Some organizations function in high risk environments where error or failure, though uncommon, results in catastrophic loss, bodily injury, or death. Some believe that the complexity of situations contributes to these errors and failures. Though counter-intuitive, others believe that system complexity can mitigate or prevent errors and failures. These latter systems have developed a high degree of reliability.

Researchers have identified elements of these High Reliability Organizations (HRO) which can be applied to other fields. The same systems developed on US Navy aircraft carriers can apply in fire suppression, law enforcement activity, medicine, and business management.

This conference brings together national and international experts in high reliability from the US Navy, fire service, medicine, law enforcement, and academic management programs. This conference will present current research and knowledge for use by professionals in medicine, law enforcement, fire service and business management. The conference’s target attendee comes from positions in administration, operations, command and management of high risk systems.

**August 10-11, 2003**

Performing Arts Center
Crafton Hills College
Yucaipa, California

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GETTING IT RIGHT: The science behind solving the unsolvable (with the duty to act)

In the fields of resuscitation and emergency services processes often do not play out in a predictable or reliable manner. In these situations, evidence-based medicine, rules and protocols lose effectiveness. This program will present methods for improved sensemaking and objective-based processes to allow one to learn what works through action.

Getting it right: Preventing large catastrophes from small failures
Large catastrophic failure has its roots in less consequential, therefore unrecognized, failures within the system or failures of the system. Will catastrophic failure develop when a system faces unexpected problems in high-risk or dangerous environments with members of varying abilities? Does system complexity make failure inevitable or can the right system complexity within a highly reliable organization mitigate catastrophe?

Getting it right: The problems of command
Time pressure and grave threats make up the main problems of command and control in high risk situations. The military, the air transport industry, and experts in Organizational Behavior study the problems of command and control. How will the same elements used in combat or the cockpit of a transport jet assist medicine, law enforcement, the fire service, or business?

Getting it right: The science of accident theory
High Reliability Organizations (HROs) value reliability over efficiency, develop appropriate sensemaking, and engender an overall safety climate to reduce accidents and incidents while functioning in a hazardous environment. Researchers developed this concept on US Navy aircraft carriers and have further studied them in Naval Aviation, wildland firefighting, operating rooms, law enforcement activity and hostage negotiations. Can this translate between disciplines, making us all stronger?

Getting it right: Working through dynamic system failure
Because of the nature of life, accidents and contingencies will occur. In hazardous situations, rapid and safe resolution may tax one’s resources. Problems may seem insurmountable when the system also has pathology and hazards. Can an individual use the methods of HROs in organizations which do not recognize the value of high reliability? How can one accomplish this?

Getting it right: The austere environment
A responsive system has access to resources sufficient for fluctuating demands and plan for occasional spikes in demands. Lack of sufficient funds or paucity of available resources creates an austere working environment. High risk situations occur in these environments, such as pre-hospital, rural hospital, or nursing home settings. Can the principles of HROs mitigate the effects of the austere environment or unexpected spikes in demands?

Getting it right: Improving the system
Vocabulary, theory and the ability to present a clear concise argument can help leaders and managers incorporate HRO methods in everyday function. Linking with others who share these beliefs will strengthen all of us.

Target Audience
Because of the cross-disciplinary nature of the material, the attendee will be expected to extract knowledge from these presentations for use in the attendee’s practice.
• Physicians, Nurses, Respiratory Care Practitioners and Pharmacists in management and leadership positions
• Operational and command chief officers in Fire Service and Law Enforcement
• Quality Improvement Program managers
• Business leaders faced with high financial risk
• Risk Management Officers

This conference combines theory and practices with illustrative examples. “It is other people’s stories that make us strong.” Anthony Hare
Conference Coordinators

• Daved van Stralen, M.D.; Medical Director: Totally Kids® Specialty Healthcare, San Bernardino County Fire Department, American Medical Response, San Bernardino County and Desert Cities, San Bernardino City Fire Department, Emergency Medical Dispatch Program. Instructor, Critical Care and General Pediatrics, Department of Pediatrics, School of Medicine, Loma Linda University; Adjunct Professor, EMS, Crafton Hills College; former Los Angeles City Fire Dept. Paramedic.
• Gary Provansal; Battalion Chief, Training and Safety Division, San Bernardino County Fire Department
• Mat Fratus, B.S.; Division Chief, San Bernardino City Fire Department

Military

• Thomas Mercer, Adm., USN (Ret.)
• Anthony P. Ciavarelli, Ed.D.; Professor of Psychology, School of Aviation Safety, Former Associate Provost of Instruction, Naval Postgraduate School, Monterey, CA.

