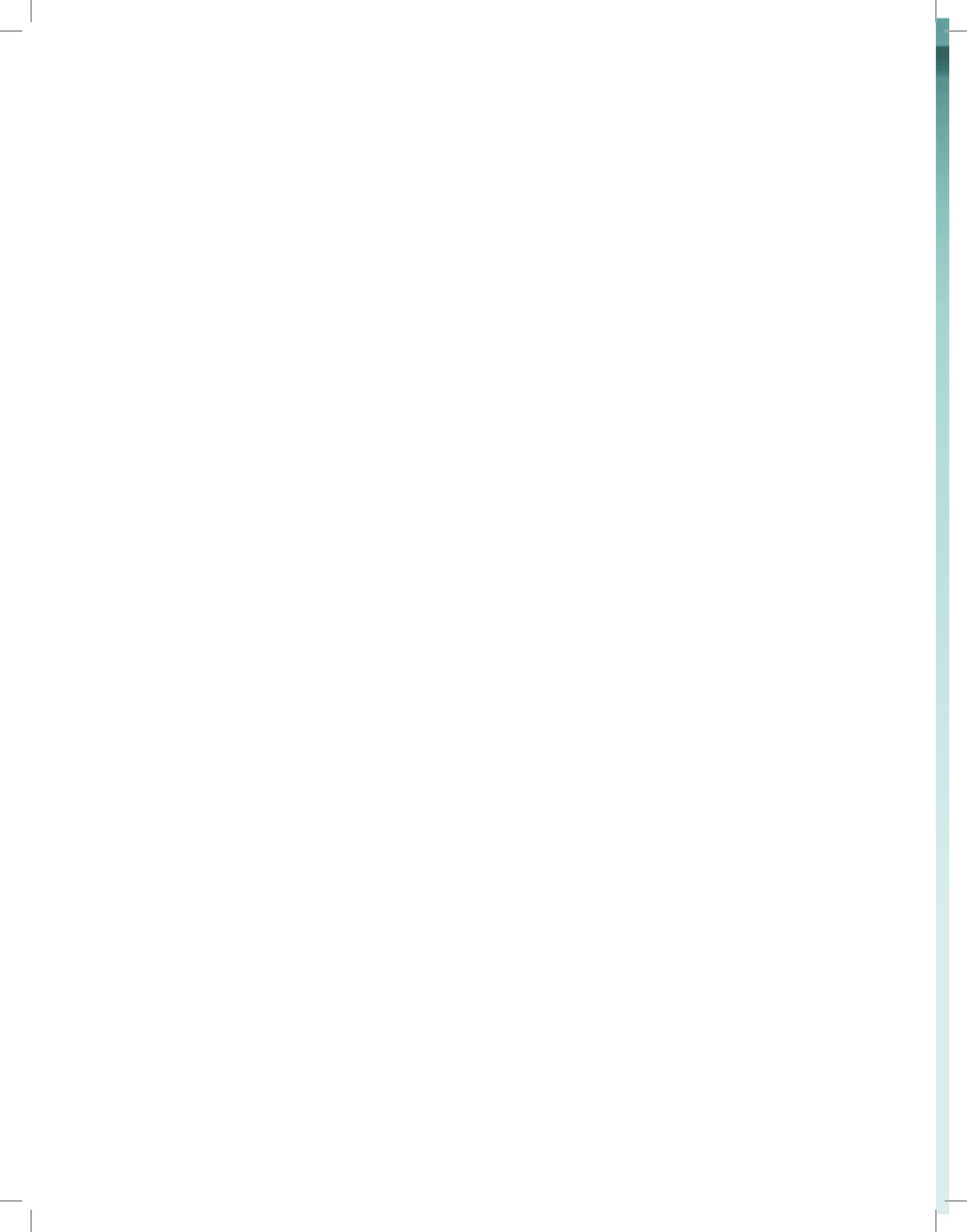
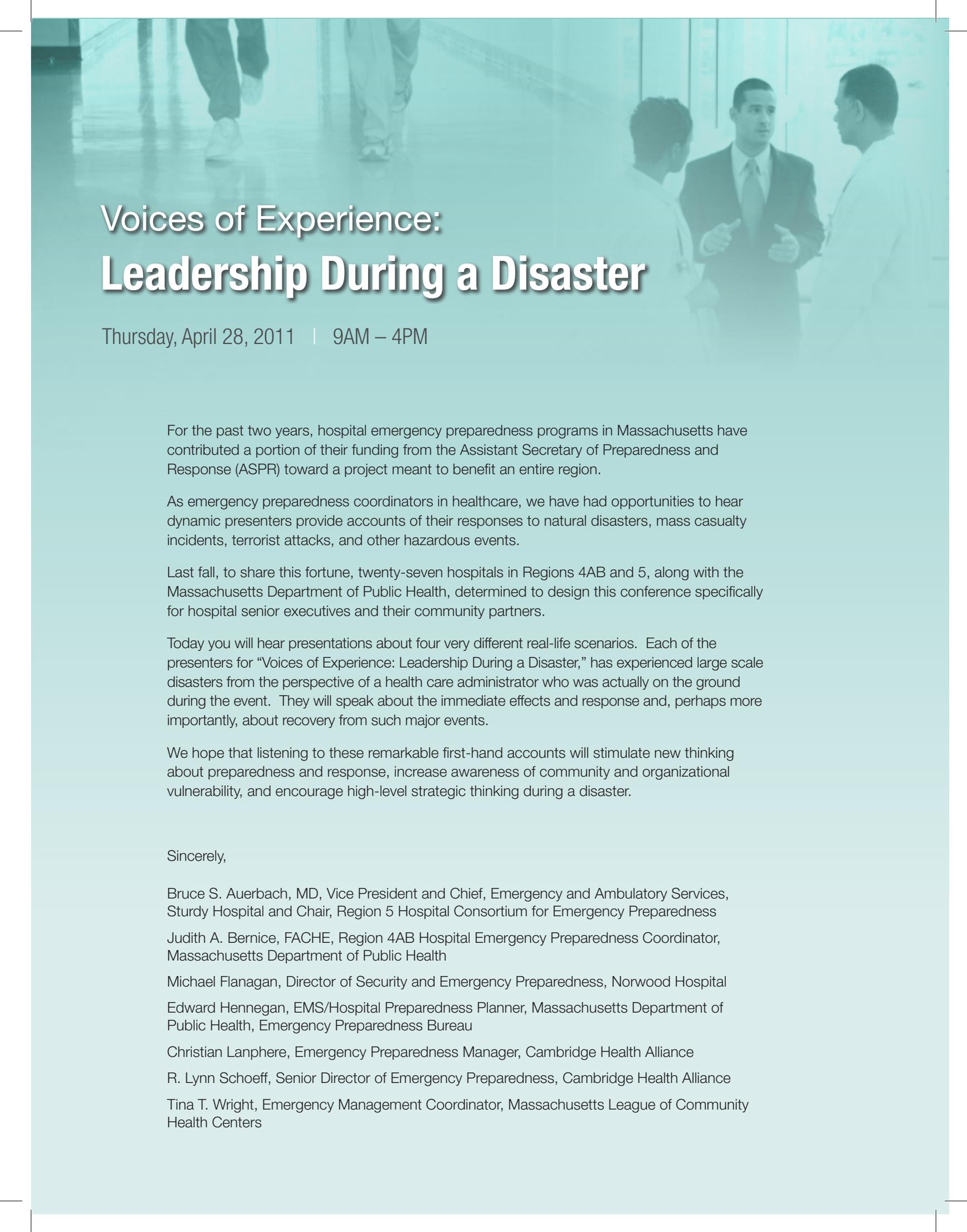


Voices of Experience:
Leadership During a Disaster

Thursday, April 28, 2011 | 9AM – 4PM

Four Points by Sheraton Norwood | Norwood, MA





Voices of Experience: Leadership During a Disaster

Thursday, April 28, 2011 | 9AM – 4PM

For the past two years, hospital emergency preparedness programs in Massachusetts have contributed a portion of their funding from the Assistant Secretary of Preparedness and Response (ASPR) toward a project meant to benefit an entire region.

As emergency preparedness coordinators in healthcare, we have had opportunities to hear dynamic presenters provide accounts of their responses to natural disasters, mass casualty incidents, terrorist attacks, and other hazardous events.

Last fall, to share this fortune, twenty-seven hospitals in Regions 4AB and 5, along with the Massachusetts Department of Public Health, determined to design this conference specifically for hospital senior executives and their community partners.

Today you will hear presentations about four very different real-life scenarios. Each of the presenters for “Voices of Experience: Leadership During a Disaster,” has experienced large scale disasters from the perspective of a health care administrator who was actually on the ground during the event. They will speak about the immediate effects and response and, perhaps more importantly, about recovery from such major events.

We hope that listening to these remarkable first-hand accounts will stimulate new thinking about preparedness and response, increase awareness of community and organizational vulnerability, and encourage high-level strategic thinking during a disaster.

Sincerely,

Bruce S. Auerbach, MD, Vice President and Chief, Emergency and Ambulatory Services, Sturdy Hospital and Chair, Region 5 Hospital Consortium for Emergency Preparedness

Judith A. Bernice, FACHE, Region 4AB Hospital Emergency Preparedness Coordinator, Massachusetts Department of Public Health

Michael Flanagan, Director of Security and Emergency Preparedness, Norwood Hospital

Edward Hennegan, EMS/Hospital Preparedness Planner, Massachusetts Department of Public Health, Emergency Preparedness Bureau

Christian Lanphere, Emergency Preparedness Manager, Cambridge Health Alliance

R. Lynn Schoeff, Senior Director of Emergency Preparedness, Cambridge Health Alliance

Tina T. Wright, Emergency Management Coordinator, Massachusetts League of Community Health Centers



Voices of Experience:
Leadership During a Disaster

Agenda

Thursday, April 28, 2011

- 8:30 AM **REGISTRATION**
- 9:00 AM **Opening Remarks – Peter Brown, Emcee**
- 9:15 AM **Welcome – John Auerbach, MBA**
Commissioner, Massachusetts Department of Public Health
- 9:30 AM **Managing the Unthinkable – Jane Metzger, RN, PhD**
Senior Vice President CNO, Saint Vincent Hospital
- 10:30 AM **BREAK**
- 10:45 AM **The Virginia Tech Response – M. Scott Hill, MEd, MHA, FACHE**
Chief Executive Officer, LewisGale Hospital Montgomery
- 11:45 AM **LUNCH**
- 12:30 PM **Response to the 35W Bridge Collapse – John L. Hick, MD**
*Medical Director, Emergency Preparedness, Hennepin County Medical Center;
Associate EMS Medical Director, Hennepin County Medical Center*
- 1:30 PM **Central London Suicide Bombings - 7th July 2005 – David Whitmore**
Senior Clinical Advisor to the Medical Director, London Ambulance Service Trust
- 2:30 PM **Wrap-Up & Networking**
- 4:00 PM **ADJOURN**

This conference is sponsored by 27 participating hospitals in Massachusetts Regions 4AB and 5: Beth Israel Deaconess Medical Center – Needham Campus, Brockton Hospital, Cambridge Hospital, Cape Cod Hospital, Caritas Good Samaritan Medical Center, Caritas Norwood Hospital, Charlton Memorial Hospital, Emerson Hospital, Falmouth Hospital, Jordan Hospital, Marlborough Hospital, Martha's Vineyard Hospital, Metrowest Medical Center – Framingham and Natick campuses, Milton Hospital, Morton Hospital and Medical Center, Nantucket Cottage Hospital, Newton-Wellesley Hospital, Quincy Medical Center, Somerville Hospital, South Shore Hospital, St. Anne's Hospital Corporation, St. Luke's Hospital, Sturdy Memorial Hospital, Tobey Hospital, Winchester Hospital, and Whidden Memorial Hospital.

Speaker Biographies

John M. Auerbach, MBA

Commissioner, Massachusetts Department of Public Health

John Auerbach was appointed Massachusetts's Commissioner of Public Health in April 2007. Under his leadership the Department has developed new and innovative programs to address racial and ethnic disparities, to promote wellness (including the Mass in Motion campaign), to combat chronic disease and to support the successful implementation of the state's health care reform initiative.

Prior to his appointment as Commissioner, Auerbach had been the Executive Director of the Boston Public Health Commission for nine years. He had previously worked at the State Health Department for a decade, first as the Chief of Staff and later as an Assistant Commissioner overseeing the HIV/AIDS Bureau.

Peter Brown – Emcee

Chief of Staff, Office of CEO, Partners HealthCare

Peter Brown is Chief of Staff to the President and CEO of Partners HealthCare. Brown works directly with the CEO and senior leadership to support and advance Partners' mission and the message. Prior to his current position, Brown was Vice-President of Public Affairs and Communication for Brigham and Women's Hospital.

Brown spent more than 25 years in television journalism. He started his career in radio news in 1977 and transitioned to television in 1978. After graduating from the University of Rhode Island in 1979, Brown worked as a broadcast producer at television stations in Providence (WJAR-TV), Philadelphia (WPVI-TV) and Boston (WBZ-TV), where he was News Director from 1993-2004, leading a staff of more than 125 journalists. Brown was honored with numerous awards from the Associated Press. He received an Emmy Award; a Best of Boston Award as Best News Director from *Boston Magazine*; and in 2000, he and his WBZ-TV news team received the Edward R. Murrow Award for best local news station in America.

Brown serves on the Board of the Massachusetts Hugh O'Brien Leadership Conference; is a member of the Boston Athletic Association; and has served as Chairman of the Board at the Family Justice Center of Boston. He also served on the External Affairs Committee for the Forsyth Institute in Boston.

Brown has worked with local and international government agencies and groups, sharing his expertise on dealing with the media around emergency events and offering guidance on how best to deliver communication during a crisis. As examples, he was involved in Operations "Atlas" and "Poseidon" through the City of Boston Department of Homeland Security and the City of Cambridge, MA.



Voices of Experience: Leadership During a Disaster

Speaker Biographies

John L. Hick, MD

*Medical Director, Emergency Preparedness Hennepin County Medical Center
Associate EMS Medical Director, Hennepin County Medical Center*

John L. Hick is a faculty emergency physician at Hennepin County Medical Center (HCMC) and an Associate Professor of Emergency Medicine at the University of Minnesota Medical School. He serves as the Associate Medical Director for Hennepin County Emergency Medical Services and Medical Director for Emergency Preparedness at HCMC. He is Medical Advisor to the Minneapolis/St. Paul Metropolitan Medical Response System. He also serves the Minnesota Department of Health as the Medical Director for the Office of Emergency Preparedness and Medical Director for Hospital Bioterrorism Preparedness. He is the founder and past chair of the Minneapolis/St. Paul Metropolitan Hospital Compact, a 29 hospital mutual aid and planning group active since 2002. This regional program was recognized with a \$2.5 million competitive HHS preparedness grant in 2007. Hick traveled to Greece to assist with healthcare system preparations for the 2004 Summer Olympics as part of a 15 member CDC/HHS team. He continues to work with Health and Human Services and other agencies on issues of hospital surge capacity planning, adjusted standards of care in disasters, and preparedness for nuclear terrorism.

Hick is a national speaker on hospital preparedness and crisis standard of care issues and has published numerous papers dealing with hospital preparedness for contaminated casualties, disaster standards of care, and surge capacity. In his spare time, he practices disaster mitigation, response, and recovery at home with his two daughters, ages 6 and 9.

