the use of force under conditions of uncertainty. A Critical Step is a human action that will trigger immediate, irreversible, and intolerable harm to an asset, if that action or a preceding action is performed improperly. Whether the human action involves clicking on a link attached to an e-mail message, walking down a flight of stairs with a newborn baby in arms,

engaging the clutch on a gasoline-driven chain saw, or administering a medication to a patient in a hospital, these all satisfy the definition of what constitutes critical risks in our daily lives, professionally or personally. The overarching goal of managing Critical Steps is to maximize the success (safety, reliability, productivity, quality, profitability, etc.) of people's performance in the workplace, to create value for the organization without losing control of built-in hazards necessary to create that value.

The book demonstrates how Resilient Health Care principles can enable those on the frontline to work more effectively towards interdisciplinary care by gaining a deeper understanding of the boundaries that exist in everyday clinical settings. This is done by presenting a set of case studies, theoretical chapters and applications that relate experiences, bring forth ideas and illustrate practical solutions. The chapters address many different issues such as resolving conflict, overcoming barriers to patient-flow management, and building connections through negotiation. They represent a range of approaches, rather than a single way of solving the practical problems, and have been written to serve both a scientific and an andragogical purpose. Working Across Boundaries is primarily aimed at people who are directly involved in the running and improvement of health care systems, providing them with practical guidance. It will also be of direct interest to health care professionals in clinical and managerial positions as well as researchers. Presents the latest work of the lauded Resilient Health Care Net group, developing applications of Resilience Engineering to health care, furthering safety thinking and generating applicable solutions that will benefit patient safety worldwide Enables health care professionals to become aware of the boundaries that affect their work so that they are able to use their strengths and overcome their weaknesses Written from a Safety-II perspective, where the purpose is to make sure that as much as possible goes well and the focus therefore is on everyday work rather than on failures. There are at present no other books that adopt this perspective nor which go into the practical details Provides a concise presentation of the state of resilient health care as a science, in terms of major theoretical issues and practical methods and techniques on the overarching and important topics of boundary-crossing and integration of care settings

Safety-II in PracticeDeveloping the Resilience PotentialsTaylor & Francis

Port work is still considered an occupation with very high accident rates. This essential code of practice, intended to replace both the second edition of the ILO Code of Practice on Safety and Health in Dock Work (1977) and the ILO Guide to Safety and Health in Dock Work (1976), provides valuable advice and assistance to all those charged with the management, operation, maintenance and development of ports and their safety. Offering many detailed technical illustrations and examples of good practice, the provisions of this code cover all aspects of port work where goods or passengers are loaded or unloaded to or from ships. It is not limited to international trade but applies equally to domestic

operations, including those on inland waterways. New topics are: traffic and vehicular movements of all types; activities on shore and on ship; amended levels of lighting provision; personal protective equipment; ergonomics; provisions for disabled persons; and the specific handling of certain cargoes, for example logs, scrap metal and dangerous goods.

Connecting Research and Practice for Educational Improvement presents powerful arguments and richly illustrated cases for how more collaborative relationships between researchers and educators can yield more relevant research that impacts practice. This book can be useful for anyone teaching or learning about research–practice partnerships, in both school and out-of-school settings. The chapters highlight the different dispositions and skills needed to cultivate ethical relationships and promote equity through partnerships and provide rich frameworks for guiding future work.

The completely revised and updated Third Edition of the benchmark On the Practice of Safety thoroughly covers subjects that must be mastered by anyone seeking to attain professional status in the practice of safety. Like its predecessors, the Third Edition provides a solid foundation for the study of the practice of safety in degree programs. Additionally, it serves as a basis for self-analysis by those safety professionals who seek to improve their performance, gain recognition from management for providing value, and achieve professional status. On the Practice of Safety's distinctive essay format provides a penetrating exploration of a variety of subjects not possible in a standard reference. The Third Edition expands on the content of the former edition, adding updated statistics to reflect recent trends and developments in the field. In addition to a greatly extended chapter on quality and safety, author Fred Manuele contributes four new chapters: Heinrich Revisited: Truisms or Myths Addressing Severe Injury Potential Acceptable Risk Behavior-Based Safety Each chapter is a self-contained unit that offers comprehensive coverage of a particular topic. All of the chapters in the Third Edition reflect the increasing professional incidence of safety, occupational health, and environmental affairs falling under a common management, and address each issue accordingly.

