



-Fortuna Favet Paratis-

est. 2006

2019 Year in Review

Cullen Case Jr.

RITN Program Manager

Operated by the National Marrow Donor Program/Be The Match

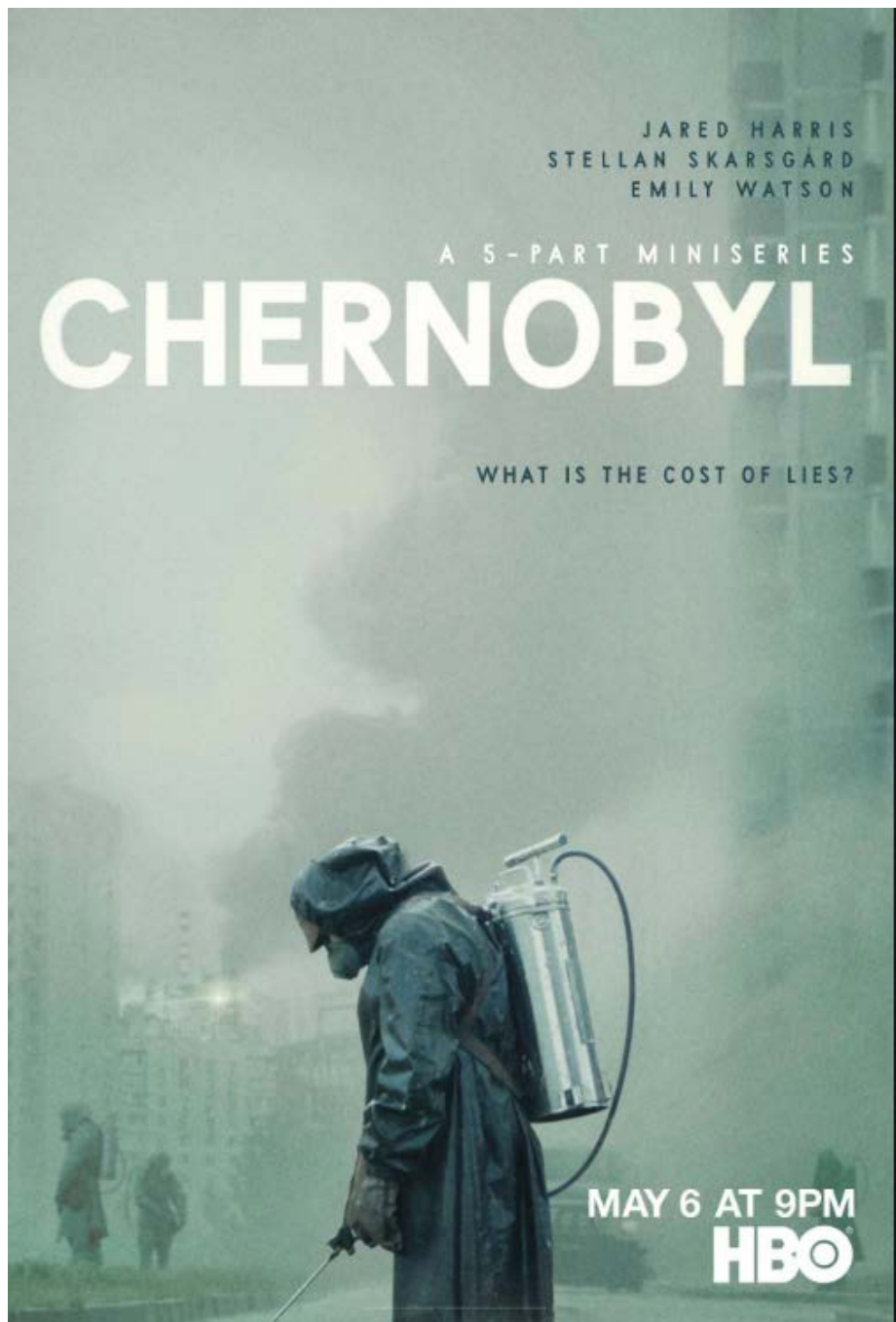
RITN@nmdp.org

www.RITN.net

January 7, 2020

Agenda

- 2019 Rad in the News
- 2019 Highlights
- 2020 Projects
- 2020 Tasks
- Guest Speaker Professor Tener Veenema



Why Tourists Are Flocking to Chernobyl

HBO's 'Chernobyl' led to a sharp uptick in tours to the infamous disaster site. One hospitable

By David Farley

Dec. 12, 2019 1:15 pm ET

Visitors at Chernobyl can now tour the control room, where radiation levels could be 40,000 times higher than normal

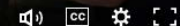
Aria Bendix Oct 6, 2019, 7:21 AM



Search for: vanity fair chernobyl



0:14/13:23



ARTS & CULTURE

Chernobyl Doctor Fact Checks the HBO Series

Ukrainian medical responder and radiation expert Alla Shapiro reviews the validity of the HBO series "Chernobyl." Alla shares some real-life on-site experiences to explain whether clips from the series are true to what actually happened on April 26th, 1986 and the days that followed.