M. Scott Hill, MEd, MHA, FACHE

Chief Executive Officer, LewisGale Hospital Montgomery

M. Scott Hill was named Chief Executive Officer of Montgomery Regional Hospital on June 5, 2006. Prior to being named CEO for MRH, Mr. Hill served as CEO for Northern Virginia Community Hospital and Dominion Hospital, a position he began in July of 2005. From 2003-2005, he was Chief Operating Officer, Ethics and Compliance Officer and Chief Staffing Officer for both of these hospitals. From 2001-2003, he was an Associate Administrator for Henrico Doctors' Hospital in Richmond, Virginia. Prior to its acquisition by HCA, from 1998-2001, he served as Regional Operations Coordinator and then as Assistant Administrator for Healthsouth Medical Center in Richmond. Hill began his career in healthcare serving as Head Exercise Physiologist in the Cardiac Rehabilitation program at St. Francis Hospital in Columbus, Ga. He received a Bachelor of Science Degree in Health Promotion (1993) and a Masters of Education in Exercise Physiology (1995) from Auburn University. He earned his Masters of Health Administration from The Medical College of Virginia in 2000. Hill is a member of the American College of Healthcare Executives, Rotary International, and was in the 2006 Class of LEAD Virginia. He serves on the boards of directors for the Montgomery County Chamber of Commerce (Treasurer) and The Blacksburg Partnership and is a Community Advisory Board Member for the National Bank of Blacksburg.

Speaker Biographies

Jane Metzger, RN, PhD

Senior Vice President CNO, Saint Vincent Hospital

Jane Metzger currently serves as the CNO at Saint Vincent Hospital in Worcester. Metzger previously worked for Caritas Christi Healthcare System as vice president of clinical operations for emergency services. Before that, she was a senior vice president and CNO at Rhode Island Hospital/Lifespan Healthcare Systems.

Metzger has a bachelor's degree in nursing from Saint Anselm College in Manchester, NH, a master's in nursing from Northern Illinois University and a PhD in philosophy and nursing from Widener University in Pennsylvania.

Metzger was recognized in local and national media following the Station Nightclub fire. In a night of horror and heroism, she and her staff attended to the victims of the fourth deadliest nightclub fire in American history. In a "Tribute to Nurses," *The New York Times* acknowledged her work with its Job Market Nursing Award, presented to only four nurses nationwide.

David Whitmore

Senior Clinical Advisor to the Medical Director, London Ambulance Service Trust

David Whitmore is currently the Senior Clinical Advisor for the Medical Director, London Ambulance Service NHS Trust. He also worked as Head of Education and Development for the West Country Ambulance Services NHS Trust from 2000 to 2002.

Whitmore joined the London Ambulance Service (LAS) in 1980 and became "Extended Trained" (forerunner to "paramedic") in 1986. He has wide-ranging operational experience, which sadly covers many terrorist incidents, rail disasters, major fires and civil disturbances. This experience has been tempered by significant developments in the ambulance profession and having had the privilege of being a part of some of those developments.

In January 2000, Whitmore was nominated by the Ambulance Service Association as a member the first Paramedic Board for the Council for Professions Supplementary to Medicine (CPSM). He also fulfilled the post of Chairman of the Registration Committee of the Paramedic Board. When the CPSM was replaced by the Health Professions Council (HPC) in 2002, he carried on as an HPC Partner in the roles of Visitor, Registrant Assessor and Investigating Panel. Whitmore was also appointed by the Privy Council as Alternate Member of Council for the HPC for 2004/5. Currently, he is an HPC Partner fulfilling the duties of Registrant Assessor, Visitor and Fitness to Practice. As a member of the British Paramedic Association (BPA), he chaired the group that produced the BPA's first Curriculum Framework for the Ambulance Profession from initial recruitment right through to paramedic consultant.

Whitmore is a Faculty Board Member of the Faculty of Pre-Hospital Care, Royal College of Surgeons Edinburgh. He is an Examiner for Diploma in Immediate Medical Care offered by the Royal College of Surgeons of Edinburgh. Whitmore is a member of the Department of Health, Care Pathways Working Group for the End of Life Care Programme.



Voices of Experience: Leadership During a Disaster

Conference Attendees

Susan Abril, Cardiac Cath Lab Director,
Falmouth Hospital

Robert Adkinson, Director of Safety/
Security, Milton Hospital

Caitlin Ahern, Hazmat Coordinator,
Cambridge Health Alliance

Jann Ahern, Executive Director VNA,
South Shore Hospital

Steven Ahern, Deputy Superintendent,
Cambridge Police Department

Simon Ahtaridis, Physician, Cambridge
Health Alliance

Jack Albert, Deputy Superintendent,
Cambridge Police Department

Scott Alegria, Facilities/Cental
Services Manager, Harvard University
Health Services

Paul Ames, Deputy Superintendent,
Cambridge Police Department

Laurie Andersen, Charge Nurse,
Emergency Department, Newton
Wellesley Hospital

Peter Angelos, Site Director,
Department of Mental Health

Heidi Aplert, Director, BID-N

Scott Armstrong, Director of Business
Operations, Armstrong

Scott Aronson, Principal, Russell Phillips

Neal Aspesi, Director of Operations
for Emergency Management, City of
Southborough

Bruce Auerbach, Vice President
Emergency Services, SMH

Frank Barbarian, Director of
Housekeeping Services, Cambridge
Health Alliance

Carol Bardwell, Chief Nurse Executive,
Martha's Vinyard Hospital

Steven Baroletti, Associate COO, MWMC

Joseph Barrett, Nurse, Manager, BID-N

Judy Barrett, Risk Manager, Metro

Jim Bartley, Emergency Management,
Dispatch, Natick PD

Brenda Bassard, Director Human
Resources, SIGNATURE HEALTHCARE

Paula Bates, Resources Coordinator,
SMH

Allison Bayer, COO/EVP, Cambridge
Health Alliance

Paula Beaulieu, Director of Emergency
Department, South Shore Hospital

Cathy Beaupre, Case Management
Director, SIGNATURE HEALTHCARE

Jeffrey Bechen, Director Patient
Access, Norwood Hospital

David Becker, Administrator, Kindred
Healthcare Natick

Michael Belmont, Director of Public
Safety, Cambridge Health Alliance

John Benati, Chief MD Emergency
Department, South Shore Hospital

Dottie Bernard, Planner, CEMA

Judy Bernice, E.P. Coordinator, MDPH
4ab Region Hospital

Janice Berns, Director, Public Health,
Needham Public Health

Carol Ann Bernstein, Employee Health,
Norwood Hospital

Doris Bertram-Morin, Dir Professional
Practice Education & Reserarch,
Norwood Hospital

Pooja Bhalla, Associate Director of
Operations, Boston Healthcare for the
Homeless Program

Gail Bienvenue-Mailhott, Regional
Hospital Coordinator, Massachusetts
Department of Public Health

Angela Bivens, Infection Control
Manager, Morton Hospital & Medical
Center

Jeff Black, Electric Lead, Good
Samaritan Medical Center

Michael Blanchard, Director, Board of
Health, Town of Milton

Lisa Blanchette, Director of Patient
Access, Saint Anne's Hospital

Terri Bomal, Nursing Supervisor,
Winchester Hospital

Chris Borges, Director of Operations,
Cataldo Ambulance Service

Steve Borges, Assistant Vice
President of Operations, SIGNATURE
HEALTHCARE

Robert Bornstein, Director of Facilities
& Engineering, Emerson Hospital

Jeff Bossart Security Officer, Quincy
Medical Center

Susan Boulanger, Director Imaging,
SIGNATURE HEALTHCARE

Jennifer Boyd, Manager of Human
Resources, Emerson Hospital

Susan Breen, Nurse Manager,
Cambridge Public Health Department

Sean Brennan, Facilities Manager,
Good Samaritan Medical Center

Mark Briggs, Operations Chief,
Gillette Stadium

Robert Bright, Facilities Operations
Manager, MIT Medical

Virginia Brodeur, Clinical Coordinator,
Falmouth Hospital

Paul Brown, Executive Director, Norcap

Diane Brown-Couture, Southeast
Emergency Preparedness Coordinator,
MDPH

Edward Browne, Exec. Director
of Facilities and Support Services,
Cape Cod Hospital

Proia Bruce, Fire Chief, Newton
Fire Department

LouAnn Bruno Murtha, Chief of
Infectious Desease, Cambridge
Health Alliance

Gretchen Buchmann, Nursing
MedSurg, Nantucket Cottage Hospital

Lynn Budlong, Vice President of
Ambulatory Services, Cambridge
Health Alliance

Jane Buley, Occupational Health
Manager, Cambridge Health Alliance

Linda Burgoon, Associate COO,
MetroWest Natick

Marie Burnham, Director of
Engineering, Mt. Auburn

Scott Bushway, Homeland Security
Grant Manager, SRPEDD

Jim Butterick, Chief Medical Officer,
Cape Cod Hospital

Elizabeth Cadigan, CNO, Cambridge
Health Alliance

Joe Cahill, Executive VP Chief
Operating Officer, South Shore Hospital

Linda Campbell, Director of Quality,
MWMC

Bruce Capman, Executive Health
Officer, Hingham Health Dept

Chales Caputo, Police Sergeant,
Town of Milton

Donna Carmichael, Public Health
Nurse, Needham Public Health

Peter Carnes, Public Saftey,
Community Partner

Charlene Chadwick, Infection Control/
EPP Team, Nantucket Cottage Hospital

Leslie Chamberlin, Board of Health RN,
Southborough LEPC

Arlene Champey, Safety Officer /
Emergency Management Coordinator,
Steward Holy Family Hospital

Ronald Charron, Chief, Seekonk Police
Department

Donald Chase, Lt., Hyannis Fire
Department

Doreen Chauvin, Director of Surgical
Services, Saint Anne's Hospital

Mary Christian, Nurse Manager,
SIGNATURE HEALTHCARE

Danielle Cleaves, Security Supervisor,
EM Assistant, Quincy Medical Center

Maryjane Cleaves-Cain, Environmental
Supervisor, Quincy Medical Center

Matthew Cobb, Director of ESD, Saint
Anne's Hospital

Roberta Collins, Sr. Director of Nursing,
Cambridge Health Alliance

Karen Conley, VP of Nursing, Quincy
Medical Center

Alden Cook, Cape Cod EMS, Cape and
Islands EMS

Joan Cooper-Zack, Emergency
Preparedness Manager, South Shore
Hospital

Pam Cormier, Nurse Manager
Emergency Department, Newton
Wellesley Hospital

Craig Cornwall, Medical Director,
Emergency Services, Cape Cod
Hospital

John Cosmo, Lt. Hyannis Fire
Department, Hyannis Fire Department

Mary Jane Costa, V.P. Nursing,
Nantucket Cottage Hospital

Tobias Cowans, Director, Emergency
Management for Schools, Brockton
Public Schools

Harold Cox, Professor of Social and
Behavioral Sciences, Boston University
School of Public Health

Anita Crawford, CEO, Roxbury
Comprehensive Community Health
Center

Lynn Cronin, Director, Nursing Clinical
Operations, Milton Hospital

John Crowley, Director of Facilities,
Norwood Hospital

Conference Attendees

Kathy Crowley, Public Health Nurse,
Hingham Health Dept

Robin Cunningham, Clinical Educator
Emergency Department, Newton
Wellesley Hospital

Ted Curcio, MD, MAH

Don Cusson, City of Marlborough
Emergency Management Director, City
of Marlborough

Mary Czymbor, Vice President of
Medical Affairs, Norwood Hospital

Melinda Dalton, Emergency
Department, Newton Wellesley Hospital

Kathy Davidson, Chief Nursing Officer,
Norwood Hospital

Rob Davis, MD, Falmouth Hospital

Ciavola Deb, ED Nursing Director,
Jordan Hospital

Joe Dehenick, EMS Supervisor,
Falmouth Fire Dept

Steven DeMarco, Deputy
Superintendent, Cambridge Police
Department

David Dennenno, Emergency
Preparedness Coordinator, SMH

Shirley Devore, Case Manager,
Department of Mental Health

Al Dhanji, Physician/Emergency
Preparedness Task Force, Boston
Health Care for the Homeless

David Diamond, Emergency Manager,
MIT

Nick Dileso, Chief Operating Officer,
Mount Auburn Hospital

Carol DiMeo, Sr. Director of Labratory
Services, Cambridge Health Alliance

David DiNapoli, Environmental Safety
Officer, Cambridge Health Alliance

Mary Ditommasso, Newton Wellesley
Hospital

Del Dixon, VP of Information Systems,
South Shore Hospital

Tina, Dixon, CMED Supervisor,
Worcester C-Med

Donna Doherty, VP Patient Services/
CNO, Jordan Hospital

Ron Doncaster, Charge Nurse,
Emergency Department, Newton
Wellesley Hospital

Elizabeth Donnenwirth, Accreditation
Specialist, Winchester Hospital

Alison Douglas Walker, Charge Nurse,
Emergency Department, Newton Police
Department

Hugh Downing, Emergency
Management Director, Newton
Police Department

Diane Downs-Watts, Director of
Volunteer Services, South Shore
Hospital

Jim Doyle, Director of Security and
Public Safety, South Shore Hospital

Eugene Duffy, Manager Paramedic and
EMS, South Shore Hospital

Barry Dulong, Director of Facilities,
Saint Anne's Hospital

Kevin Dumas, Mayor, City of Attleboro

Edward Dunne, Captain, Falmouth
Police Department

Melinda Dunne, Clinical, Falmouth
Hospital

Kerry Dunnell, Senior Program
Manager, Boston University School of
Public Health

Mark Dutra, Director of Safety/Security
& EM, Quincy Medical Center

Kevin Dyer, Environmental Director, SMH

Janice Ellsworth, Risk Management,
Nantucket Cottage Hospital

Terrie Enis, Dir of Center for Sports
Rehab & Specialty Services, Emerson
Hospital

Lynn Erickson, Program Coordinator,
Commonwealth of Mass. Dept. of
Mental Health

Kerry Evans, Emergency Preparedness
Bureau, Massachusetts Department of
Public Health

Kathy Farrington, Public Saftey,
Community Partner

Susan Feinberg, Public Health,
Cambridge Public Health Department

Meg Femino, Director Emergency
Management, BIDMC\ BID-N

Barbara Fenby, Director of Community
Services, Commonwealth of Mass.
Department of Mental Health

Jean Fernandez, Cheif Information
Officer, Milton Hospital

Rick Ferreira, Director of Taunton
Emergency Management, Taunton
Emergency Management Agency

Michael Flannagan, Director Security
and Emergency Preparedness,
Norwood Hospital

John Fleming, Captain, Milton
Auxiliary Fire

William Flemming, Senior Vice
President of Operations, Norwood
Hospital

Mary Ellen Fletcher, Supervisor, AMR

John Flick, Director of Operations,
Lynn Community Health Center

Craig Forcina, Director of Security, SMH

Mike Forth, Facilities/EPP Team,
Nantucket Cottage Hospital

Danielle Foster, EMT, Foster Inc

Teresa Foster, EMT, Foster Inc

Karen Foulkrod, Occupational Health,
BID-N

Frederick Fowler, Executive Director,
Southeastern Massachusetts EMS
Council

Susan Fox, Nursing Supervisor,
Newton Wellesley Hospital

Maria Francesconi, Chief of Nursing,
Harvard University Health Services

Alan Freedman, Case Manager, DMH

Steve Friot, Director of Facilities,
SIGNATURE HEALTHCARE

Catherine Froio, Manager Patient
Access, Norwood Hospital

Lesley Fucci, Senior Director of Quality
and Patient Safety, Emerson Hospital

Teresa Fuller, Quality and Safety,
Norwood Hospital

Maria Gabriel, Supervisor Occuapational
Health, Milton Hospital

Kevin Gage, Security/Saftey Manager,
MetroWest Framingham

Bob Gagnon, Manager
Telecommunications, SIGNATURE
HEALTHCARE

John Gale, Director Imaging Services,
Norwood Hospital

Andrea Gaulzetti, Director of
Clinical and Nursing Services, Lynn
Community Health Center