Law Enforcement

• Anthony Hare, M.A.; Capt. (Ret.); Oakland Police Department, Coordinator, Hostage Negotiation Team; Consultant, Greek National Police Negotiators and Psychologists, for 2004 Olympic Games; Author, Expediting Access to a Disaster Scene, Special report to the U.S. Congress.
• Pete Sarna, M.A.; Captain (Ret.), Oakland Police Department; East Bay Regional Park District Department of Public Safety (Fire, EMS, Law Enforcement).

Fire Service

• Kevin Brame, M.A.; Battalion Chief, Orange County Fire Authority, California; National Faculty, National Fire Academy
• Joe Martin, Battalion Chief, Los Angeles City Fire Department; Former US Air Force Pararescue.

Medicine

• David Gaba, M.D.; Director, Patient Safety Center of Inquiry at Veterans Administration, Palo Alto Health Care System; Professor, Department of Anesthesia, Stanford University.
• Racquel Calderon, B.S., RCP, RRT; Director of Respiratory Services, Totally Kids® Specialty Healthcare; Co-Chair, Alternate Site Committee, California Society for Respiratory Care.
• J. Randall Scott, B.S., RCP, RRT; Administrative Director, Respiratory Services; Loma Linda University Medical Center and Children’s Hospital, Loma Linda University Community Center; Instructor, Department of Cardiopulmonary Sciences, School of Allied Health Professions, Loma Linda University.

Public Safety Education

• James Holbrook, Ed.D.; Department of Emergency Services, Crafton Hills College, Yucaipa, California.

Academic

• Karl E. Weick, Ph.D.; Rensis Likert Distinguished University Professor of Organizational Behavior, Professor of Psychology, University of Michigan Business School; Consultant on Wildland Firefighting, U.S. Forest Service.
• Karlene Roberts, Ph.D.; Professor, Walter A. Haas School of Business, UC, Berkeley; Committee for Nursing and Patient Safety, Institute of Medicine; Research Committee of The National Patient Safety Foundation, American Medical Association; Advisory Board for the Engineering of Complex Systems Group, NASA; Contributor, Policy formation for Federal Aviation Administration; Contributor, policy formation for U.S. Coast Guard, U.S. Navy, California State Lands Commission, Mineral Management Service, U.S. Department of Interior.
• Greg Bigley, Ph.D.; Assistant Professor of Management, Neal and Jan Dempsey Faculty Fellow, University of Washington Business School, Seattle, WA.

Conference format is by panel discussion. Please submit questions for the faculty with your registration.
Conference Objectives

At the end of the program attendees should be able to:

• Describe two means of flexibility useful for systems where potential for error and disaster are overwhelming.

• Describe safety as the cultivation of mindfulness.

• Describe two elements from aircraft carrier combat operations that can increase safety in medicine and public safety.

• Describe the environment that led to high reliability studies in the United States Navy and benefits that resulted.

• Describe two dangers of leadership in systems with potential for grave error or disaster.

• Describe how to recognize and manage unfolding processes that can develop into disaster.

• Contrast management of error as emergent events rather than mistakes.

• Describe three elements of safety culture.

• Describe how organizational factors can lead to or reduce unsafe behavior.

• Describe variances in culture of hospitals and industry that can lead to safe and unsafe practices.

• Contrast open-tree decision algorithms and Boyd-loop decision techniques.

• Identify two elements of a system where evidence-based methods would not apply.

• Contrast evidence-based decision systems and objective (or goal)-based decision systems.

• Describe three impediments to instituting high reliability into an organization.

• Describe three naturalistic resources that facilitate instituting high reliability into an organization.

Continuing Education Units

• Loma Linda University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. Loma Linda University School of Medicine designates this continuing medical education activity for up to 14.0 hours in Category I credit towards the AMA Physician’s Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

• Totally Kids® Specialty Healthcare is approved by the California Board of Registered Nursing, Provider Number 2453, to offer this course for 14.0 contact hours.

• Respiratory Care reciprocates with BRN nursing credits.

• EMTs and Paramedics reciprocate with BRN nursing credits.

• This course has been designated by the California Board of Pharmacy as meeting its Continuing Education requirements for 14.0 hours of credit. Pharmacists completing this course prior to August 2005 may receive credit. Provider number 180: accredited by AES.

• Loma Linda University Medical Center, Staff Development is a Continuing Professional Education Accredited Provider with the Commission on Dietetic Registration. Registered dietitians and dietetic technicians, registered will receive 14.0 continuing professional education units for completion of this program.

• Course meets the qualifications for 14.0 hours of continuing education credit for MFCCs and/or LCSWs as required by the California Board of Behavioral Sciences, Provider #: PCE 437.