MT The Moscow Times

Russian Nuclear Blast Debris Is Still Emitting Radiation ...

Journalists in northern Russia have measured high levels of radiation near two abandoned boats that were brought ashore following last ...

3 weeks ago



Radio Free Europe/ Radio Liberty

Did A Botched Bid To Recover A Sunken Missile Cause The Russian Radiation Blast?

The explosion at a Russian naval test range earlier this month that killed ... sent out a plume of radiation may have occurred when specialists tried to ... And it matches up with a Google Maps image from 2019 of Kasputin Yar, ...

3 weeks ago



top Washington Post

Russia holds funerals for five nuclear workers who died in missile explosion

MOSCOW — As funerals were held Monday for five nuclear workers killed ... A “short-term” spike in radiation levels was reported Friday by ...

1 month ago



Fri, Jan 03, 2020

Newsweek

U.S. | World | Business | Tech & Science | Culture | Newsgeek | Sports | Health

NEWS

RUSSIA DEPLOYS FIRST OF 'INVULNERABLE' HYPERSONIC MISSILES PUTIN CLAIMS CAN DEFEAT ANY AMERICAN DEFENSES

BY DAVID BRENNAN ON 12/27/19 AT 11:58 AM EST

top Washington Post

Iran to take 'important' step away from nuclear accord, its president says

ISTANBUL — Iran will take a new and significant step away from the nuclear accord it struck with world powers, Iranian President Hassan ...

5 hours ago



The New York Times

North Korea Launches 2 Missiles, Its 7th Weapons Test in a Month

North Korea's latest test-firing came two days after South Korea decided to pull out of a military intelligence-sharing agreement with Japan.

2 weeks ago



The U.S. Tested A New Missile And We're All Worse Off Because Of It



Kyle Mizokami

Yesterday 1:03PM • Filed to: INF TREATY ✓



74.8K



188



2



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60%

A floating nuclear power plant has started to produce electricity in a remote region of Russia

PUBLISHED FRI, DEC 20 2019 5:50 AM EST

Photos indicate North Korea may be building submarine capable of launching nuclear missiles

A North Korean submarine capable of launching nuclear missiles would bolster the threat posed by the regime and make it more difficult for U.S. forces to counter the danger.

North Korea could have submarine capable of launching nuclear missiles, new images suggest

AUG. 28, 2019 / 01:07

NORTH KOREA WORKERS DAILY

'End of an era:' After 45 years, Three Mile Island nuclear power plant is closed

by [Andrew Maykuth](#), Updated: September 20, 2019

 New York Post

Three Mile Island's recent closure shows what people don't realize about nuclear power

Did you know that the Three Mile Island nuclear plant only shut down last Friday? Just like the coming closure of New York's Indian Point plant, ...

21 hours ago



Why Japan's Radioactive Water May End Up In the Ocean

By [Aaron Clark](#) and [Stephen Stapczynski](#) | Bloomberg

Dec. 24, 2019 at 11:38 p.m. CST

RITN Preparedness Efforts.... Exercises, Training and More....