How are today's 'hearts and minds' programs linked to a late-19th century definition of human factors as people's moral and mental deficits? What do Heinrich's 'unsafe acts' from the 1930's have in common with the Swiss cheese model of the early 1990's? Why was the reinvention of human factors in the 1940's such an important event in the development of safety thinking? What makes many of our current systems so complex and impervious to Tayloristic safety interventions? 'Foundations of Safety Science' covers the origins of major schools of safety thinking, and traces the heritage and interlinkages of the ideas that make up safety science today. Features Offers a comprehensive overview of the theoretical foundations of safety science Provides balanced treatment of approaches since the early 20th century, showing interlinkages and cross-connections Includes an overview and key points at the beginning of each chapter and study questions at the end to support teaching use Uses an accessible style, using technical language where necessary Concentrates on the philosophical and historical traditions and assumptions that underlie all safety approaches

This is a practical guidebook for developing effective occupational health and safety (OHS)

policies and programs. It focuses on the key topics essential to promoting and managing national and enterprise OHS systems. It presents a concise overview of the issues involved, together with specific guidelines for policy design, implementation, and management at both national and enterprise levels. The operational aspects of meeting health and safety requirements are also covered, with detailed sections on legislation and enforcement, occupational health surveillance, and preventive and protective measures, as well as health education and training. The second edition covers new areas such as the recent ILO standard on the promotion of OSH, HIV/AIDS and the world of work, occupational safety and health management systems, and new chemical safety information tools.

Safety analysis can be applied as a practical tool in occupational safety. It has three main elements: the identification of hazards, the assessment of risks that arise, and the generation of measures to increase the level of safety. A number of simple methods are described that can be used in industry and the workplace, such as deviation analysis,

With a focus on five major regions globally (UK, US, Europe, Canada and Australia) Identifying and Managing Risk at Work outlines key regional factors affecting risk and its management. This volume looks at the social production and social construction of risk as well as taking a labour process approach and socio – political perspective to investigate the nature and causes of work-related risk. In addition, there are several issues included that contribute to identifying risk at work such as climate change, the ‘gig’ economy and the ‘me too’ movement. Readers will gain a picture of some of the major current issues that are affecting risk under globalisation. Drawing on these key aspects of risk, students, academics, practitioners and policy makers will gain a better understanding of how risk is conceptualised and identified, and of the roles of management and employees in dealing with risk. This book will be of interest to researchers and practitioners to help gain an understanding of risk for a number of regions, and how several current issues in globalisation can be seen in their risk context.

Accident investigation and risk assessment have for decades focused on the human factor, particularly ‘human error’. This bias towards performance failures leads to a neglect of normal performance. It assumes that failures and successes have different origins so there is little to be gained from studying them together. Erik Hollnagel believes this assumption is false and that safety cannot be attained only by eliminating risks and failures. The alternative is to understand why things go right and to amplify that. The ETTO Principle looks at the common trait of people at work to adjust what they do to match the conditions. It proposes that this efficiency-thoroughness trade-off (ETTO) is normal. While in some cases the adjustments may lead to adverse outcomes, these are due to the same processes that produce successes.

Food Safety and Quality Systems in Developing Countries, Volume 2: Case Studies of Effective Implementation begins with a general overview of some of the issues and considerations that impact effective implementation of food safety and quality systems and put this in the context of some of the more noteworthy foodborne illness incidents in the recent past. This book is a rich source of information about the practical application of food science and technology to solving food safety and quality problems in the food industry. Students, researchers, professionals, regulators and market access practitioners will find this book an irreplaceable addition to their arsenal as they deal with issues regarding food safety and quality for the products with which they are working. Explores the keys to effective implementation of Food Safety and Quality Systems (FSQS), with a focus on selected, specific food safety and quality challenges in developing countries and how these can be mitigated Provides a treasure trove of information on tropical foods and their production that have applicability to similar foods and facilities around the world Presents case studies examining national, industry-wide or firm-level issues, and potential solutions

#1 NEW YORK TIMES BESTSELLER • ONE OF TIME MAGAZINE’S 100 BEST YA BOOKS OF ALL TIME The extraordinary, beloved novel about the ability of books to feed the soul even

in the darkest of times. When Death has a story to tell, you listen. It is 1939. Nazi Germany. The country is holding its breath. Death has never been busier, and will become busier still. Liesel Meminger is a foster girl living outside of Munich, who scratches out a meager existence for herself by stealing when she encounters something she can't resist–books. With the help of her accordion-playing foster father, she learns to read and shares her stolen books with her neighbors during bombing raids as well as with the Jewish man hidden in her basement. In superbly crafted writing that burns with intensity, award-winning author Markus Zusak, author of I Am the Messenger, has given us one of the most enduring stories of our time. "The kind of book that can be life-changing." —The New York Times "Deserves a place on the same shelf with The Diary of a Young Girl by Anne Frank." —USA Today DON'T MISS BRIDGE OF CLAY, MARKUS ZUSAK'S FIRST NOVEL SINCE THE BOOK THIEF.

