Aging with HIV: Surviving Another Pandemic in the Latino Community

Thursday, September 16 3 p.m. ET

Register at <u>bit.ly/HIVAgingDay</u>



Elena Rios, MD, MSPH, FACP President and CEO NHMA



Douglas Drevets, MD, DTM&H, FIDSA Chief of Infectious Diseases The University of Oklahoma College of Medicine



Chris Duncombe, AM, MD, PhD Chief Medical Officer International Association of Providers of AIDS Care



Ligia Peralta, M.D., F.A.A.P., F.S.A.H.M. President and CEO of Casa Program Director of HIV The Wall-Las Memorias Ruben Inc. Fellow, Massachusetts Institute of Technology



Erica Aeed TeKampe, MSW Care Directions Area Agency on Aging, Region One



Richard L. Zaldivar CEO & Founder Project













Elena Rios, MD, MSPH, FACP

President & CEO
National Hispanic Medical Association

Housekeeping

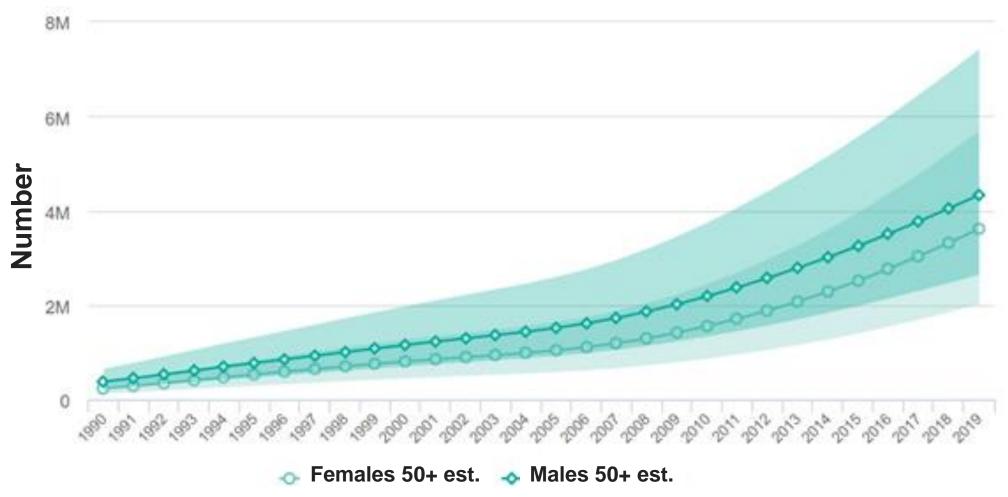
- Presentations to be followed by Q and A discussion
- Type questions in Q and A box
- Microphones will be muted
- Recording & slides will be available next week at www.NHMAmd.org



Douglas A. Drevets, MD, DTM&H, FIDSA Regents' Professor and Chief, Infectious Diseases OUHSC, Oklahoma City, OK



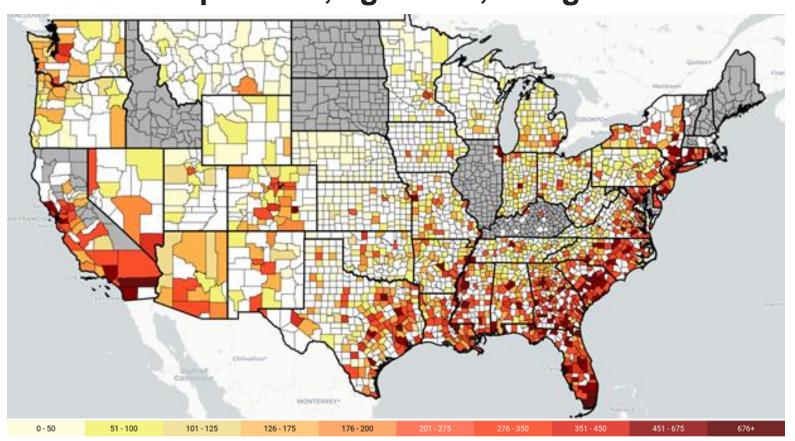
The greying of global HIV: Increasing numbers of people aged 50+ living with HIV