Dave Gavigan, Homeland Security,
Bristol County Sheriff's Office

Donald Gazero, Fire Traning Officer,
Brockton Fire Department

Doris Gentley, Acting Site
Administrator/Dir Radiology,
Cambridge Health Alliance

Jean Giagrande, Director of Clinical
Operations, Manet Community Health
Center, Inc

Mike Ginieres, Environmental Health
Officer, Cambridge Public Health Dept

Sharon Giordani, Director of
Emergency Department, Quincy
Medical Center

Rick Gomes, Chief, Norton Fire
Department

Jouel Gomez, Supervisor,
Telecommunications Department,
Newton Wellesley Hospital

Michael Gottlieb, Chief Medical Officer,
MetroWest Framingham

Kim Grabau, Director, SIGNATURE
HEALTHCARE

Jack Grant, Fire Chief, Town of Milton

Herb Gray, MD, Falmouth Hospital

Maria Gray, Vice President Quality and
Safety, Steward Healthcare

Penny Greenberg, Director Health Care
Quality, BID-N

John Grieb, Health Systems
Preparedness Planner, Massachusetts
Department of Public Health

Lois Griffin, ER Nurse, Falmouth Hospital

Kathy Grisley, Risk Manager,
Winchester Hospital

John Guidara, Executive Director,
Metropolitan Boston EMS Council, Inc

Stephanie Guidetti, V.P. Marketing,
MWMC

Ellen Hafer, Executive Vice President &
COO, Mass League

Margaret Hanson, President, Norwood
Hospital

Kathleen Harrington, Vice President
Human Resources, Milton Hospital

Christine Harris, Nurse Manager
Pediatrics and Pediatric Ambulatory,
Newton Wellesley Hospital

Susan Hathaway, Director, Pharmacy,
BID-N

Kyle Heagney, Police Chief, Attleboro
Police Department

Michelle Heatley, Director of Emergency
& Walk-In Services, Mt. Auburn



Voices of Experience: Leadership During a Disaster

Conference Attendees

John Hebb, Bristol County Sheriff's Office, Homeland Security

Ashleigh Hegedus, Ed Physician, Assoc Harvard Med Faculty BIDMC Milton Hospital

Edward Hennegan, EMS/Hospital Preparedness Planner, Massachusetts Department of Public Health, Emergency Preparedness Bureau

Richard Herman, Medical Director, Emergency Dept, Good Samaritan Medical Center

Tim Heuer, Supervisor, Medstar Ambulance Service

Joseph Hicks, Captain, Framingham Fire Department

Barry Hilts, Vice President of Support Services, Cambridge Health Alliance

Nhut Ho, Construction Planner/Manager, Newton Wellesley Hospital

James Hubbard, Business Manager PerioP Services, South Coast Hospitals Group

Richard Huffam, Outpatient Nurse Manager, Martha's Vinyard Hospital

Carter Hunt, V.P. Clinical Services, South Coast Hospitals Group

Claude-Alix Jacob, Chief Public Health Officer, Cambridge Health Alliance

Nellie Jacob, Emergency Room Nurse Manager, Morton Hospital & Medical Center

Jill Johnson, Nursing OR Manager, Nantucket Cottage Hospital

Mary Johnson, RN Manager Emergency Department, Cape Cod Hospital

Scott Johnson, Facilities Director, MetroWest Natick

Tim Jones, COO, MetroWest Natick

Kevin Jordan, Steam Lead, Good Samaritan Medical Center

Patrick Jordan, Chief Operating Officer, Newton Wellesley Hospital

Archana Joshi, Emergency Preparedness Coordinator, Massachusetts Department of Public Health

Jason Kahn, Emergency Room Physician, Cape Cod Hospital

Michael Kass, Chief of Staff, Massachusetts Emergency Management Agency

Kathy Kay, Director Surgical Services, Norwood Hospital

David Kearns, Director, Human Resources & Central Operations, Harvard University

Dennis Keefe, CEO, Cambridge Health Alliance

Kevin Kelleher, Chief of Department, Somerville Fire Department

Michael Kelleher, Emergency Management Coordinator, MetroWest Medical Center

Kevin Kelley, Resource Coordinator Emergency Prep, South Shore Hospital

Kim Kelley, Nursing Director, MetroWest Framingham

Brian Kelly, Associate Chief Emergency Care Center, SMH

Edward Kelly, Emergency Management Director, City of Melrose

Patricia Kennedy, Nursing Supervisor, Newton Wellesley Hospital

Scott Kenyon, Director Facility Operations & Safety Officer, Good Samaritan Medical Center

Scott Killough, Lt., Attleboro Police Department

Stacey King, Health Promotion & Marketing Manager, Cambridge Public Health Department

Christine Kluczmik, Associate Chief Nursing Officer, Cambridge Health Alliance

Karen Kmetz, Nurse Manager ICU, Newton Wellesley Hospital

Alan Kuong, Ed Physician, Emerson Hospital

Rachel Labas, Marketing & PR Coordinator, Signature Healthcare Brockton Hospital

Scott LaChance, Fire Department Chief, Attleboro Fire Department

Michelle Ladonne, Director, Clinical Process Improvement, Signature Healthcare

Nancy Lafianza, Health Information Management, Newton Wellesley Hospital

Martha Lake-Greenfield, ED Nurse Manager/EPP Coordinator, Nantucket Cottage Hospital

Stacey Lane, Assistant Director, Norwood Health Department

Anne Lang, VP Human Resources & Legal Services, Winchester Hospital

Christian Lanphere, Emergency Manager, Cambridge Health Alliance

Chris Laporte, Field Supervisor, Fallon Ambulance

Ken Lawson, Chief Emergency Medicine, SIGNATURE HEALTHCARE

Mary Leary, Program & Policy Analyst, Mass League

Teresa Leary, Manager of Infection Control, SIGNATURE HEALTHCARE

Chris LeBlanc, Director of Plant Operations, Morton Hospital & Medical Center

Karmen Lee, Managed Care Assistant Director And Ep Chair, Manet Community Health Center

Ellen Leiter, Director of Critical Care & ED, Newton Wellesley Hospital

Michael Lentini, Deputy Fire Chief, Natick Fire Department

Margaret Leoni, Vice President of Regulatory Affairs, Massachusetts Senior Care Association

Tom Leslie, Director of Traffic & Parking, Cambridge Health Alliance

Robert Lewis, Sr. Director of Telecom Services, Cambridge Health Alliance

Rose Lewis, Director, Marketing, BID-N

Brian Linehan, Deputy Fire Chief, Town of Milton

Sam Lipson, Environmental Health, Cambridge Health Alliance

Luis Lobon, Emergency Department Cite Chief, Cambridge Health Alliance

John Looney, Dir Public Relations & Corporate Communication, Winchester Hospital

Patricia Lovallo, Administrative Manager, Norwood Hospital

Karen Mackenzie, Nurse Manager, Winchester Hospital

Kate Mackinnon, Nurse Manager, ED SIGNATURE HEALTHCARE

Paul Mackinnon, Vice President of Emergency Services, Steward Healthcare

Gerard Mahoney, Deputy Chief, Cambridge Fire Department

Nancy Mahoney, RN Infection Control, Jordan Hospital

Mary Jo Majors, Director of Clinical Operations, EP Coordinator, South Cove Community Health Center

Noreen Manning, Chief Operations Officer/EP Coordinator, North End Community Health Center

Susan Manning, Microbiology Manager, Newton Wellesley Hospital

James Mannion, SE Massachusetts Manager, Massachusetts Emergency Management Agency

Leigh Mansberger, 4B Emergency Preparedness Manager, Cambridge Public Health Department

Chris Mantia, Senior Technician, Norwood Hospital

Mary-Elise Manuell, Director, Division of Disaster Medicine, UMass Memorial Medical Center

Ann Martello, Risk Management, BID-N

Denise Martin, Environmental Supervisor, Quincy Medical Center

S. Atyia Martin, Director, DelValle Institute for Emergency Preparedness

Todd Martin, Security/Telecom Manager, Morton Hospital & Medical Center

Joan Martinelli, Corporate Risk Management, Cape Cod Healthcare

Jim Mayall, Public Safety, Community Partner

Steven Mazzie, Chief of Department, Everett Police Department

Eileen McAdams, NP, MGH

Erin McCann, Emergency Department Physician, Norwood Hospital

James McCarthy, Director of Emergency Services, Marlborough Hospital

Fiona McCaughan, Nurse Manager, Hematology & Oncology Services, Winchester Hospital

Mary McClintock, Director Case Management, Norwood Hospital

Lisa McCluskie, Director of Planning and Marketing, SMH

Kerry McCollem, Director Critical Care, Good Samaritan Medical Center

Albert McCreery, Director of Materials, SMH

Pamela McCue, Lab Operations Manager, Newton Wellesley Hospital

Conference Attendees

Buddy McDermott, DPW, Town of Milton
Timothy McDonald, Massachusetts
Department of Public Health, Hospital
Preparedness Program Manager

Bill McFarland, Director of Materials
Management, Cambridge Health
Alliance

Dan McGillicuddy, Public Safety,
Community Partner

Jeannette McGillicuddy, Manager,
Environmental Safety, SIGNATURE
HEALTHCARE

Linda McGowen, Nurse Manager,
Winchester Hospital

Lorraine McGrath, Director, Marketing,
SIGNATURE HEALTHCARE

Susan McHenry, Manager of Infection
Prevention, Emerson Hospital

Chris McKay, ED Resource Nurse, BID-N

Dan McKenna, IT, Jordan Hospital

Anne-Marie McKinley, Director of
Acute Care, MetroWest Natick

Brenda McKonly, Director of Operative
Services, Cambridge Health Alliance

Jeannette McWilliams, Admin Director,
MGH Chelsea Healthcare Center

Dorcie McWeeny, Director, HCQ, BID-N

Stephen Medeiros, Manager Security,
Good Samaritan Medical Center

Bryan Meehan, Administrative
Assistant, Winchester Hospital

Dean Melanson, Deputy Fire Chief,
Hyannis Fire Department

Kim Melloni, ED Medical Director,
Jordan Hospital

Judy Menard, Infection Prevention
Manager, Milton Hospital

Bill Mergendahl, CEO, Professional
Ambulance

Kathy Merrigan, Nurse Manager of
Emergency Department, Norwood
Hospital

Maureen Metters, Director of NSA
Emergency & Ambulance Services,
SMH

Garth Meyerhoff, Director of
Engineering, Falmouth Hospital

Jean Meyers, Manager of Pulmonary
Services, Saint Anne's Hospital

Mary Milgrom, Sr. Director of Nursing,
Cambridge Health Alliance

Capt Mills, Captain, Woburn Fire
Department

Alison Minkoff, Assistant Emergency
Preparedness Coordinator, Cambridge
Public Health Department

Ronald Minter, Chief of Anesthesia,
Cambridge Health Alliance

Cynthia Mitchell, Executive Director,
Island Health Inc.

Ellen Moloney, Sr. Vice President,
Newton Wellesley Hospital

Gerard Monahan, Plumbing Lead,
Good Samaritan Medical Center

Jonathan Moorcroft, Supervisor,
Medstar Ambulance Service

Joseph Morrissey, President, Milton
Hospital

Dottie Mucciogrosso, Director Patient
Access, SIGNATURE HEALTHCARE

Karen Mueller, Nurse Manager
Maternity, Newton Wellesley Hospital

Jay Mulcahy, Security/ EP Officer,
Morton Hospital & Medical Center

Tom Mulvaney, Senior Advisor for
Medical Affairs, Winchester Hospital

Bill Murdock, Supervisor, Medstar
Ambulance Service

Deborah Murphy, Site Administrator,
Cambridge Health Alliance

Jen Murphy, Director, Winchester
Board of Health

Mary Murray, Director of Patient
Access, Newton Wellesley Hospital

Oliver Murray, Environmental Services/
EPP Team, Nantucket Cottage Hospital

Lynne Musto, Site Director Department
of Mental Health

Susan Natale, Ambulatory Nursing
Educator, Cambridge Health Alliance

Neal Nicholaides, HVAC Lead, Good
Samaritan Medical Center

Gus Niewenhaus, Emergency
Management Director, Town of
Stoneham

Steve Nikolsky, Supervisor of Case
Management, South Shore Hospital

Renia Noel, Emergency Department
Manager, Cambridge Health Alliance

Jill Norato, Emergency Department
Clinical Leader, Cape Cod Healthcare

Sean O'Brien, Barnstable County EPC,
BCREPC

Donna O'Brien, Nurse Manager,
Winchester Hospital

Yu-Chi O'Rourke, Pharmacy Director,
Winchester Hospital

Kerin O'Toole, Public Affairs Director,
Mass League

Ernest Ofoedu, Director of HIM, Saint
Anne's Hospital

Dana Ohannessian, Emergency
Preparedness Bureau, MDPH
Emergency Preparedness Bureau

Alice Ohmeri, Supervisor, Medstar
Ambulance Service

Mark Oram, Health Agent, Ashland
Health Department

Karin Orr, NE Suburban Area Forensic
Director, Mass Dept of Mental Health

David Osler, Medical Director,
Cambridge Health Alliance

Donald Ouellette, Materials Manager,
Kindred Healthcare Natick

Sue Pacheco, Nurse Manager, BID-N

Cindy Page, Vice President, Clinical/
Support Services, Milton Hospital

John Palmgren, Emergency
Department, RN, Marlborough Hospital

Brian Patel, Emergency Dept MD, SMH

Kelly Pawluczonek, Sanitarian,
Framingham Public Health

Seth Peters, Region 2 Healthcare
Preparedness Coordinator, City of
Worcester Department of Public Health

Denise Peterson, Sr Dir of Risk
Management, Cambridge Health
Alliance

Dimitry Petion, COO, Harvard Street
Health Center

Debra Petipas, Administrative
Manager, Norwood Hospital

Patricia Pettis, Field Officer, U.S. Dept
of Health and Human Services

Rebecca Phillips, Associate Director,
Boston Emergency Medical Services

Julie Piecewicz, Vice President
Operations SMG, SIGNATURE
HEALTHCARE

Kristin Pitocco, Environmental Safety
Officer, Mt. Auburn

David Polanik, Director of Risk
Management, Marlborough Hospital

Miguel Ponte, Environmental Services
Supervisor, Emerson Hospital

Heidi Porter, Director, Everett Health
Department

Jekatrerina Porter, Manager of Safety
and Security, Emerson Hospital

Christine Pouliot, Director of Surgical
Services, SMH

Luis Prado, Department Director, City
of Chelsea

H. Ray Price, Director, Safety/Security
and Emergency Management, South
Coast Hospitals Group

Joseph Prondak, Building
Commissioner, Town of Milton

Donn Pushor, Director of Facility &
Support Services, Marlborough Hospital

Ron Quaranto, COO, Cataldo
Ambulance Service

Timothy Quigley, VP of Nursing, Chief
Nursing Officer, South Shore Hospital

John Quinn, Director of Supply Chain
Management, Emerson Hospital

Judith Quinn, VP Patient Care, Cape
Cod Hospital

Mark Racicot, Director of Support
Services, MetroWest Framingham

Jason Radzevich, Police Sergeant,
LEPC Coordinator, Town of Milton

Sharon Ravid, Program Coordinator,
Boston University School of Public
Health

Rich Raymond, Director of Strategic
Planning, Armstrong

Gerald Reardon, Chief of Department,
Cambridge Fire Department

Sigalle Reiss, Director, Norwood Health
Department

Paulette Renault Caragianes, Director,
Somerville Health Department

Frank Riccio, Manager Emergency
Management, Cape Cod Hospital

Deborah Rideout, Director Patient
Care, South Coast Hospitals Group

Tom Rines, Director of Safety,
Lahey Clinic

Josh Roberts, Environmental Services
Director, Winchester Hospital



Voices of Experience: Leadership During a Disaster

Conference Attendees

Robby Robertson, VP Facilities & Real Estate, Safety Officer, Winchester Hospital