Since 2006



807 exercises

***All exercise materials available on RITN.net



16,860 medical staff trained

***Free web-based courses available on RITN.net



18,400 dose of G-CSF, Peg G-CSF & GM-CSF on-hand

***Fluctuates throughout year, is sum of inventory at each RITN hospital



2,160 adult & 875 pediatric ARS inpatient beds w/in 24 hrs

2,825 adult & 1,130 pediatric ARS outpatient beds w/in 24 hrs



12,629 total blood stem cell transplants conducted

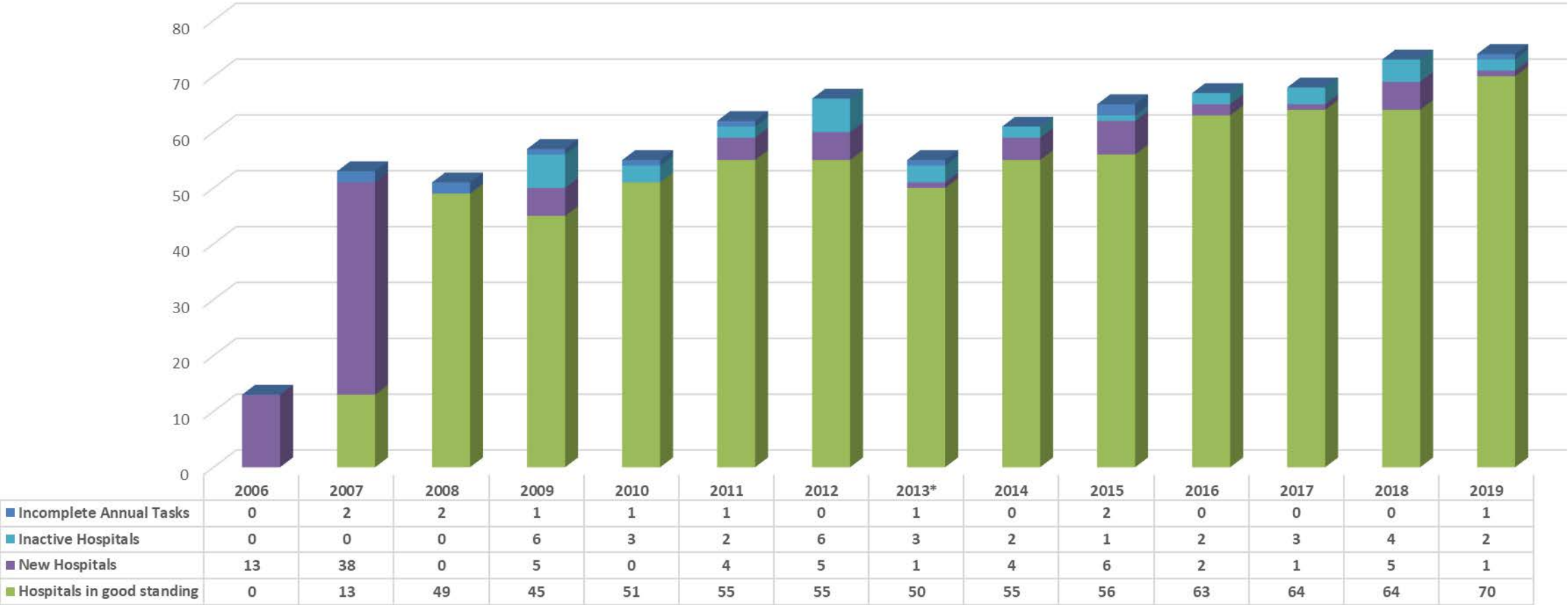
***during Fiscal 2018



74 hospitals and cancer centers

2019 Growth & Task Completion

RITN Hospital Growth



* Decrease in 2013 was due to the removal of DC and CBB from calculations



2019 Highlights

- Addition of MedStar Georgetown University Hospital
- Cytokine triage guidelines development
- Competency assessment project
- Radiation Track at NACCHO Annual conference
- Coordinated with American Burn Association to collaborate on interaction between the two medical specialties during a radiological disaster
- Exercises:
 - Four regional tabletop exercises with the metropolitan communities of Buffalo, Chicago, Denver and Omaha to strengthening preparedness through the coordination between RITN hospitals and their National Disaster Medical System partners in the region
 - Two functional exercises, one at Texas Children's Hospital (Houston) and the other at West Penn Hospital (Pittsburgh)

Exercise	Exercise Type	Date
Texas Children's Hospital	FSE	April 29
Guardian Response	FSE	April 30
West Penn	FE	24SEP19
Buffalo Regional	RTTX	28JUN19
Chicago Regional	RTTX	18JUL19
Dallas NDMS Regional	RTTX	TBD
Denver Regional	RTTX	29MAY19
Omaha Regional	RTTX	25JUL19
Annual RITN TTX #1 (EM focus)	TTX (web-based)	19JUN19
Annual RITN TTX #2 (EM focus)	TTX (web-based)	09JUL19
Annual RITN TTX #3 (EM focus)	TTX (web-based)	08AUG19
Annual RITN TTX #1 (Med focus)	TTX (web-based)	19JUN19
Annual RITN TTX #2 (Med focus)	TTX (web-based)	16JUL19
Annual RITN TTX #3 (Med focus)	TTX (web-based)	08AUG19
IND Medical Response Workshop #1	Workshop	TBD
IND Medical Response Workshop #2	Workshop	TBD
IND Medical Response Workshop #3	Workshop	TBD
NMDP Cyber TTX	TTX	SEP/OCT