For Resilience Engineering, 'failure' is the result of the adaptations necessary to cope with the complexity of the real world, rather than a breakdown or malfunction. The performance of individuals and organizations must continually adjust to current conditions and, because resources and time are finite, such adjustments are always approximate. This definitive new book explores this groundbreaking new development in safety and risk management, where 'success' is based on the ability of organizations, groups and individuals to anticipate the changing shape of risk before failures and harm occur. Featuring contributions from many of the worlds leading figures in the fields of human factors and safety, Resilience Engineering provides thought-provoking insights into system safety as an aggregate of its various components, subsystems, software, organizations, human behaviours, and the way in which they interact. The book provides an introduction to Resilience Engineering of systems, covering both the theoretical and practical aspects. It is written for those responsible for system safety on managerial or operational levels alike, including safety managers and engineers (line and maintenance), security experts, risk and safety consultants, human factors professionals and accident investigators.

Building on the revolutionary Institute of Medicine reports To Err is Human and Crossing the Quality Chasm, Keeping Patients Safe lays out guidelines for improving patient safety by changing nursesâ€™ working conditions and demands. Licensed nurses and unlicensed nursing assistants are critical participants in our national effort to protect patients from health care errors. The nature of the activities nurses typically perform â€" monitoring patients, educating home caretakers, performing treatments, and rescuing patients who are in crisis â€" provides an indispensable resource in detecting and remedying error-producing defects in the U.S. health care system. During the past two decades, substantial changes have been made in the organization and delivery of health care â€" and consequently in the job description and work environment of nurses. As patients are increasingly cared for as outpatients, nurses in hospitals and nursing homes deal with greater severity of illness. Problems in management practices, employee deployment, work and workspace design, and the basic safety culture of health care organizations place patients at further risk. This newest edition in the groundbreaking Institute of Medicine Quality Chasm series discusses the key aspects of the work environment for nurses and reviews the potential improvements in working conditions that are likely to have an impact on patient safety.

Next Generation Safety Leadership illustrates practical applications that bring

theory to life through case studies and stories from the author's years of experience in high-risk industries. The book provides safety leaders and their organisations with a compelling case for change. A key predictor of safety performance is trust, and its associated components of integrity, ability and benevolence (care). The next generation of safety leaders will take the profession forward by creating trust and psychological safety. The book provides safety leaders with actionable goals to enable positive change and translates academic languages into practical applications. It leaves the reader with a clear strategy to move forward in developing a safety plan and utilizes stories, humor, and case studies set in high-risk industries. Written primarily for the safety community and can be used to influence day to day safety operations in high-risk organisations.
v. 1. Research findings -- v. 2. Concepts and methodology -- v. 3. Implementation issues -- v. 4. Programs, tools and products.

Food Safety and Human Health provides a framework to manage food safety risks and insure safe food system. This reference takes a reader-friendly approach in presenting the entire range of toxic compounds found naturally in foods or introduced by industrial contamination or food processing methods. It provides the basic principles of food toxicology and its processing and safety for human health to help professionals and students better understand the real problems of toxic materials. This essential resource will help readers address problems regarding food contamination and safety. It will be particularly useful for graduate students, researchers and professionals in the agri-food industry. Encompasses the first pedagogic treatment of the entire range of toxic compounds found naturally in foods or introduced by industrial contamination or food processing methods Features areas of vital concern to consumers, such as the toxicological implications of food, implications of food processing and its safety to human health Focuses on the safety aspects of genetically modified foods currently available