Debra Robinson, Executive Director of Patient Care, Cape Cod Hospital

Lisa Rocker, Emergency Dept Nurse Manager, Cambridge Health Alliance

John Rogers, Captain, Plymouth PD

Mike Rogers, IS Manager, Falmouth Hospital

Donna Romano, Emergency Department, RN, Marlborough Hospital

Brad Ross, Director of Security & Training, Winchester Hospital

Robert Rossi, Deputy Fire Chief, Cambridge Fire Department

Charlotte Roy, Emergency Preparedness Coordinator, Newton Wellesley Hospital

Christopher Russell, ED Doctor, Jordan Hospital

Chris Sands, Administrative Clinical Coordinator, South Shore Hospital

Maryann Santisi, Dir Environmental Services & Patient Transport, Norwood Hospital

Assaad Sayah, Chief of Emergency Medicine, Cambridge Health Alliance

Jeff Scafidi, Business Operations Manager, Armstrong

Erich Schickle, Facilities Manager, MetroWest Framingham

Lynn Schoeff, Senior Director of Emergency Prep, Cambridge Health Alliance

John Schultz, Director of Facilities, New England Rehabilitation Hospital

Alan Semine, President of Medical Staff, Newton Wellesley Hospital

Linda Shea, Health Director, Westwood Board of Health

Lisa Shea, Director of the ED, Saint Anne's Hospital

Steven Shea, Safety Coordinator, Winchester Hospital

Patrick Shidler, Director of Environmental Services, Emerson Hospital

Doris Sinkevich, Vice President, Patient Care and Quality/ CNO, Milton Hospital

Wendy Slabodnick, Director of Wound Care Center, Emerson Hospital

David Small, Pharmacist/EPP Team, Nantucket Cottage Hospital

Bill Smith, Director, Plant Operations & Telecommunications, Winchester Hospital

David Smith, Shift Commander, American Medical Response

Edward Smith, Manager Security/Safety, Cape Cod Hospital

Jeff Smith, Sgt, Falmouth Hospital

Lillian Smolinsky, Administrative Manager, Norwood Hospital

Holly Sousa, Nurse Manager - Peri-op, BID-N

Julianne Souza, Clinical Educator, Saint Anne's Hospital

Nikki Staples, Clinical Coordinator, MetroWest Natick

Jane Stiles, EMS Coordinator, Jordan Hospital

Lisa Stone, Principal Technical Advisor, Management Sciences for Health

Phil Stoner, EP Coordinator, MDPH Region 3 Hospital

David Strong, Manager Clinical Engineering, Holy Family Hospital

Mark Sullivan, Acting Chief, Falmouth Fire Dept

William Sullivan, Director of Facilities and Engineering, Newton Wellesley Hospital

Suzanne Swedeen, Administrative Manager, Steward Healthcare

Craig Sylvester, Assistant Chief Emergency Medicine, SIGNATURE HEALTHCARE

Les Sylvester, Electric Lead, Good Samaritan Medical Center

Candra Szymanski, Chief Operating Officer, Marlborough Hospital

Lisa Tager, Risk Manager, Cape Cod Hospital

Jim Tamash, Director of Security, Falmouth Hospital

Mark Tartton, Facilities Director, Jordan Hospital

Fanny Tchorz, Director of Interpreter Services, Saint Anne's Hospital

Roberta Teixeira, Director, Clinical Laboratory Program, MDPH, Bureau of Health Care Quality

Matthew Termini, Manager of Security, Cambridge Health Alliance

Nina Thayer, Inpatient Nurse Manager, Martha's Vinyard Hospital

Henry Thein, Case Manager, Dept. of Mental Health

Joanne Thomas, Nursing Director, SIGNATURE HEALTHCARE

Paul Tortolando, Chief, Woburn Fire Department

John Tose, Deputy Chief, Weymouth Fire Department

Jason Tracy, Emergency, Cambridge Health Alliance

Steven Travassos, Director, Laboratory, SIGNATURE HEALTHCARE

Bruce Trefry, Manager EMS, Emerson Hospital

Jill Trelease, RN, Saint Anne's Hospital

Diane Trowbridge, Chief Clinical Services, Lowell Community Health Center

Colleen Turpin, Region 2 Partnership Grant Coordinator, Worcester Department of Public Health

Lynn Vickery, Home Care Manager, Morton Hospital & Medical Center

Gloria Vignone, Quality Improvement, SMH

Karen Viscariello, Nurse Manager, Emerson Hospital

Maureen Viveiros, Manager of Patient Access, Saint Anne's Hospital

Aaron Wallace, Emergency Management Director, Town of Plymouth

Sheila Wallace, Director of Security Safety & EM, Saint Anne's Hospital/ Good Samaritan

Mary Wallan, Director of Communications and Marketing, Norwood Hospital

David Walsh, Director of Facilities, Material, South Shore Hospital

Linda Walsh, Director, Newton Health and Human Services

Setti Warren, Mayor, City of Newton

Joyce Welsh, Interim VP Patient Care Services & CNO, Emerson Hospital

Janice Whitney, ED Nursing Manager, MetroWest Framingham

Dedie Wieler, Chief Quality Officer, Martha's Vinyard Hospital

Edward Williams, Lieutenant, Brockton Fire Department

Mark Williams, Emergency Management Director, Town of Milton

Mary Williamson, Public Health Nurse, Weymouth Public Health Dept

Joseph Wilson, Deputy Superintendent, City of Cambridge Police Department

Leslie Wilson, Emergency Department, RN, Marlborough Hospital

Elizabeth Wisgirda, Director of Patient Access, South Shore Hospital

Susan Wolf-Fordham, Senior Project Manager, EK Shriver Center

Teresa Wood Kett, Public Health Specialist, Newton Health & Human Services Department

Tina Wright, Project Coordinator, PI & EM, Massachusetts League of Community Health Centers

Nancy Wynne, Clinical Coordinator SDC/PACU, MetroWest Natick

Lillian Yadgood, Emergency Management Director, Hallmark Healthcare

Michael Young, Deputy Chief Plymouth FD, Town of Plymouth

Jeff Zach, ED Medical Director, Martha's Vinyard Hospital

Dori Zaleznik, Commissioner of Health and Human Services, City Of Newton

Lisa Zani, Assistant CNO, MWMC

Lori Zanin, Administrative Director of Laboratory Services, Milton Hospital

Voices of Experience:
Leadership During a Disaster

Appendix: Presentations

The Virginia Tech Response – M. Scott Hill, MEd, MHA, FACHE

Response to the 35W Bridge Collapse – John L. Hick, MD

Central London Suicide Bombings - 7th July 2005 – David Whitmore

VIRGINIA TECH RESPONSE 



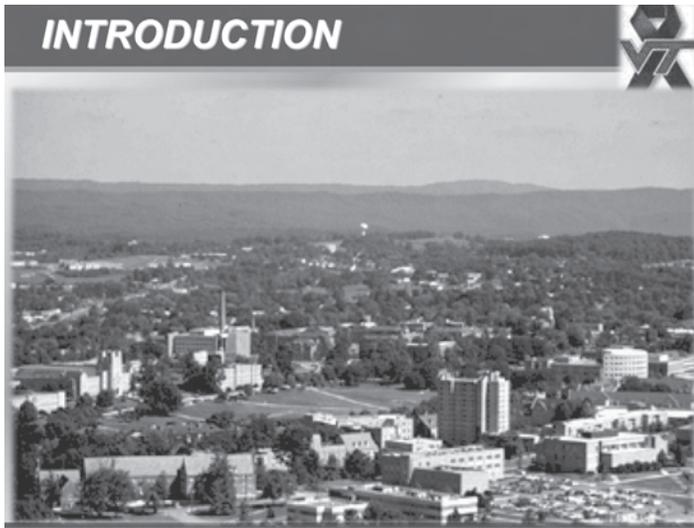
Scott Hill, M.Ed., MHA, FACHE
Chief Executive Officer
LewisGale Hospital Montgomery – Blacksburg, Virginia

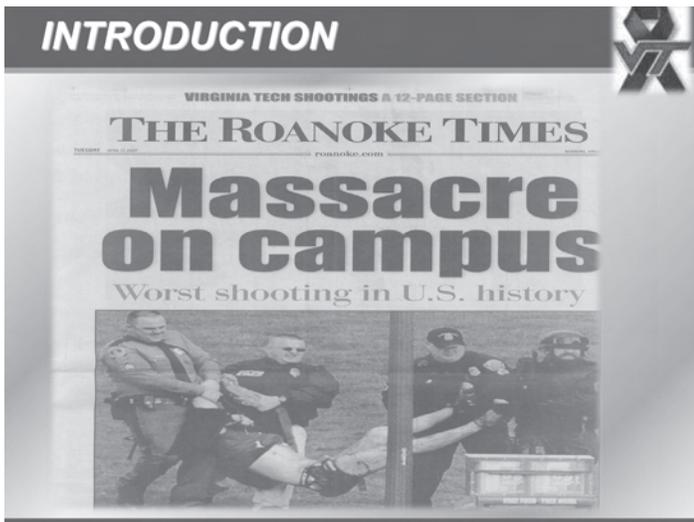
INTRODUCTION 

Blacksburg, Virginia

Population: 41,000
Service Area Population: 150,000









INTRODUCTION 

April 16, 2007

- Unseasonably cold day in Blacksburg
32 degrees
- High wind warning 30-40 MPH gusting
to 60+ mph

INTRODUCTION 



INTRODUCTION 

 **LewisGale Hospital**
Montgomery
HCA Virginia Health System
An HCA affiliate

- 146 bed acute care facility
 - Licensed by the Commonwealth of Virginia
 - Accredited by The Joint Commission
- Emergency Room – Trauma Level III
- Major Services: General Medicine, General Surgery, Cardiology, Pulmonary, Orthopedics, Obstetrics, Gastroenterology, Urology, Oncology, Emergency Medicine
- Core teaching hospital affiliated with the Edward Via Virginia College of Osteopathic Medicine (VCOM) 

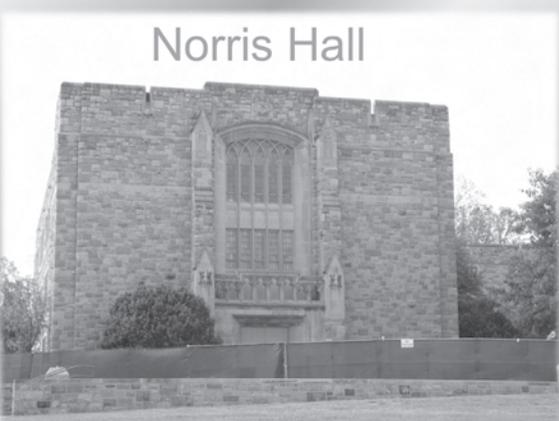
INTRODUCTION 

Other Area Hospitals

- New River Valley Medical Center – Radford, VA (15 miles)
– Level III Trauma Center
- Giles Memorial Hospital - Pearisburg, VA (24 miles)
– Non Trauma Designated Hospital
- **Lewis-Gale Medical Center** - Salem, VA (30 miles)
– Non Trauma Designated Hospital
- **Pulaski Community Hospital** - Pulaski, VA (35 miles)
– Non Trauma Designated Hospital
- **Carilion Roanoke Memorial Hospital** - Roanoke, VA (42 Miles)
– Level I Trauma Center

INTRODUCTION 

Norris Hall



TOPICS OF DISCUSSION 

- Emergency Medical Services (EMS) Response
- Hospital Response
- What Went Well
- Lessons Learned
- Recovery - We Are the Hokies!

EMS RESPONSE



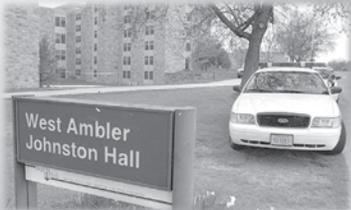

The EMS Environment

- 6 Volunteer EMS Stations
- 2 Squads in Immediate Vicinity
 - Virginia Tech Rescue Squad (VTRS)
 - Blacksburg Rescue Squad (BRS)

EMS RESPONSE



- 0721
 - Virginia Tech Rescue Squad (VTRS) dispatched to 4040 West Ambler-Johnston Hall ("West A.J.") for "subject fallen from loft"
- 0724
 - Virginia Tech Rescue Squad Responds
 - VT Dispatchers advises further: "Subject lying against inside of door and pool of blood seen"
- 0729
 - Patient Contact
 - 2 subjects with GSW's



EMS RESPONSE



- 0735
 - GSWs to head in both victims
 - VTRS requests LifeGuard Helicopter
 - Advised unable to respond (fly) due to weather (snow flurries and high winds)
 - Would remain unavailable for rest of day due to high winds
- 0744
 - Both patients transported to MRH
 - Advised shooting was most likely the result of a "love triangle"

EMS RESPONSE

- 0942
 - VT Police Department dispatched to Norris Hall “Active Shooter”
- 0946
 - VT Rescue Squad dispatched for shootings in progress
 - VT Rescue Squad begins setting up command post at their squad station just a few blocks from Norris Hall



EMS RESPONSE

- 0947 “Multiple GSWs”
 - VTRS contacts BRS requesting assistance
 - All available units mobilized from BRS
- 0948 “Bring them all!”
 - All Montgomery County EMS Agencies alerted to respond to the secondary staging at BRS station



EMS RESPONSE

- Initial Chaos – Everyone on different frequencies
 - BRS units were first to arrive at Norris Hall but did not see any evident command structure and did not yet know location of Command Post
 - VTRS had established a Command Post at VT EMS Station and a Triage/Treatment area nearby, but were having trouble communicating this to all ambulances because of the radio frequency differences
- Confusion among rescue squads as to where to go for “staging area”



EMS RESPONSE



- What was actually happening in Norris Hall?
 - Blacksburg Police were sweeping classrooms
 - SWAT medics were doing initial triage in classrooms
 - Viable victims were initially moved into hallway
 - Once building was deemed safe by police, EMTs moved in to begin assessing victims and removing them to the BRS Triage area outside the Norris Hall entrance



EMS RESPONSE



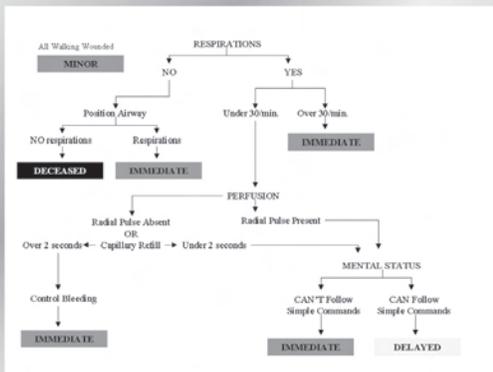
- What was actually happening outside Norris Hall?
 - Self-rescuers were corralled by BPD and transported via BPD vehicle to VT treatment area
 - One victim hobbled to a nearby Transit bus which transported him to MRH
 - Units from other county agencies were directed by police to the staging area near Norris Hall



EMS RESPONSE



S.T.A.R.T. Triage Algorithm



Simple Triage And Rapid Treatment

EMS RESPONSE

➤ **Improvements on the fly**

- By 1015 Unified Command Post Established at VTRS Station a few blocks from Norris Hall
- VTRS and BRS had joined the two communication nets together
 - Coordinated response of the two EMS agencies
 - Established Ongoing Communications with Hospitals
- Established a primary and secondary staging for incoming EMS units
 - Both a few blocks away



EMS RESPONSE

➤ **1051**

- All viable patients removed from Norris Hall to either Transport Units or Treatment Area

➤ **1058**

- False Alarm of 2nd shooter on opposite side of campus

➤ **1118**

- Bomb threat reported at Norris and adjacent Holden Halls

➤ **1151**

- All patients confirmed transported from scene



EMS RESPONSE

The Numbers

- 29 Total EMS Transported
 - 26 total number of victims transported
 - 3 victims transported from MRH and NRCC to RMH
- Final Deceased (Black) Count: 33



➤ 14 Agencies, 27 ALS Ambulances, 120+ EMS Personnel

• Blacksburg Rescue Squad	• Giles Rescue Squad
• Virginia Tech Rescue Squad	• Newport Rescue Squad
• Christiansburg Rescue Squad	• Lifeline Ambulance Service
• Shawsville Rescue Squad	• Roanoke Fire/EMS
• Longshop/McCoy Fire/Rescue	• Vinton First Aid Crew
• Carilion Patient Transportation Services	• Radford University EMS
• Salem Rescue Squad	• City of Radford EMS

EMS RESPONSE



“Overall the EMS response was excellent and the lives of many were saved.... The results in terms of patient care are a testimony to their medical education and training for mass casualty events, dedication, and ability to perform at a high level in the face of the disaster that struck so many people.”