2019 Highlights

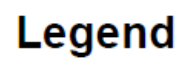
- Education:
 - 7th semi-annual 2019 RITN Workshop
 - *Crisis in context: Minding the gaps in medical preparedness for a Rad/Nuke Incident*
 - July 30-31 in Crystal City, VA
 - 160 attendees including the 47 speakers
 - 95.5% of the attendees responded as Satisfied or Very Satisfied to the survey (n=67)
 - Sponsored training:
 - Radiation Emergency Assistance Center and Training Site (REAC/TS) training: Advanced Medical Response to a Radiation Disaster at UCSF in July
 - Advanced HAZMAT Life Support (AHLS) training team training conducted two Medical Response to Radiation Disaster training courses at Mayo Clinic in Rochester, Mn

2019 Highlights

- Association of State and Territorial Health Officials (ASTHO) - National Alliance for Radiation Readiness (NARR), released four training videos funded by RITN to educate public health officials who are new to radiation disaster preparedness
 - Link to videos on RITN.net homepage
- Sponsored a Radiation Track for the annual National Association of City and County Health Officials (NACCHO) Preparedness Summit (1500+ attendees)

2019 Highlights

- Increased awareness of the RITN through presentations:
 - ASPR Innovation Day
 - BARDA Invited Speaker Series
 - Society of Disaster Medicine and Public Health Annual Conference
 - Bi-national Radiation Emergency Advisory Council in El Paso, TX
 - VA Central Iowa Health Care System Federal Coordinating Center National Disaster Medical System Seminar
 - World Health Organization's Radiation Emergency Medical Preparedness and Alert Network webinar
 - 38th US Military and Israeli Defense Forces Medical Conference in Tel Aviv ("The Shores" Conference)
 - National Academies of Science, Engineering and Math workshop