The Handbook of School Violence and School Safety: International Research and Practice has become the premier resource for educational and mental health professionals and policymakers seeking to implement effective prevention and intervention programs that reduce school violence and promote safe and effective schools. It covers the full range of school violence and safety topics from harassment and bullying to promoting safe, secure, and peaceful schools. It also examines existing school safety programs and includes the multi-disciplinary research and theories that guide them. Examinations of current issues and projections of future research and practice are embedded within each chapter. This volume maps the boundaries of this rapidly growing and multidisciplinary field of study. Key features include... Comprehensive Coverage – The chapters are divided into three parts: Foundations; Assessment and Measurement; Prevention and Intervention Programs. Together they provide a comprehensive review of what is known about the types, causes, and effects of school violence and the most effective intervention programs that have been developed to

prevent violence and promote safe and thriving school climates. Evidence-based Practice – Avoiding a one-size-fits-all approach to prevention and intervention, the focus throughout is on the application of evidence-based practice to address factors most commonly associated with school violence and safety. Implications for Practice – Each chapter bridges the research-to-practice gap, with a section delineating implications for practice of the foregoing research. Chapter Structure – To ensure continuity and coherence across the book, each chapter begins with a brief abstract and ends with a table showing the implications for practice. International Focus – Acknowledging the fact that school violence and safety is a global concern, this edition has increased its focus on insights learned from cross-national research and practice outside the USA. Expertise – The editors and authors are experienced researchers, teachers, practitioners, and leaders in the school violence field, their expertise includes their breadth and depth of knowledge and experience, bridging research, policy, and practice and representing a variety of international organizations studying school violence around the world.

Properly performing health care systems require concepts and methods that match their complexity. Resilience engineering provides that capability. It focuses on a system's overall ability to sustain required operations under both expected and unexpected conditions rather than on individual features or qualities. This book contains contributions from international experts in health care, organisational studies and patient safety, as well as resilience engineering. Whereas current safety approaches primarily aim to reduce the number of things that go wrong, Resilient Health Care aims to increase the number of things that go right.

The first edition of Handbook of Human Factors and Ergonomics in Health Care and Patient Safety took the medical and ergonomics communities by storm with in-depth coverage of human factors and ergonomics research, concepts, theories, models, methods, and interventions and how they can be applied in health care. Other books focus on particular human factors and ergonomics issues such as human error or design of medical devices or a specific application such as emergency medicine. This book draws on both areas to provide a compendium of human factors and ergonomics issues relevant to health care and patient safety. The second edition takes a more practical approach with coverage of methods, interventions, and applications and a greater range of domains such as medication safety, surgery, anesthesia, and infection prevention. New topics include: work schedules error recovery telemedicine workflow analysis simulation health information technology development and design patient safety management Reflecting developments and advances in the five years since the first edition, the book explores medical technology and telemedicine and puts a special emphasis on the contributions of human factors and ergonomics to the improvement of patient safety and quality of care. In order to take patient safety to the next level, collaboration between human factors

professionals and health care providers must occur. This book brings both groups closer to achieving that goal.

This book presents a transdisciplinary, data-driven approach to preventing violence in schools, while outlining effective strategies for collaboration with key stakeholders to promote safety.

The Food Safety Handbook: A Practical Guide for Building a Robust Food Safety Management System, contains detailed information on food safety systems and what large and small food industry companies can do to establish, maintain, and enhance food safety in their operations. This new edition updates the guidelines and regulations since the previous 2016 edition, drawing on best practices and the knowledge IFC has gained in supporting food business operators around the world. The Food Safety Handbook is indispensable for all food business operators -- anywhere along the food production and processing value chain -- who want to develop a new food safety system or strengthen an existing one.

Presents a research-based perspective on patient safety, drawing together the most recent ideas on how to understand patient safety issues, along with how research findings are used to shape policy and practice.

Safety has traditionally been defined as a condition where the number of adverse outcomes was as low as possible (Safety-I). From a Safety-I perspective, the purpose of safety management is to make sure that the number of accidents and incidents is kept as low as possible, or as low as is reasonably practicable. This means that safety management must start from the manifestations of the absence of safety and that - paradoxically - safety is measured by counting the number of cases where it fails rather than by the number of cases where it succeeds. This unavoidably leads to a reactive approach based on responding to what goes wrong or what is identified as a risk - as something that could go wrong. Focusing on what goes right, rather than on what goes wrong, changes the definition of safety from ‘avoiding that something goes wrong’ to ‘ensuring that everything goes right’. More precisely, Safety-II is the ability to succeed under varying conditions, so that the number of intended and acceptable outcomes is as high as possible. From a Safety-II perspective, the purpose of safety management is to ensure that as much as possible goes right, in the sense that everyday work achieves its objectives. This means that safety is managed by what it achieves (successes, things that go right), and that likewise it is measured by counting the number of cases where things go right. In order to do this, safety management cannot only be reactive, it must also be proactive. But it must be proactive with regard to how actions succeed, to everyday acceptable performance, rather than with regard to how they can fail, as traditional risk analysis does. This book analyses and explains the principles behind both approaches and uses this to consider the past and future of safety management practices. The analysis makes use of common examples and cases from domains such as aviation, nuclear power production, process management and health care. The final chapters explain the theoretical and practical consequences of the new perspective on the level of day-to-day operations as well as on the level of strategic management (safety culture). Safety-I and Safety-II is written for all professionals responsible for their organisation's safety, from strategic planning on the executive level to day-to-day operations in the field. It presents the detailed and tested arguments for a transformation from protective to productive safety management.