Review Panel

HOSPITAL RESPONSE



**LewisGale Hospital
Montgomery**

HCA Virginia Health System
An HCA affiliate

Hospital Timeline of Events

HOSPITAL RESPONSE



- 0750 – 0755: Two GSW victims arrive at MRH ED from Virginia Tech Campus.
 - Victim #1 is dead on arrival.
 - Victim #2 - two GSWs to head - evaluated and quickly transferred to RMH (Level One Trauma Center) at 0830 (Pronounced dead at RMH)
- 0945: Emergency Department notified of gunshots being fired on Virginia Tech campus.
 - Multiple Physicians Called STAT to ER
 - Hospital initiated controlled access.

HOSPITAL RESPONSE 

- 1000: Further information relayed from EMT at scene – “Prepare for Multiple GSW victims”
 - Condition Green (Disaster Code) called.
 - MRH Command Center opened
 - ED placed on divert to other EMS calls.
 - Elective OR procedures cancelled
 - 3 General Surgeons waiting in ED

HOSPITAL RESPONSE 

- 1005: First patient arrives from Norris Hall
 - Stopped local transit bus – drove patient to ED
- 1014 -1015: Two patients (YELLOW) arrive via EMS
- 1005 -1020: Stable ED patients (not involved in incident) transferred to outpatient surgery area to free ED beds.

HOSPITAL RESPONSE 

- 1030: Blood supply assessed at hospital and Red Cross notified
- 1030: Pharmaceutical Supply assessed. Pharmacist responded to ED
- 1030: Trauma materials and supplies assessed. Disaster Carts moved to area behind ED



HOSPITAL RESPONSE 

- 1030 – 1040: Four GSW (RED) victims arrive via EMS.
- 1036: Media calls began and were forwarded to Public Information Officer (PIO)



HOSPITAL RESPONSE 

- 1040: ED notified of 5 more victims on the way
 - MRH ER put on DIVERT
 - All further victims diverted to other area hospitals
 - Decision jointly by ER triage team
 - CNO
 - ED and Triage Physicians
 - EMT/RN Triage/Communication liaison
 - 4 Victims to CNRVMC
 - 5 Victims to LGMC

HOSPITAL RESPONSE 

- 1044 – 1056: Five more victims arrive via EMS.
- 1045: Chief of Surgery/Triage Officer takes critically wounded patient straight to OR
 - All 3 available general surgeons are now caring for critically ill patients who need to go to OR
 - ED Physician takes over as Triage Officer
 - Request goes out to Lewis Gale to send General Surgeon to MRH

HOSPITAL RESPONSE 

- 1100: Disaster/Trauma Counselors en route to MRH
- 1115: Unclear communications regarding number of additional patients to expect (ED had been put on divert status)
- 1120: Hospital liaison (Director of Emergency Medical Services) sent to Command Center at VT
 - Information relayed directly back to hospital

HOSPITAL RESPONSE 

- 1130: Additional Surgeon arrives from LGMC
- 1151: Hospital Liaison at VT confirmed all patients had been transferred from scene

HOSPITAL RESPONSE 

- 1212: MRH ED taken off divert.
- 1304 – 1310: Arrival of two patients who self-transported and were injured at scene, but not GSWs.
- 1330: Condition Green (Disaster Code) cleared

HOSPITAL RESPONSE 

- Hospital remained on controlled access until last patient was discharged.
- Disaster/Trauma Counselors remained at MRH for a week after incident and were available to patients, families, EMTs, and hospital staff

HOSPITAL RESPONSE 

MRH Medical Staff Response

- Physician/PA/NP Availability - Waiting in ED
 - 3 General Surgeons (2/3 Chest, 3/3 Vascular)
 - 2 Orthopedic Surgeons
 - 1 ENT Surgeon
 - 1 Urologist
 - 1 ED Physician
 - 2 Additional ED physicians
 - 2 Physician's Assistants
 - 1 Nurse Practitioner

HOSPITAL RESPONSE 

MRH Operating Room Capabilities

- 6 Operating Rooms
- 3 Anesthesiologists
- 4 CRNAS

WHAT WENT WELL 

Regular Drills

- Usually 1-2 small disaster drills per year
- 10/2007 County Wide Disaster Drill
 - Explosion of hazard waste truck outside local area hotel
 - Wanted 80 casualties but could only manage 50
 - All EMS in County involved and staged in the MRH ED including decontamination showers located outside ED
 - Multiple emergency squads, ambulances, and EMTs took part.
 - ED physicians actively involved
 - MRH staff actively involved
 - Other physicians called to check communications and see if available

WHAT WENT WELL 

- Patient re-triage and room assignment at ED door (Triage MD and EMT/RN)
- Patient received immediate screening in room and care was prioritized
- Disaster carts were already made up and easily available

WHAT WENT WELL 

- Excellent Physician response
- Excellent Staff Response - many responded prior to receiving call.
- Pre-established contacts and planning with community partners.
- Overwhelming Response from Community and Nation

WHAT WENT WELL 

- Counselors available quickly
 - Invaluable to patients, families, and to medical responders
- Counselors available for many weeks after the tragedy

LESSONS LEARNED 

Previous “Emergency Events”

- 8/2006 Prisoner overwhelmed his police guard in MRH ED, took his gun, and shot and killed the hospital security guard in front of the entire ED staff
 - MRH reassessed emergency procedures
 - Command issues
 - Staffing issues
 - Communication issues
 - Lock down procedures
 - Counseling issues – Emotional trauma, anxiety, depression
 - Disaster Planning – trauma carts

LESSONS LEARNED 

August 20, 2006



SHOOTING: Suspect was in jail on charges of attempted robbery

LESSONS LEARNED 

- Enhanced Patient Tracking
 - All victims need Triage Tags
 - Green – Yellow – Red
 - Injuries on tags helpful
- Speedy paper documentation essential or it is impossible to handle volume
 - Extra staff needed for paper work
- Trauma packets essential
- Patient ID essential (especially if unresponsive)
 - Must be able to track patients

LESSONS LEARNED 

- Better Communications needed
 - Internal and external
 - EMS Radiofrequencies need to be the same
 - Cell phones/Nextel systems overburdened
 - Cannot count on cell phones in an Emergency
 - Campus alert systems

LESSONS LEARNED 

- Administrative Liaison from hospital needs to be dispatched to scene Command Center immediately
- Police liaison needs to be at Command Center
- University liaison needs to be at Command Center

LESSONS LEARNED 

- Need for improved communication between University and Healthcare System
- JIC
- Noble Training Center

LESSONS LEARNED 

- Need consistent logical room ID system
- Consultants unfamiliar with layout of ED were “lost” in ED.
 - Named rooms hard to find
 - “Trauma”, “Cardiac”, “ENT”, “Suture”, etc.
- Rooms changed to “Numbers” post event



LESSONS LEARNED 

- Larger waiting area for family and friends.
- Delegation of assignments not normally in employees daily job duties.

LESSONS LEARNED 

- Lockdown and controlled access is a challenge for limited security personnel.
- Virginia State Police helped with lockdown

LESSONS LEARNED 

Again, practice and drills do pay off!!!

LESSONS LEARNED 

Panel Recommendations for EMS

- Countywide Communications Center
– To improve interoperability
- Unified Command Post to NIMS standards
– Include Law and University Officials
- Stricter adherence to NIMS nomenclature
- Early opening of Emergency Operations Center (EOC) - Web based to coordinate all EMS in area

LESSONS LEARNED



Panel Recommendations for EMS

- Annual Regional Disaster Drills
 - More inclusive
 - Regional Hospital Coordinators
 - State Agencies
 - Medical Examiner
- Accurately Completed
 - Triage Tags
 - Patient Care Forms – Trauma forms
 - Incident Command Service Forms
- Do not transport deceased in emergency mode
- Critical Incident Stress Debriefing (CISD) resources readily available as needed

LESSONS LEARNED



Emotional and Psychological Impact

- www.PsychHealthRoanoke.com
 - John Heil, DA, LCP, FAPA
- >30 Counselors, Local and National

LESSONS LEARNED



Hospital as a “Sanctuary”

- Information as “Dilemma”
 - Safe Harbor Provisions
 - VHHA WebEOC for patient tracking
- Ownership and Partnerships
 - Who is in charge?
 - Opportunism
 - Screening of Volunteers

LESSONS LEARNED

Media Control is Essential

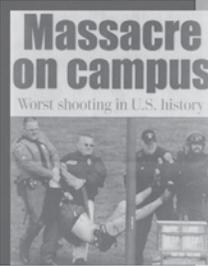
Media frenzy at its height



LESSONS LEARNED

SETTING THE STAGE

Massacre on campus
Worst shooting in U.S. history



A Global Story

- News teams from India, France, England, Holland, Canada and elsewhere
- Reporter Row in parking lot
- 300 calls a day

LESSONS LEARNED

SETTING THE STAGE

A Who's Who of Media

- Katie, Stone, Matt, Larry, Oprah, Greta
- NY Times, LA Times, Washington Post, USA Today, People, Newsweek
- Associated Press, NPR
- Healthcare publications



LESSONS LEARNED 

UNIQUE CHALLENGES
Overwhelming Media Call Volume

The Solution

- Staff up
 - HIM and Accounting handled family calls
- Use all available tools
 - Reporter hotline
 - Internet link
 - Proactive wire service releases
- Provide updates every 2-3 hours

DON'T HUNKER DOWN

LESSONS LEARNED 



LESSONS LEARNED 

UNIQUE CHALLENGES
The Glare of the Spotlight

The Solution

- Find the right spokesperson
 - Administrative and clinical
(Two isn't always better than one)
- Dive into the pool
- Let your employees tell their story
 - Choose wisely and trust



LESSONS LEARNED 

UNIQUE CHALLENGES
Patient and Family Ambivalence

The Solution

- Explain their options
- Be open with reporters

A father learns his son 'was right there'

By Mark Memmott
USA TODAY

LESSONS LEARNED 

UNIQUE CHALLENGES
The Search for the *Elusive Exclusive*

The Solution

- Find them a home
- Monitor their behavior
- Make tough choices about access
- Remember the hometown reporters

LESSONS LEARNED 

UNIQUE CHALLENGES

Where does reasonable involvement end...

And objectionable self-promotion begin?

LESSONS LEARNED 

Other Considerations

- Visual Image
- Media Impact
 - Understand motivations
 - Restriction of access
 - Local versus international
 - Maintain a therapeutic milieu

LESSONS LEARNED 

Long Term Impact

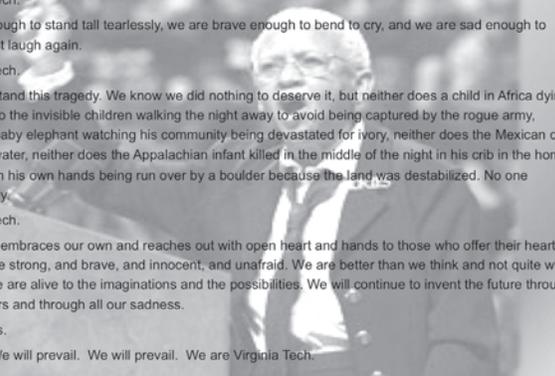
- Acute need peaked in day four
- Ongoing issues of fear, anger and uncertainty
 - Turnover
- Do not underestimate multitude and magnitude
- Address in EM Plan

RECOVERY 

We are the HOKIES!



We Are Virginia Tech
Nikki Giovanni's Address, Delivered April 17, 2007



We are Virginia Tech.

We are sad today, and we will be sad for quite a while. We are not moving on, we are embracing our mourning.

We are Virginia Tech.

We are strong enough to stand tall tearlessly, we are brave enough to bend to cry, and we are sad enough to know that we must laugh again.

We are Virginia Tech.

We do not understand this tragedy. We know we did nothing to deserve it, but neither does a child in Africa dying of AIDS, neither do the invisible children walking the night away to avoid being captured by the rogue army, neither does the baby elephant watching his community being devastated for ivory, neither does the Mexican child looking for fresh water, neither does the Appalachian infant killed in the middle of the night in his crib in the home his father built with his own hands being run over by a boulder because the land was destabilized. No one deserves a tragedy.

We are Virginia Tech.

The Hokie Nation embraces our own and reaches out with open heart and hands to those who offer their hearts and minds. We are strong, and brave, and innocent, and unafraid. We are better than we think and not quite what we want to be. We are alive to the imaginations and the possibilities. We will continue to invent the future through our blood and tears and through all our sadness.

We are the Hokies.

We will prevail. We will prevail. We will prevail. We are Virginia Tech.

RECOVERY

**How MRH Responded To Their Needs
We Called In The Band . . .**



RECOVERY

**The Response
to the VT Band from
the ICU window**



RECOVERY 

A Visit from the Governor



RECOVERY 

The Coaches visit the victims

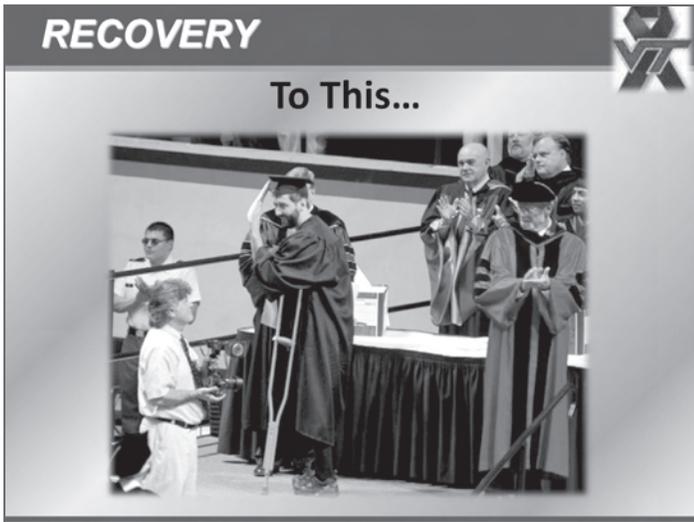


RECOVERY 

And President George Bush









RECOVERY 



We Will Prevail!