revised 11SEP19

Radiation Injury Treatment Network

Transplant Centers		Adult / Pediatric	Trauma Center	Burn Center	NDMS Hospital	HPP Hospital	Transplant Centers (cont.)		Adult / Pediatric	Trauma Center	Burn Center	NDMS Hospital	HPP Hospital	Transplant Centers (cont.)		Adult / Pediatric	Trauma Center	Burn Center	NDMS Hospital	HPP Hospital
AL	Children's Hospital of Alabama	P	T1	•	•	•	MA	Dana Farber/Partners Cancer Care	P/A			•	•	OH	University Hospitals Seidman Cancer Center	P/A	T1		•	•
AL	University of Alabama at Birmingham	P/A	T1	•	•	•	MA	Massachusetts General Hospital	A	T1	•	•	•	OK	Oklahoma Univ. Medical Center & Childrens Hosp.	P/A	T1		•	•
AZ	Banner University Medical Center	P/A	T1	•	•	•	MD	University of Maryland	A	T1		•	•	OR	Oregon Health & Science University	P/A	T1		•	•
CA	City of Hope National Medical Center	P/A			•	•	MI	Barbara Ann Karmanos Cancer Center	A			•	•	PA	AHN Cancer Institute West Penn Hospital	A		•	•	•
CA	Scripps Green Hospital	A			•	•	MI	Spectrum Health	P/A	T1	•	•	•	PA	Children's Hospital of Philadelphia	P	T1		•	•
CA	Stanford Health Care	P	T1		•	•	MN	Mayo Clinic Rochester	P/A	T1		•	•	PA	Temple University	A	T1	•	•	•
CA	UC Davis	A	T1	•	•	•	MN	University of Minnesota BMT Program	P/A	T2		•	•	PA	Thomas Jefferson University Hospital	A	T1	•	•	•
CA	UCSF Medical Center	P/A			•	•	MO	Barnes-Jewish Hospital at Washington	A	T1	•	•	•	PA	University of Pennsylvania Medical Center	A	T1		•	•
CO	Presbyterian/St. Lukes Medical Center	A	T4		•	•	MO	The Children's Mercy Hospital	P	T1	•	•	•	PA	UPMC	A	T1	•	•	•
CO	University of Colorado (Aurora)	A	T1	•	•	•	MS	University of Mississippi Medical Center	P/A	T1		•	•	RI	Roger Williams Medical Center	A			•	•
DC	Medstar Georgetown University Hospital	A			•	•	NC	Duke University Medical Center	P/A	T1		•	•	SC	Greenville Health System	A	T1			•
FL	Johns Hopkins All Children's Hospital	P	T1		•	•	NC	UNC Hospitals	P/A	T1	•	•	•	SC	Medical University of South Carolina	P/A	T1	•		•
FL	H. Lee Moffitt Cancer Center	P/A			•	•	MA	Dana Farber/Partners Cancer Care	P/A			•	•	SD	Avera McKennan Transplant Institute	A	T2			•
FL	Shands Hospital at the University of Florida	P/A	T1	•		•	NE	Nebraska Medicine	P/A	T1		•	•	TX	M.D. Anderson Cancer Center	P/A				•
FL	U of Miami/Sylvester Comprehensive Cancer Ctr	A	T1	•	•	•	NH	Dartmouth-Hitchcock Medical Center	A	T1			•	TX	Texas Children's Hospital	P	T1		•	•
GA	Emory University	A			•	•	NY	Memorial Sloan-Kettering Cancer Center	P/A			•	•	UT	LDS Hospital	A			•	•
GA	Northside Hospital	A			•	•	NY	Mount Sinai Hospital	P/A	T2		•	•	UT	Primary Children's Medical Center	P	T1		•	•
IA	University of Iowa Hospitals and Clinics	P/A	T1	•	•	•	NY	NorthShore Medical Center	A	T1	•	•	•	UT	University of Utah	A	T1	•	•	•
IL	Northwestern University MC	A	T1		•	•	NY	NYU Langone Health	A			•	•	VA	University of Virginia	A	T1		•	•
IL	Rush University Medical Center	A			•	•	NY	Roswell Park Cancer Institute	P/A					WA	Seattle Cancer Care Alliance	P/A				•
IL	University of Chicago	P/A	T1	•	•	•	NY	Strong Memorial Hospital	P/A	T1	•	•	•	WI	Children's Hosp of WI & Midwest Children's CC	P	T1	•		•
IN	Franciscan Hospital and Health Centers	A			•	•	NY	Westchester Medical Center	P/A	T1	•	•	•	WI	Froedtert Memorial Lutheran Hospital	A	T1			•
KS	University of Kansas Medical Center	A	T1	•	•	•	OH	Cincinnati Children's Hospital Medical Center	P	T1		•	•	WI	University Hospital (Madison)	P/A	T1	•		•
KY	University of Kentucky	A	T1		•	•	OH	Cleveland Clinic Foundation	P/A			•	•	WV	West Virginia University Hospitals	A	T1		•	•
MA	Children's Hospital of Boston	P	T1		•	•	OH	University of Cincinnati	A	T1		•	•							