Experts estimate that as many as 98,000 people die in any given year from medical errors that occur in hospitals. That's more than die from motor vehicle accidents, breast cancer, or AIDS--three causes that receive far more public attention. Indeed, more people die annually from medication errors than from workplace injuries. Add the financial cost to the human tragedy, and medical error easily rises to the top ranks of urgent, widespread public problems. To Err Is Human breaks the silence that has surrounded medical errors and their

consequence--but not by pointing fingers at caring health care professionals who make honest mistakes. After all, to err is human. Instead, this book sets forth a national agenda--with state and local implications--for reducing medical errors and improving patient safety through the design of a safer health system. This volume reveals the often startling statistics of medical error and the disparity between the incidence of error and public perception of it, given many patients' expectations that the medical profession always performs perfectly. A careful examination is made of how the surrounding forces of legislation, regulation, and market activity influence the quality of care provided by health care organizations and then looks at their handling of medical mistakes. Using a detailed case study, the book reviews the current understanding of why these mistakes happen. A key theme is that legitimate liability concerns discourage reporting of errors--which begs the question, "How can we learn from our mistakes?" Balancing regulatory versus market-based initiatives and public versus private efforts, the Institute of Medicine presents wide-ranging recommendations for improving patient safety, in the areas of leadership, improved data collection and analysis, and development of effective systems at the level of direct patient care. To Err Is Human asserts that the problem is not bad people in health care--it is that good people are working in bad systems that need to be made safer. Comprehensive and straightforward, this book offers a clear prescription for raising the level of patient safety in American health care. It also explains how patients themselves can influence the quality of care that they receive once they check into the hospital. This book will be vitally important to federal, state, and local health policy makers and regulators, health professional licensing officials, hospital administrators, medical educators and students, health caregivers, health journalists, patient advocates--as well as patients themselves. First in a series of publications from the Quality of Health Care in America, a project initiated by the Institute of Medicine

The Nonhuman Primate in Drug Development and Safety Assessment is a valuable reference dedicated to compiling the latest research on nonhuman primate models in nonclinical safety assessment, regulatory toxicity testing and translational science. By covering important topics such as study planning and conduct, inter-species genetic drift, pathophysiology, animal welfare legislation, safety assessment of biologics and small molecules, immunotoxicology and much more, this book provides scientific and technical insights to help you safely and successfully use nonhuman primates in pharmaceutical toxicity testing. A comprehensive yet practical guide, this book is intended for new researchers or practicing toxicologists, toxicologic pathologists and pharmaceutical scientists working with nonhuman primates, as well as graduate students preparing for careers in this area. Covers important topics such as species selection, study design, experimental methodologies, animal welfare and the 3Rs (Replace, Refine and Reduce), social housing, regulatory guidelines, comparative physiology, reproductive biology, genetic polymorphisms and more Includes practical examples on techniques and methods to guide your daily practice Offers a companion website with high-quality color illustrations, reference values for safety assessment and additional practical information such as study design considerations, techniques and procedures and dosing and sampling volumes

This text uses a case-based approach to share knowledge and techniques on how to operationalize much of the theoretical underpinnings of hospital quality and safety. Written and edited by leaders in healthcare, education, and engineering, these 22 chapters provide insights as to where the field of improvement and safety science is with regards to the views and aspirations of healthcare advocates and patients. Each chapter also includes vignettes to further solidify the theoretical underpinnings and drive home learning. End of chapter commentary by the editors highlight important concepts and connections between various chapters in the text. Patient Safety and Quality Improvement in Healthcare: A Case-Based Approach presents a novel approach towards hospital safety and quality with the goal to help

healthcare providers reach zero harm within their organizations.