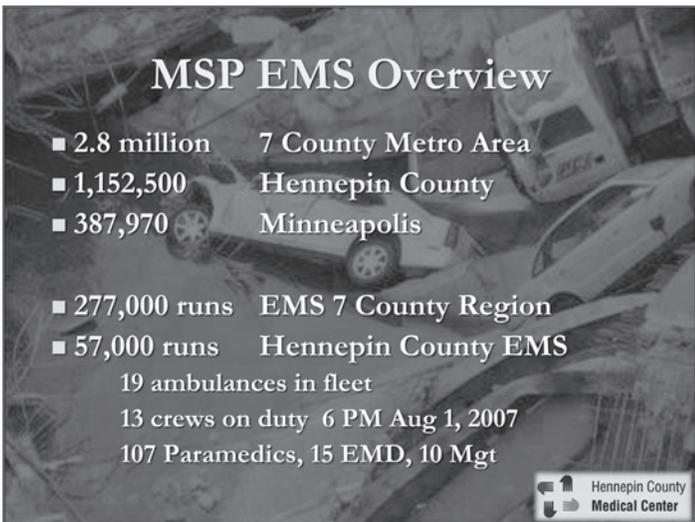






QUESTIONS?







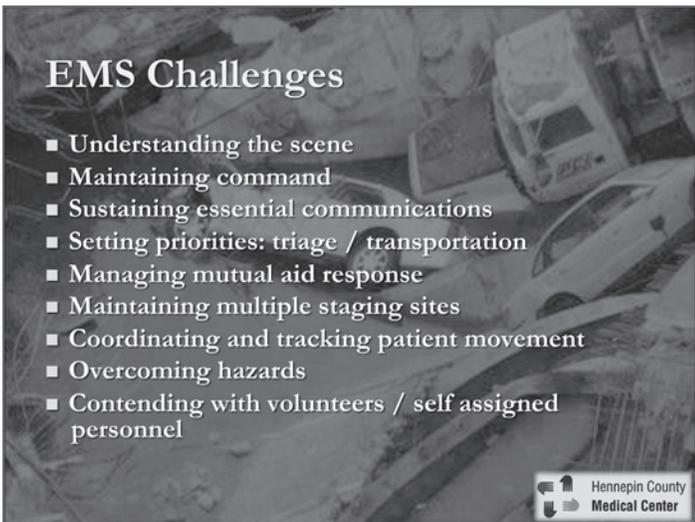
35W Bridge

- Built 1967
- Rated in recent years as: ‘structurally deficient, but not in immediate need of replacement’
- 2000 ft span, 64 ft high
- 141,000 cars / day
- Mississippi 390 ft wide, avg 7ft depth



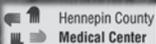
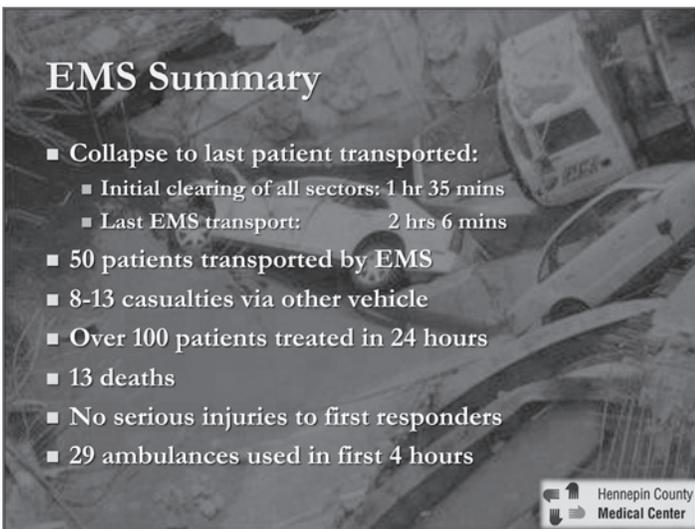
EMS Challenges

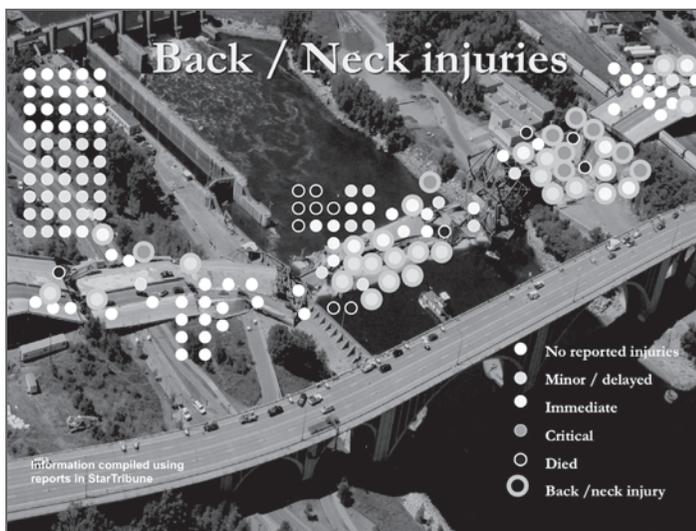
- Understanding the scene
- Maintaining command
- Sustaining essential communications
- Setting priorities: triage / transportation
- Managing mutual aid response
- Maintaining multiple staging sites
- Coordinating and tracking patient movement
- Overcoming hazards
- Contending with volunteers / self assigned personnel

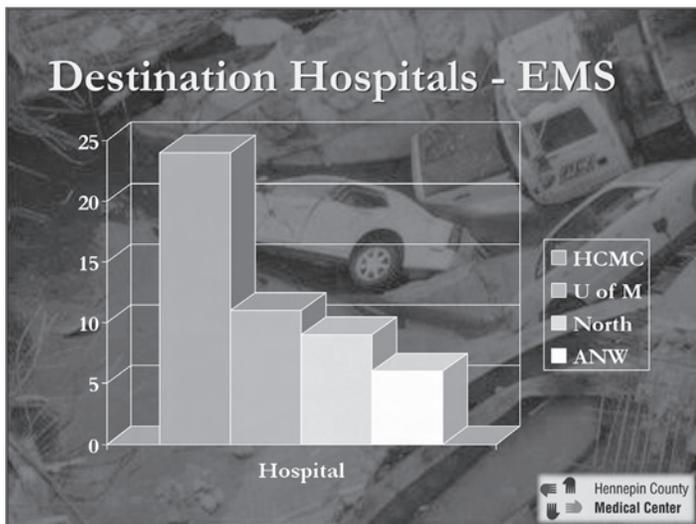


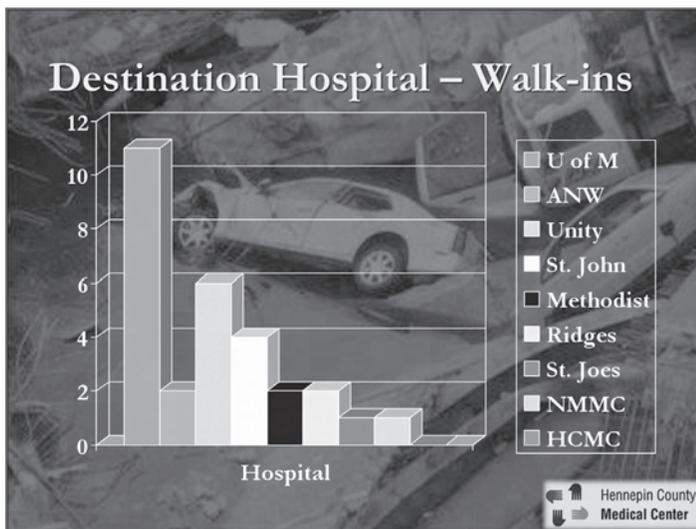
EMS Summary

- Collapse to last patient transported:
 - Initial clearing of all sectors: 1 hr 35 mins
 - Last EMS transport: 2 hrs 6 mins
- 50 patients transported by EMS
- 8-13 casualties via other vehicle
- Over 100 patients treated in 24 hours
- 13 deaths
- No serious injuries to first responders
- 29 ambulances used in first 4 hours



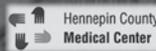






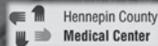
Delayed Patient Presentations

- Significant numbers following day, tapering next 2 days
- Total 48 additional patients = 127
- 1 admission in this group
- Mainly muscular back / neck pain
- Often behavioral health related (headaches, behavioral issues especially children)



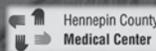
Mitigating Factors

- Weather
- Traffic / lack of forward motion of vehicles
- Use of automobile restraints
- 'Cushion' of bridge collapsing under vehicles and shocks, seats
- Location of event (proximity to hospitals and resources)
- Luck!



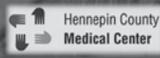
Worked well

- Regional EMS response plan / mutual aid
- TF-1 collapse rescue team deployment
- Incident management overall
- Civilian assistance (early)
- Public Safety teamwork
- Adaptation to challenges (pickups)
- Communications systems
- Rapid patient care and transport



Could improve

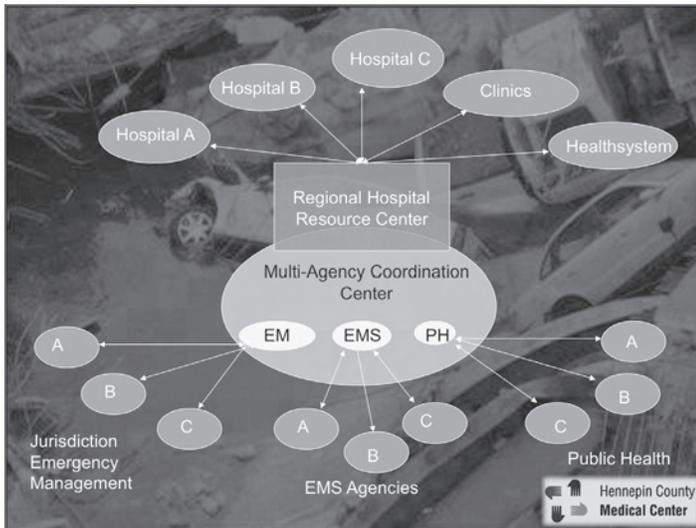
- Situation status / information flow
- Patient tracking
- Ambulance tracking
- Coordination / staging
- Victim tracking and coordination of lists
- Coordination with EOC and multiple agencies needing information
- Crowd control / scene hazard mitigation
- PIO / Media



Regional Baseline

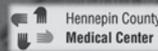
- 2.6 million population
- 24 EMS agencies, 29 hospitals
- HCMC is Regional Hospital Resource Center
- 3 Level 1 trauma centers
- Approximately 5000 acute care hospital beds





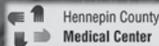
HCMC Response

- Initial information at 6:10pm
 - Hospital near capacity – 5 ICU beds available
 - 2 current critical cases in resuscitation area
- Charge RN turned on TV
- Alert Orange declared at 6:15
- ED staff paged: ‘get to HCMC now’
- Initial patients received (critical) at 6:40



Lack of Information

- Most difficult issue in ED was lack of information
- Public saw images before we did
- MRCC was not clear on the extent
- No direct contact with EMS supervisors/MD's from scene to ED
- Unsure if orange alert was needed



Clearing the ED

- Charge Nurse and Staff Physician went to each treatment area and cleared
- Special care used as triage area
- Cleared all of Team A -15 beds
- Cleared all of Team B- 13 beds
- Used Team C and express care for ongoing patients
- Admissions went straight up without delay



Initial 7 Patients at HCMC

	Key Injuries	ISS	Disposition
1	Cardiac arrest	34	Expired
2	Head and abdominal injury	30	OR
3	Abdominal injury	34	OR
4	Head and spinal injury	50	CT - OR
5	Head and spinal injury	17	CT - ICU
6	Abdominal injuries	12	CT - ICU
7	Abdominal injuries	22	OR



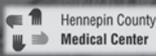
HCMC Response

- 25 patients received in 2 hours
 - 1 dead on arrival
 - 6 intubated
 - 5 emergently to OR
 - 16 total admissions (60%)
- By 7pm:
 - 25 ICU beds open
 - 10 OR open and staffed
 - 3 CT scanners running



ICU Capacity

- Additional 22 beds opened
 - Transfers from MICU / CCU to stepdown (none required re-transfer)
 - Post-Anesthesia Care Unit beds
 - Cardiac Short Stay unit cleared by discharges or transfers
 - Same-day Surgery (12 beds) was NOT activated – next step in plan
- About 25% of usual capacity added – likely a good initial goal



HCMC Surgical Response

- Nursing
 - Nurse got only halfway through phone list
 - More staff showed up than needed
- 10 OR opened (vs. usual 2-3 on evening/night)
- Surgeons:
 - Surgeons not paged but went to Stabilization Room
 - On-call surgeon was quarterback in Stab Room
 - Junior surgeons operated



Surgical Learning

- Drills are important!!!
- Hierarchy and leadership are important
- Communication
 - Difficult (cell phones broke down)
 - Important!
 - ED to OR, Radiology, SICU
 - OR to SICU, Radiology
- Operations: damage control vs. definitive care
 - Rely on knowing what else is happening
 - Developing alternative communication techniques
- Supplies



Key Injuries Across All Hospitals

■ Back / neck muscular injury – multiple	■ Diaphragm disruption – two patients
■ Lumbar compression and burst fractures – multiple	■ Pregnancy complications – two patients
■ Cervical spine fractures - multiple	■ Liver laceration with hemoperitoneum
■ Extremity fractures – multiple including open fractures	■ Intestinal perforation, splenic rupture, traumatic abdominal hernia
■ Rib fractures – multiple	■ Open chest wound
■ Closed head injury - multiple	■ Shoulder dislocation



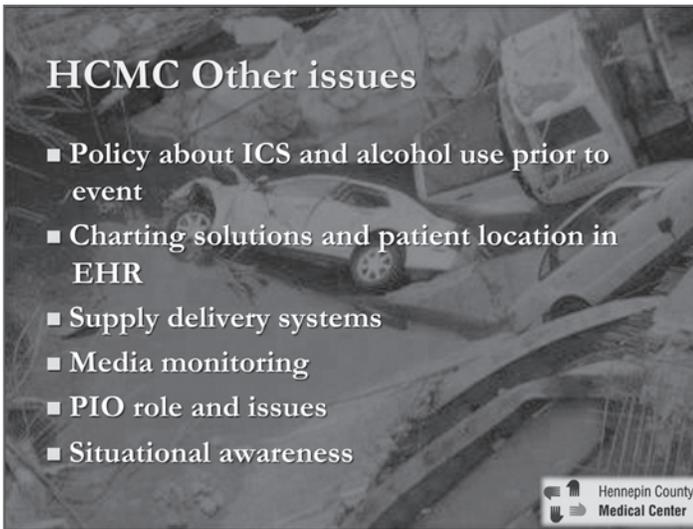
Injury Severity Scores

	Discharged	Admit	Admit ISS range	Admit ISS avg.
HCMC	9	16	1- 50	17
UMMC	14	12	3-14	6
NMMC	6	4	4-14	9.5

Hennepin County Medical Center

- ### Spine Injuries*
- 7/16 patients admitted
 - Three treated operatively
 - Four non-operatively treated
 - U of M
 - 7/11 patients
 - Mechanism felt to be axial load
 - No patients had neurologic deficit
- *Greg Sherr, M.D.: personal communication
- Hennepin County Medical Center