**please report any corrections to this document to RITN@nmdp.org

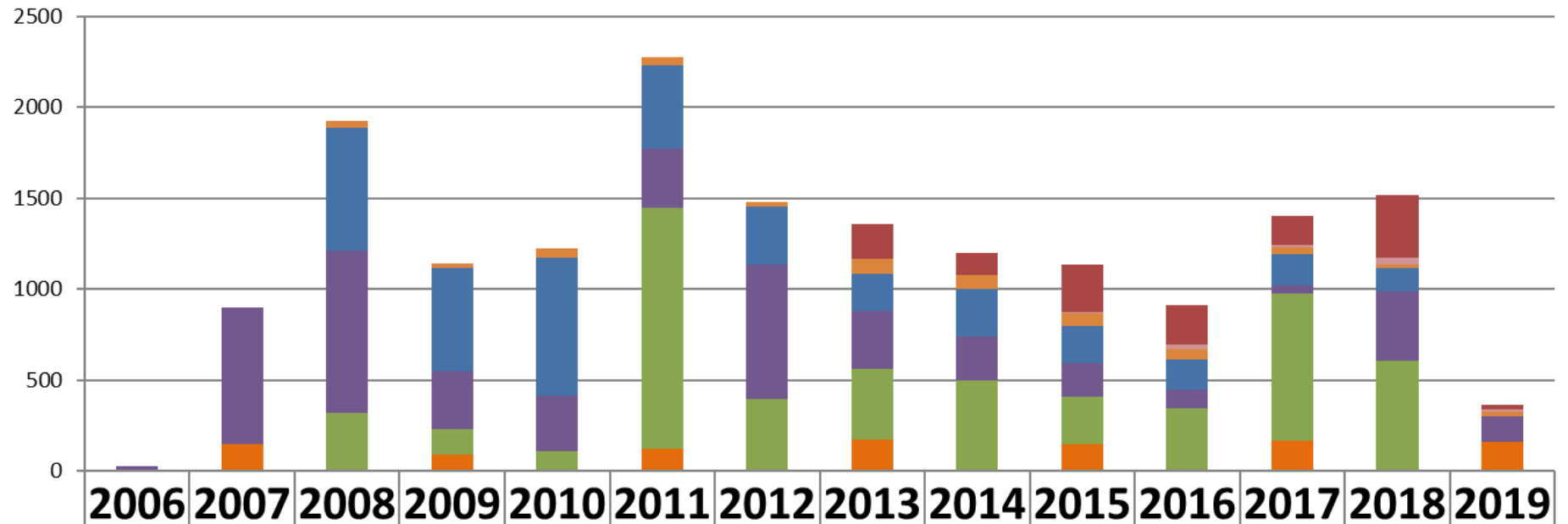
As of Oct 2019

P = Pediatric patient only facility
A = Adult capable facility
B = Burn center
T = Trauma capable facility (# denotes designation)

Total number of RITN centers	74	
Total Pediatric or Ped/Adult	40	54%
Total Trauma Centers	53	72%
Total Burn Centers	26	35%
Total NDMS Centers	58	78%
Total HPP Centers	67	91%