• POST 14.0 hours of Continuing Education Credits applied for.

Organizers Policies

The organizers of this conference are committed to the policy that all persons shall have equal access to all parts of the program and related facilities without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance, veteran status or sexual orientation.

Conference facilities meet ADA requirements for accessibility. Registrants who require assistance with access to conference facilities may contact Crafton Hills College at (909) 794-2161.
Program

Sunday, August 10, 2003

7:30 Registration and Continental Breakfast

8:15 Welcome, HRO and Its Application
   Daved van Stralen

8:30 Managing the Unexpected
   Karl Weick

9:15 HRO: From Aircraft Carriers to Medicine and
   Public Safety
   Karlene Roberts

9:45 Morning Break

10:00 Leadership and Trust: Risks and Dangers
   Panel Moderated by Gary Provansal
   Kevin Brame, Randy Scott, Greg Bigley

11:20 Unfolding Processes and Error Evolution
   Panel Moderated by Mat Fratus
   Anthony Hare, Pete Sarna, Karl Weick

12:30 Lunch provided.

1:30 Organizing Against the Forces of
   Disorganization
   Panel Moderated by Gary Provansal
   Pete Sarna, Kevin Brame, Greg Bigley

3:00 Break

3:15 Culture and the Climate of Safety
   Panel Moderated by Daved van Stralen
   Racquel Calderon, David Gaba, Anthony Ciavarelli

4:45 Adjourn

Monday, August 11, 2003

7:30 Continental Breakfast

8:00 Putting HROs into Action
   Karlene Roberts

8:30 The United States Navy and HRO
   Panel Moderated by Daved van Stralen
   Thomas Mercer, Anthony Ciavarelli, Karlene Roberts

9:40 Morning Break

10:00 Decision Making Against Threat:
   Naturalistic and Effective
   Panel Moderated by Gary Provansal
   Pete Sarna, Daved van Stralen, Anthony Ciavarelli

11:20 Crew Resource Management:
   Naval Aviation and Hospital Operating Room
   Panel Moderated by Daved van Stralen
   David Gaba, Anthony Ciavarelli

12:30 Lunch provided.

1:30 Finding Form and Function Within
   Randomness
   Panel Moderated by Mat Fratus
   Joe Martin, Anthony Hare, Daved van Stralen, Karlene Roberts

3:00 Break

3:15 Institute This!
   Panel Moderated by Gary Provansal
   Racquel Calderon, Daved van Stralen, James Holbrook, Karlene Roberts

4:45 Adjourn

GETTING IT RIGHT: The science behind solving the unsolvable (with the duty to act)
August 10-11, 2003

First Name:  MI:  Last Name:

Title:  □Dr. □Mr. □Ms. □Mrs. License #:

Degree:  □MD □DO □RN □RCP □EMT □Other

Conference Fee—Including CME/CEU $300 Total amount Paid:

Fee After July 15, 2003 $350 Method of Payment:  □Check □Visa □MC □Discover

Conference format is by panel discussion. Please submit questions for the faculty with your registration.

Make check payable to LLU-CME
Loma Linda University School of Medicine; Continuing Medical Education; LLUMC, Room A505; Loma Linda, CA  92354

You can register online at www.highreliability.org or fax this form to (909) 558-0330
Conference Housing
Radisson Hotel
295 North “E” St.
San Bernardino, CA  92401
Room rate:  Single     $84.00 + tax
           Double $94.00 + tax

To receive these discounted rates, mention “San Bernardino Emergency Training Center”

Reservations:  (909) 381-6181 or (800) 333-3333
Rates reserved until July 19, 2003.

Please notify us if you need transportation from the hotel to the conference site.

Register by mail or online at
www.highreliability.org

Conference Fees
$300 - if paid before July 15, 2003
$350 - if paid after July 15, 2003

A full refund is available if your signed cancellation is received in writing by mail or fax on or before July 15, 2003. Requests should be sent to Loma Linda University School of Medicine; Continuing Medical Education; LLUMC, Room A505; Loma Linda, CA 92354, or fax to (909) 558-0330.

Registration fee includes 14 hours of continuing education units for physicians, Registered Nurses, Respiratory Care Practitioners, Pharmacists, Emergency Medical Technicians, Paramedics, Marriage & Family Counselors, Licensed Clinical Social Workers, Pharmacists, and Dietitians. (Peace Officers CE credits applied for.) For additional conference information call Susie Castello at (909) 558-4250 or send email to admin@highreliability.org.

High Reliability Organization Theory
GETTING IT RIGHT:
The science behind solving the unsolvable (with the duty to act)

Continuing Medical Education
LLUMC, Room A505
Loma Linda, CA 92354