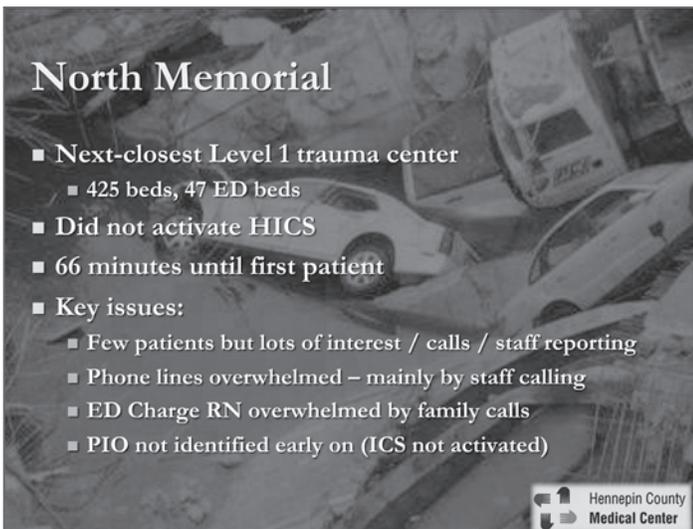
- ### HCMC Communication Issues
- Telephone system
 - External switchboard jammed
 - Internal lines available, but educational issues
 - Runners used
 - Internet experienced no failures
 - Paging
 - Mis-understanding about surgery MD group pagers
 - No provision to page surgical RNs / OR staff as group
 - Vocera
 - Family radios
- Hennepin County Medical Center



HCMC Other issues

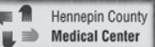
- Policy about ICS and alcohol use prior to event
- Charting solutions and patient location in EHR
- Supply delivery systems
- Media monitoring
- PIO role and issues
- Situational awareness

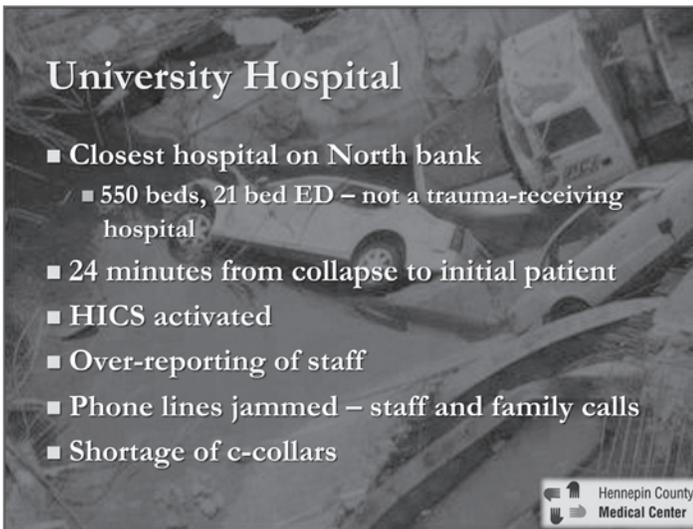




North Memorial

- Next-closest Level 1 trauma center
 - 425 beds, 47 ED beds
- Did not activate HICS
- 66 minutes until first patient
- Key issues:
 - Few patients but lots of interest / calls / staff reporting
 - Phone lines overwhelmed – mainly by staff calling
 - ED Charge RN overwhelmed by family calls
 - PIO not identified early on (ICS not activated)





University Hospital

- Closest hospital on North bank
 - 550 beds, 21 bed ED – not a trauma-receiving hospital
- 24 minutes from collapse to initial patient
- HICS activated
- Over-reporting of staff
- Phone lines jammed – staff and family calls
- Shortage of c-collars



University Hospital

- Temporary numbers
 - Began at '1' and thus confused with ED cubicle numbers at times
 - Did not integrate into medical records system (xray, lab)
 - Unable to track location of patients
- Patient care
 - In-house staff reported to ED and accompanied patients, but not generally ED trained thus no definitive care or assessment until later



Learning and applying

- Structured process
 - Hotwash
 - After-action review
 - Issue identification
 - Issue analysis
 - Corrective Action Plan
 - Follow-up / review plan
 - Exercise



Formal Review / After Action

135W Bridge Collapse and Response
 Minneapolis, Minnesota
 August 1, 2007

Reported by: Hollis Stumbaugh
 Harold Cohen

This is Report 136 of investigation and analysis of Major Fire Incidents and USFA Technical Report Series Project conducted by Technical Division of System Planning Corporation under contract (05-01-P00000) (05-01-P00001) to the U.S. Fire Administration (USFA), and is available from the USFA Web site at <http://www.usfa.gov>.



Department of Homeland Security
 United States Fire Administration
 National Fire Programs Division

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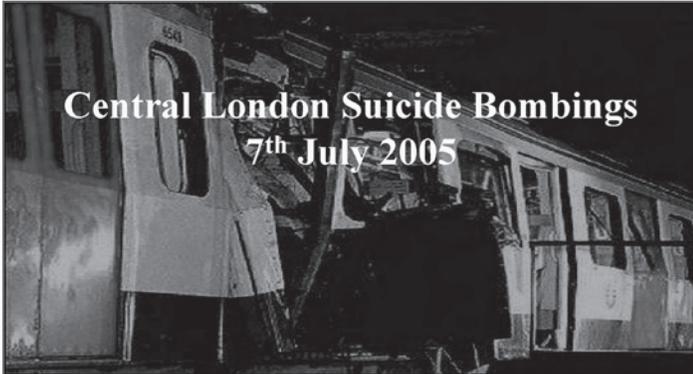
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Central London Suicide Bombings 7th July 2005

*A presentation by
David Whitmore
Senior Clinical Advisor to the Medical Director
London Ambulance Service NHS Trust*



London Ambulance Service
NHS Trust **NHS**

This talk will cover:

- A brief overview of The London Ambulance Service (LAS)
- A brief review of major incidents in London 1980 - 2005
- My personal account of the bombings, and an examination of all four sites
- Overview of LAS approach to major incidents
- An overview of the London Assembly Enquiry
- An overview of the official Inquest held by HM Coroner
- Some personal views



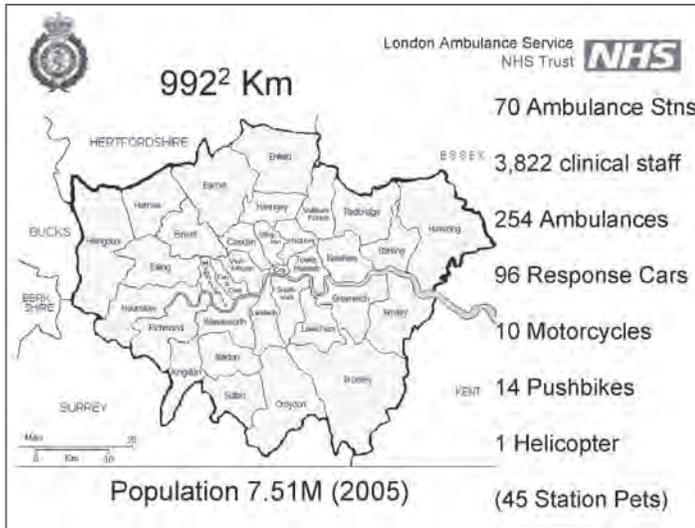
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Who we are

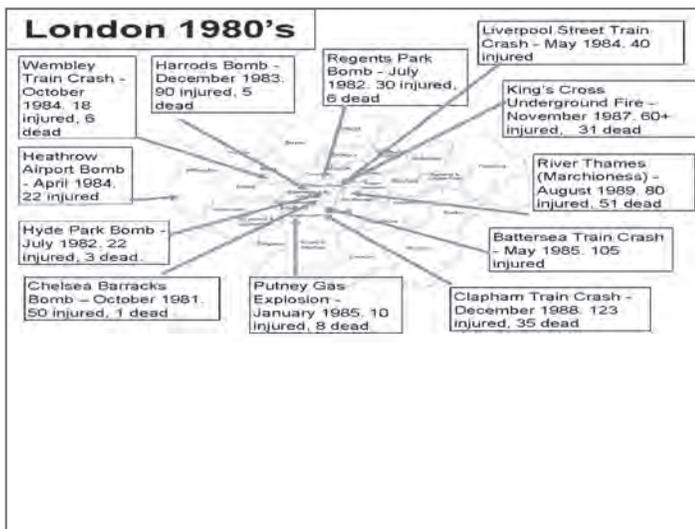
The London Ambulance Service NHS Trust is the largest emergency ambulance service in the world to provide healthcare that is free to patients at the point of delivery. It is the only London-wide NHS Trust and is at the frontline of the NHS in the capital.

We have two principal functions: we provide an accident and emergency service in response to 999 calls and a patient transport service which performs an important role by taking non-emergency patients to and from their hospital appointments.







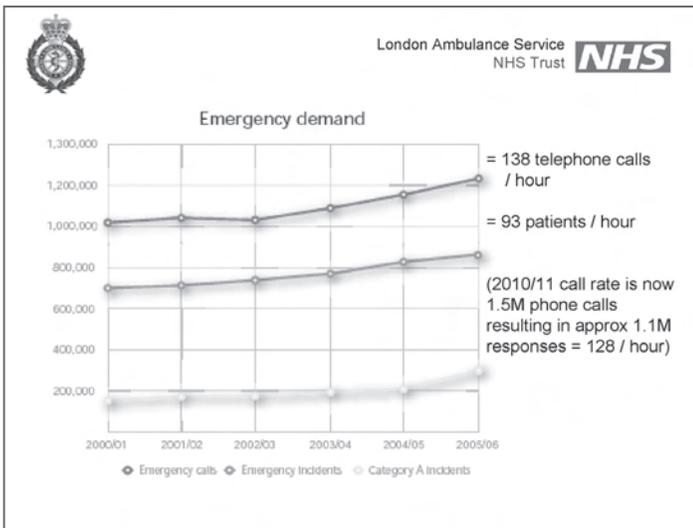


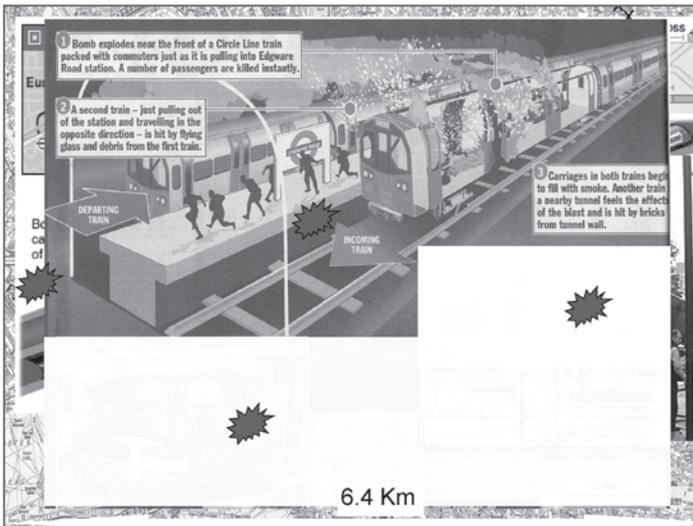
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The 6th July 2005 is the day
London wants' to remember ...

**LONDON
2012**





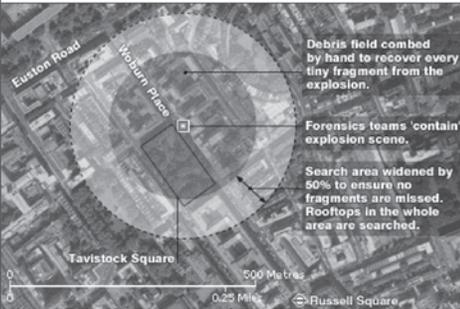








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Debris field combed by hand to recover every tiny fragment from the explosion.

Forensics teams 'contain' explosion scene.

Search area widened by 50% to ensure no fragments are missed. Rooftops in the whole area are searched.

The bomb detonated on the upper deck towards the rear of the bus



Roof and rear section destroyed



The bomb is estimated to have contained about 4.5 kg of high explosives



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(?Lost) Lesson
Difficulty with
communications





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(?Lost) Lesson
Management of the
incident
Focussing on the
incident, not the patient





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(?Lost) Lesson
Business continuity
Maintaining day to day
functioning



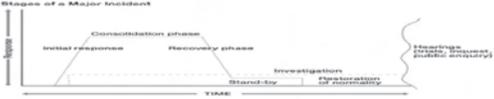


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Stages of Major Incident

2

2.1.2 Stages
2.1.3 Most major incidents can be considered to have four stages:
- the initial response;
- the consultation phase;
- the recovery phase; and
- the restoration of normality.
2.1.4 An investigation into the cause of the incident, together with the attendant findings, may be undertaken once the service resumes.





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One plan for all London Emergency Services

MAJOR INCIDENT Procedure Manual
Seventh Edition

But does everyone **REALLY** know about it, understand it and have the capability to put it into practice

-
- London Ambulance Service NHS Trust **NHS**
- Survey** – survey the scene on approach
 - Assess** – assess the situation on arrival
 - Disseminate** – disseminate the following information
 - Casualties** – casualties, approximate numbers of dead, injured and uninjured
 - Hazards** – hazards present and potential
 - Access** – best **access** routes for emergency vehicles
 - Location** – the exact **location** of the incident
 - Emergency** – emergency services and other agencies present and required
 - Type** – type of incident and brief details of number of vehicles, buildings, etc. involved
 - Safety** – all aspects of health and **safety** and risk assessment must be considered by all staff working at or close to the scene.

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1st Crew / resource on scene

- report arrival on scene to Emergency Operations Centre;
- confirm and/or declare a major incident;
- liaise with other emergency service incident officers;
- provide EOC with a detailed situation report (use CHALET or METHANE); and
- request ambulance/medical resources required pending the arrival of the AIO.

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Major – major incident declared (or hospitals to stand by)

Exact – exact location of the incident, with map references if possible

Type – the **type** of incident with brief details of types and numbers of vehicles, trains, buildings, aircraft, etc.

Hazard – hazards, present and potential

Access – access routes and suitable provisional rendezvous points (RVPs)

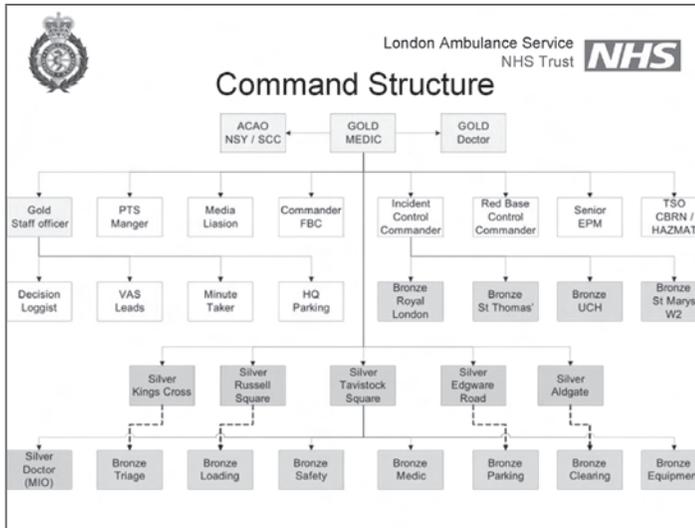
Numbers – approximate **numbers** of priority 1, 2 and 3 patients, dead and injured

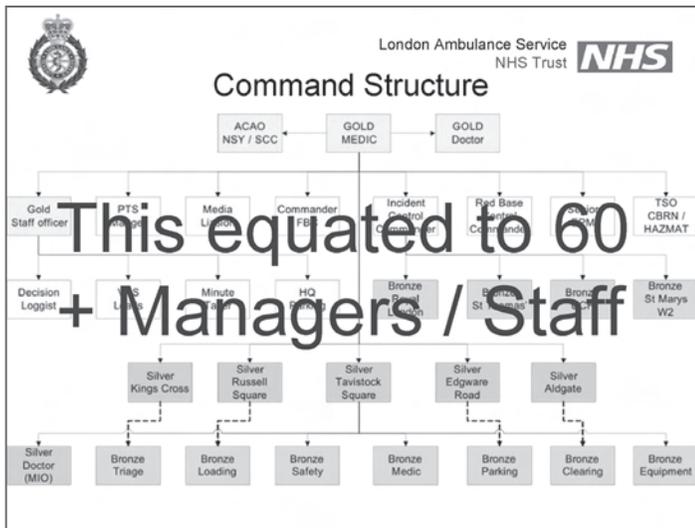
Emergency – emergency services present and required including local authorities.