RITN Training & Education

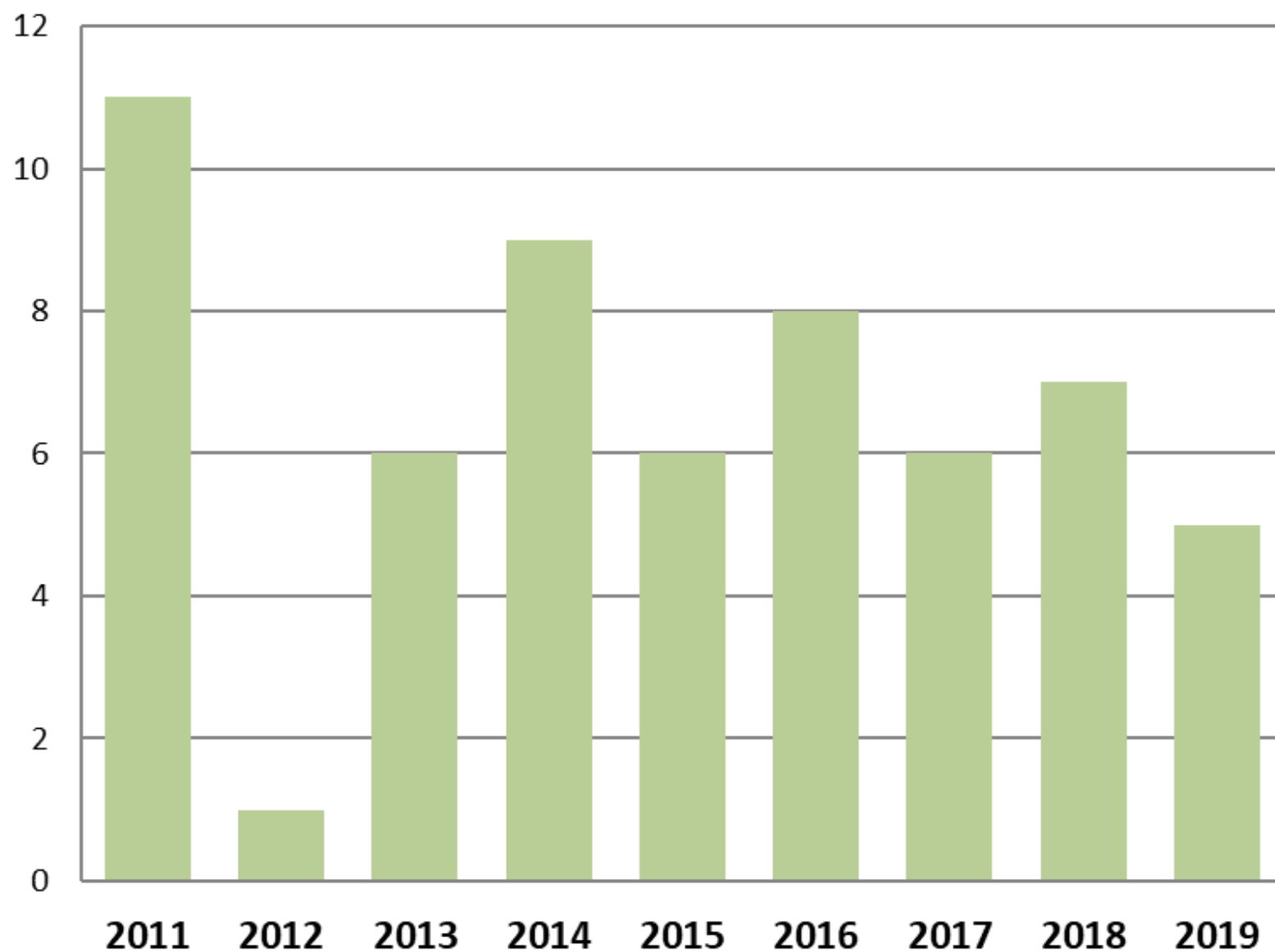
Grand Total = 16,860



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Other RITN Web Courses								192	120	267	217	163	342	23
AHLS										1	28	10	36	16
REAC/TS			38	26	46	45	26	84	77	71	58	42	20	23
Grandrounds			677	564	763	460	314	203	259	208	164	172	128	0
Basic Rad Tng	30	752	895	320	301	322	744	316	242	180	99	43	380	140
Outreach Presentation			317	139	112	1322	394	389	498	261	347	805	608	0
Biennial Conference		149		92		125		175		150		170		160