Consider medical team(s), special equipment and services, i.e. HEMS, Emergency Planning Manager, BASICS, ECV, ESV.

Incident Control Room







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Scrutiny

Enquiries

Inquests

Lessons (Re)Learnt

Acknowledging that we often make the same mistakes!



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fifteen suicide attacks

The use of suicide bombers is a very effective method of delivering an explosive device to a specific location. Suicide bombers may use a large plane or other kind of vehicle as a bomb or may carry or conceal explosives on their person. Both kinds of attack are generally premeditated without warning. The most likely targets are mass casualty crowded places, symbolic locations and key installations.

When considering protective measures against suicide bombers, think in terms of:

- Using physical barriers to prevent a hostile vehicle from driving into your healthcare site through main entrances, goods/service entrances, pedestrian entrances or open land
- Denying access to any vehicle that arrives at your goods/service entrances without prior notice and holding vehicles at access control points until you can safely yourself that they are genuine
- Whenever possible, establishing your vehicle access control point at a distance from the protected site, setting up regular patrols and briefing staff to look out for anyone behaving suspiciously. Many terror attacks are prevented by reconnaissance or real-time. Ensure that such incidents are reported to the police.
- Ensure that no one visits your protected area without your being sure of his or her identity or without proper authority. Seek further advice through your local police force's Counter Terrorism Security Advisor (CTSA).
- Effective CCTV systems especially with an active monitor, may deter a terrorist attack or even identify planning activity. Good quality images can provide crucial evidence in court.

Capacitate yourself for the future
Security choice for the future

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Figure 1. Framework for the NHSS

Achieving National Health Security

Goals

- Build community resilience
- Strengthen and sustain health and emergency response systems

Strategic Objectives

Informed and engaged individuals, communities	Rational health security workforce	Integrated, stable health care delivery systems	Situational awareness	Timely and effective communications
Effective disaster measures enterprise	Preventable mitigation of environmental, other health threats	Post-incident health recovery and response	Cross-border and global partnerships	Science, evaluation, quality improvement

Operational Capabilities

NATIONAL HEALTH SECURITY STRATEGY of THE UNITED STATES OF AMERICA

U.S. Department of Health and Human Services

DECEMBER 2009

A Patient's Perspective

"We could not communicate with the driver, because communications had been cut, but we needed someone or something to be able to tell us, 'We know you are there.' We were stuck there, for about half an hour, not knowing if we were going to live or die, if someone was going to come and get us or not".



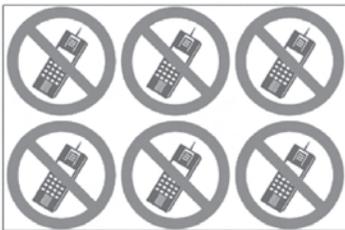
Patient Liaison



Appoint Patient Liaison Officer

To communicate with patients and members of the public, throughout the incident





Critical Incident Logiest

Role responsible for maintaining the critical incident log - a list of critical entries taken from the overall incident log highlighting those requiring urgent action.



Pagers

Need for robust paging services
Kings Cross 1987
By 2005 Pagers considered obsolete and removed from service
Rapidly reintroduced post 7th July 2005
Ease of messaging



Communication problems

Incidents at multiple sites
Delay in despatching resources
Close location of secondary incident
Resources sent to wrong location
Lack of information to local hospitals
Clinical staff self deploy



Communication problems

- Incidents at multiple sites
- Delay in recognition
- Underground locations
- Identifying exact location
- Access
- Multiple egress points
- Comms (radio) failure



Communications: in summary

- Vast amount of information – failure to highlight critical items
- Always a problem – assume they won't work
- Avoid use of mobile phones





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Refined Lesson
Triage - 1st time that triage
has been subject to such
intense legal scrutiny



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Action Cards / Aide Memoire have been personal issue to all LAS staff since 2002



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Triage cards on 7th July
(Over 500 used)



Amendment to Bronze Triage made 2005

Primary Triage Officer
Formalised as a bronze role responsible for the initial triage of patients at the forward incident site.

Secondary Triage Officer
Formalised as a bronze role responsible for the triage sort of patients in the Casualty Clearing Station.



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 **GILL HICKS**
Survivor of the London bombings
One Unknown

Gill is a testament to the success of Triage principles, multi-disciplinary teamwork (none of whom had ever met each other before the bombings), all allied to determination not to give up if there was even a slight chance.

Although I made a number of Triage decisions regarding Gill, I always assumed that she had not survived overall.

My joy on seeing a newspaper article about her some months later, literally gave me palpitations.

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Gill's own words

And then I heard two words, two of the best words that I could ever hear - "P(riority) One" - and a tag of some sort was placed on me. That sounded fantastic!

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Gold Command

Initial Actions

- Understanding what is happening !
 - How many incidents/locations
 - Scale of the likely casualties
 - Command teams deployed
 - Resources deployed
 - Information flows. Communication Issues
 - What might happen next



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Gold Command

Initial Actions

- Establishing Gold Command Team
- Establishing meeting Structures
- Liaising with other emergency services
- Liaising with Health Gold/Dept.Health/Government
- Alerting/Communicating with Hospitals



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Gold Command

Dealing with “ordinary” incoming “999”
(911) workload = 144/hour (2005
figure)

(2011 call rate approx 180 / hour)



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On 7/7 Estimated at 50% of normal:

still equates to 70 telephone calls
resulting in 50 patients:

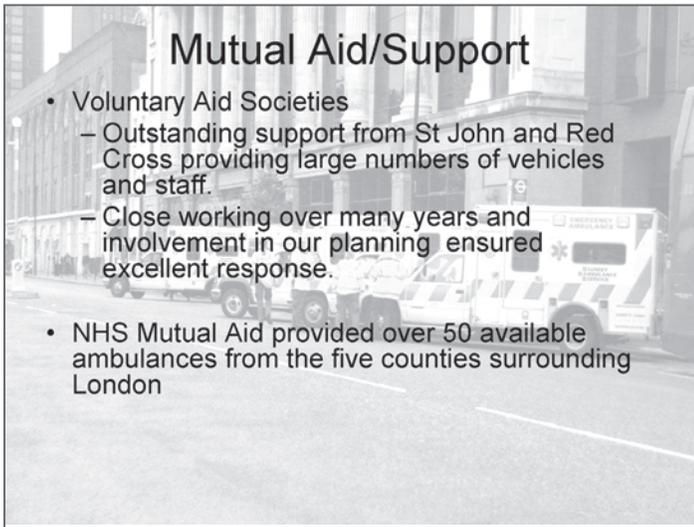
(estimate average 1.4 calls/patient)



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Emergency Operations Centre (Main Control Room)

- Major Incident procedures instigated
- Major incident Control Room opened to manage incidents.
- Incident Commander appointed
- Back Up control opened and team established
- Decisions to restrict normal 999 responses implemented quickly.



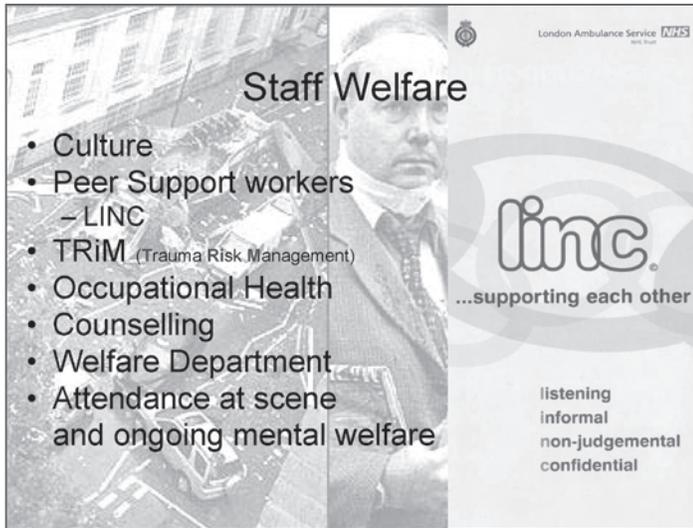
Mutual Aid/Support

- Voluntary Aid Societies
 - Outstanding support from St John and Red Cross providing large numbers of vehicles and staff.
 - Close working over many years and involvement in our planning ensured excellent response.
- NHS Mutual Aid provided over 50 available ambulances from the five counties surrounding London



London Ambulance Service
NHS Trust **NHS**





Staff Welfare

- Culture
- Peer Support workers – LINC
- TRIM (Trauma Risk Management)
- Occupational Health
- Counselling
- Welfare Department
- Attendance at scene and ongoing mental welfare

London Ambulance Service **NHS**

linc.
...supporting each other

listening
informal
non-judgemental
confidential



Evening Standard

CARNAGE
Over 40 dead, hundreds hurt as terrorist bombs hit London

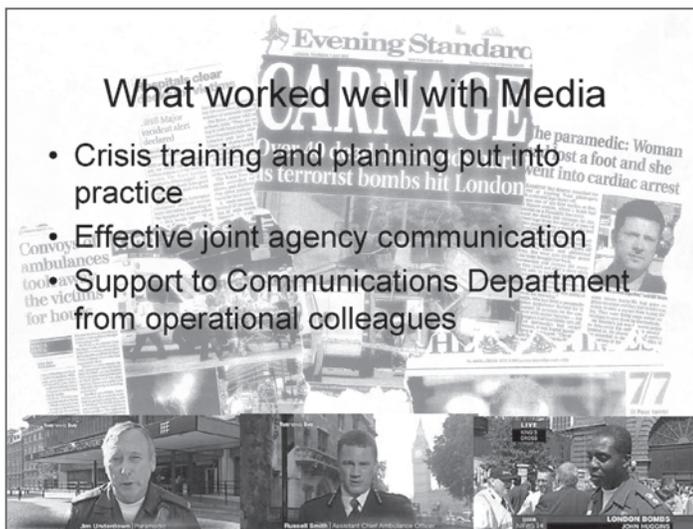
Hospitals clear decks for victims

Convoys of ambulances took away the victims for hours

King's Cross

The paramedic: Woman had lost a foot and she went into cardiac arrest

77



What worked well with Media

- Crisis training and planning put into practice
- Effective joint agency communication
- Support to Communications Department from operational colleagues

Evening Standard

CARNAGE
Over 40 dead, hundreds hurt as terrorist bombs hit London

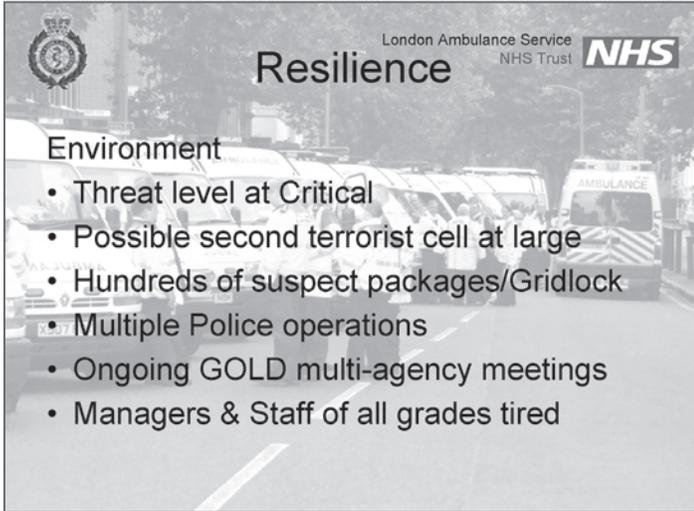
The paramedic: Woman had lost a foot and she went into cardiac arrest

77

Ann Underdown (Photographer)

Russell Bailey (Assistant Chief Ambulance Officer)

LONDON BOMBERS JOHN HUGHES

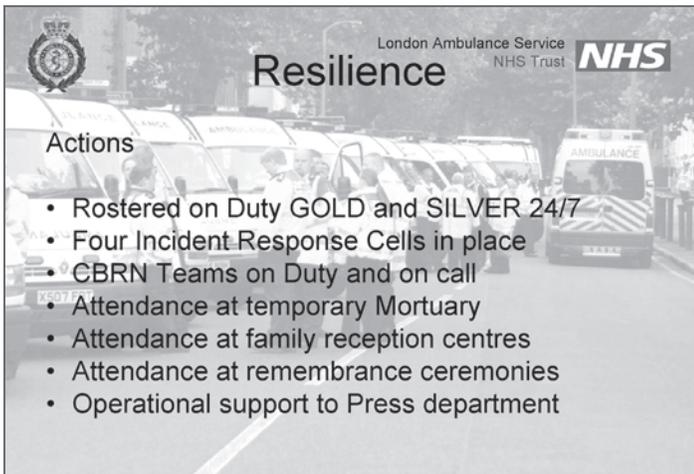


London Ambulance Service NHS Trust **NHS**

Resilience

Environment

- Threat level at Critical
- Possible second terrorist cell at large
- Hundreds of suspect packages/Gridlock
- Multiple Police operations
- Ongoing GOLD multi-agency meetings
- Managers & Staff of all grades tired



London Ambulance Service NHS Trust **NHS**

Resilience

Actions

- Rostered on Duty GOLD and SILVER 24/7
- Four Incident Response Cells in place
- CBRN Teams on Duty and on call
- Attendance at temporary Mortuary
- Attendance at family reception centres
- Attendance at remembrance ceremonies
- Operational support to Press department



BOMB SUSPECTS 21st July 2005

Osman Hussain

Westbourne Park

Shepherd's Bush

Warren Street

Yasin Hassan Omar

Muktar Said Ibrahim

Bank

Hackney Road

Oval

Stockwell

Ramzi Mohammed

London Underground lines

- Hammersmith & City
- Victoria
- Northern
- Station



London Ambulance Service
NHS Trust **NHS**

What went well: (Despite 6 years of scrutiny & debate)

- Tried and Tested Procedures for London worked well
- Established relationships were important
- Command Structures at Gold (Strategic) and Silver (Tactical)
- Mutual Aid
- Media management
- Staff welfare
- Resilience Planning
- Team Working across the Lond Amb Ser



London Ambulance Service
NHS Trust **NHS**

What did not go so well

- Communications/Mobile Phones
- Some delays in getting second wave of ambulances to one scene.
- Some Confusion for crews when two explosions (scenes) were close together.
- Issues with distribution of casualties
- Information Management



Key Messages London Ambulance Service
NHS Trust **NHS**

- Western Europe has now seen its first suicide bombers. Mindsets must change
- Multiple simultaneous incidents designed to maximise casualties must be expected
- Extensive Planning before the event is essential – "Role not Rank" needs extensive exercising
- Communications, Communications, Communications