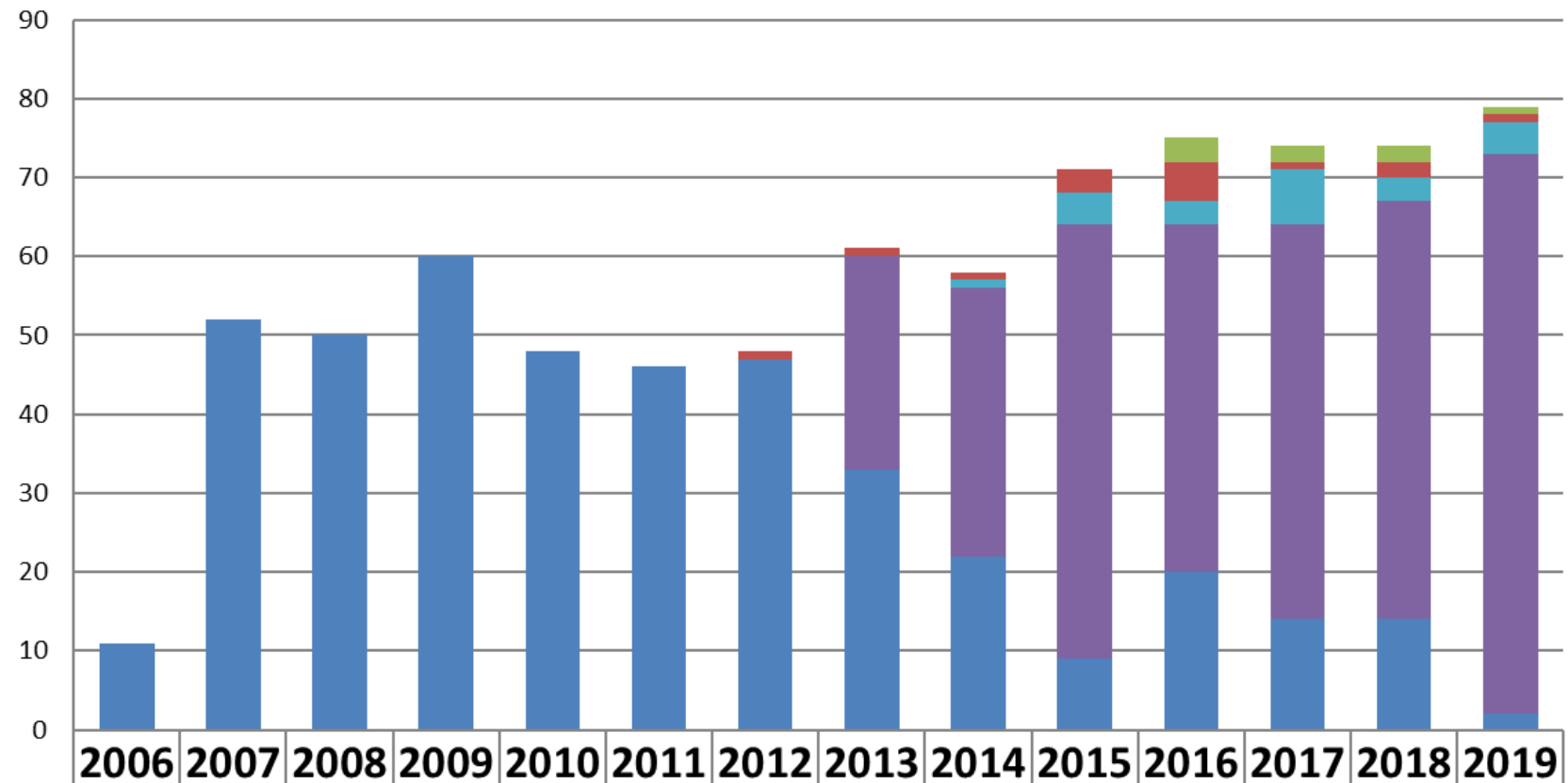
RITN Site Preparedness Assessments

Grand Total = 59



RITN Exercises by Year

Grand Total = 807



Functional											3	2	2	1
Fullscale							1	1	1	3	5	1	2	1
Regional Tabletop									1	4	3	7	3	4
Web-based Tabletop								27	34	55	44	50	53	71
Tabletop	11	52	50	60	48	46	47	33	22	9	20	14	14	2

2020 Projects

- Growth of RITN by up to 5 hospitals
- Beta test of 3 burn centers joining RITN in collaboration with American Burn Association
- Annual RITN exercise
- RITN Executive Committee strategic planning meeting
- Updated RITN site assessment checklist
- Completion/publication of Cytokine Triage Guidelines
- Presence at NHCPC, NACCHO and Joint Commission Emergency Preparedness Conferences
- Co-Sponsoring the Radiation Track at NACCHO Annual conference with REAC/TS

2020 Projects

- Medical response workshops with Chicago hospital coalition
- Short awareness videos to introduce topics and direct to additional information
- CDC Morbidity Tool project
- CDC Lab Assessment as sub-contractor to Gryphon Scientific
- Collaboration with HCS for teleconsultation system
- REAC/TS and AHLS in person training at RITN Hospitals

TASK SUMMARY TABLE:

	Task 1	Task 2	Task 3
	Administrative	Exercise	Education
TC	Yes	Yes	Yes

- Most significant change is addition of annual refresher training of Core RITN staff (Primary MD, Primary Coordinator, Secondary Coordinator and Emergency Manager):
 - Watch ‘What You Need to Know’ video
- Complete two (2) of the RITN Online courses of their choice.
 1. Introduction to RITN
 2. RITN Basic Radiation Training
 3. RITN Concept of Operations
 4. RITN Radiation Safety Communication
 5. Non-Medical Personnel Radiation Awareness
 6. Initial Care of Patients with Suspected ARS

- Dr. Matthew Metz from Ossium Health
- “Ossium Health is establishing a new, complementary source of life-saving, stem cells by recovering bone marrow from deceased donors. Unlocking this new source of bone marrow enables immunosuppression-free organ transplants, radiation injury treatment, blood cancer therapy and other novel uses. Our bank of cryopreserved bone marrow will offer on-demand responsiveness to patients in need of stem cell transplants and stem cell infusions. Ossium is a public benefit corporation with business offices in San Francisco, and facilities for research, CLIA-certified testing, and GMP manufacturing in Indianapolis. “



Today's Guest Speaker on the RITN Competency Assessment



- **Tener Veenema, PhD, MPH, MS, RN, FAAN**
- Professor, Johns Hopkins University School of Nursing
- Tener Veenema PhD, MPH, MS, RN, FAAN is an internationally recognized expert in disaster nursing and accomplished researcher, member of the American Red Cross National Scientific Advisory Board and an elected Fellow in the National Academies of Practice, American Academy of Nursing and Royal College of Surgeons Ireland. Dr. Veenema is editor of Disaster Nursing and Emergency Preparedness for Chemical, Biological and Radiological Terrorism, 4th Ed., the leading textbook in the field. She was awarded the Florence Nightingale Medal of Honor (IRC, 2013) the highest international award in Nursing, Fulbright U.S. Scholar Award (2017) and 2018 Distinguished Nurse Scholar-in-Residence at the National Academy of Medicine.