Demographics of aging and HIV USA, 2018

Rates of persons, aged 55+, living with HIV



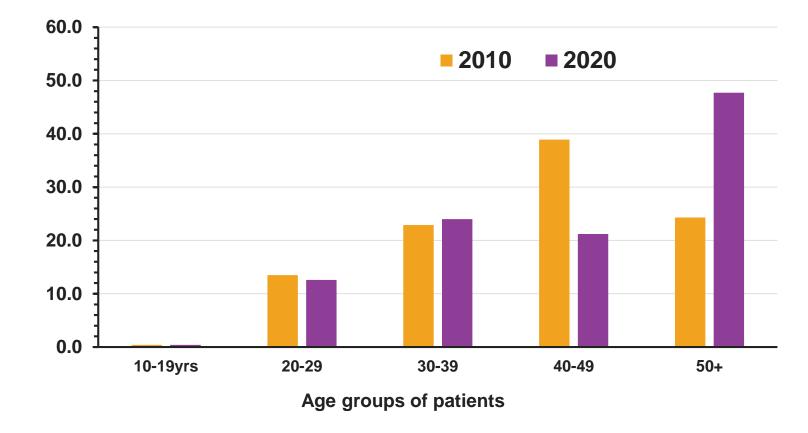
People living with HIV

- **1**,039,680 total
- 35.3% aged 55+



Changing demographics in our outpatient clinic

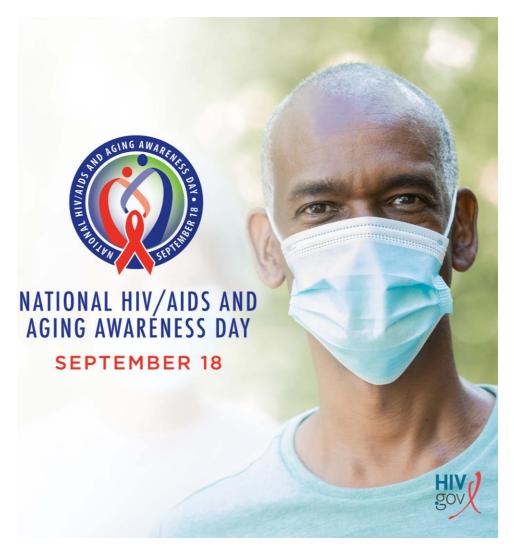
% Patients in age group



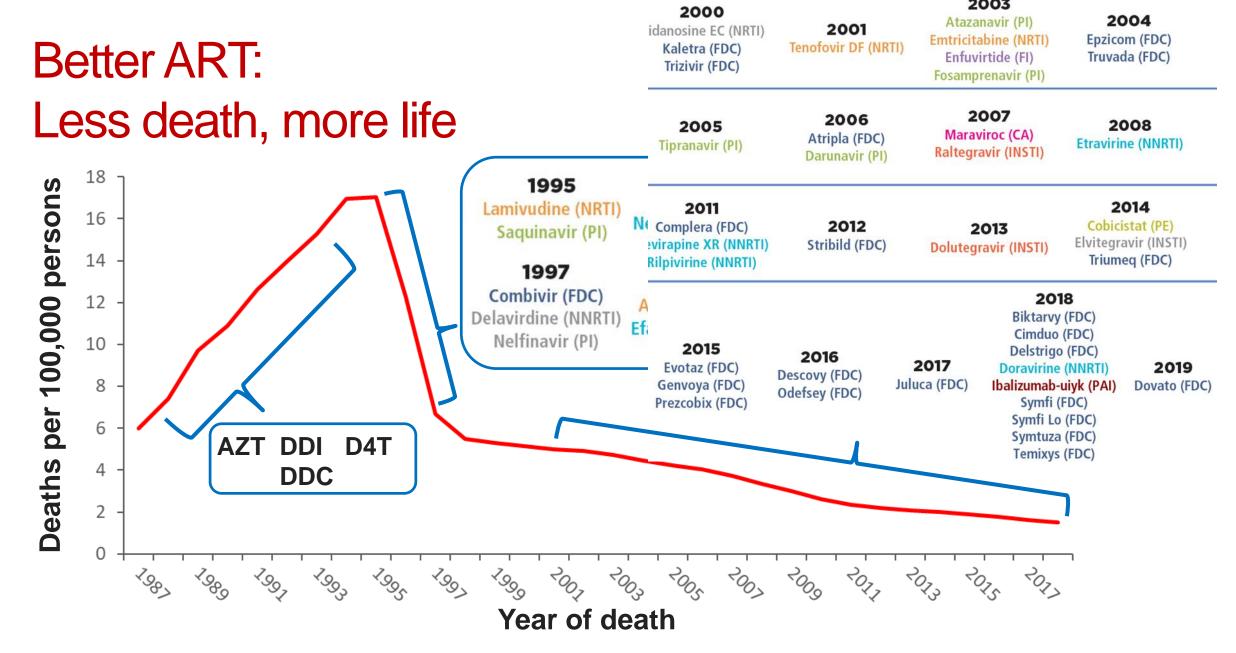


Aging with HIV: Key topics to cover

- Drivers of the demographic shift
- Obvious consequences of aging with HIV
- Not so obvious consequences of aging with HIV



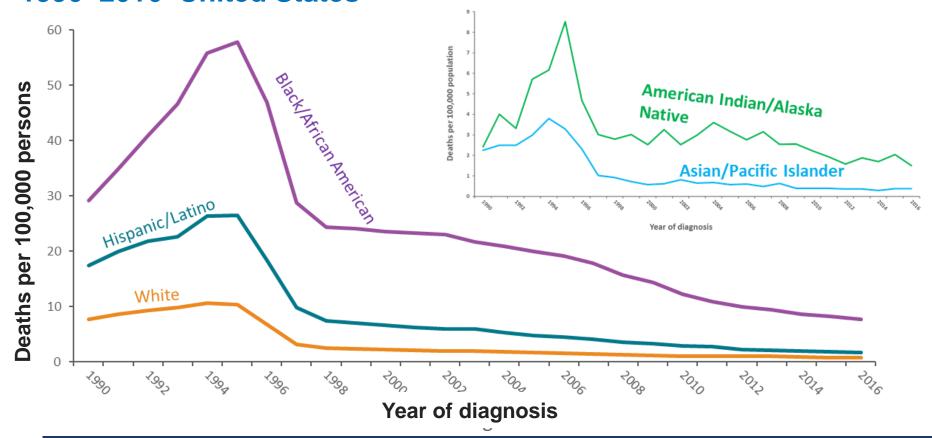






ART gains across race and ethnicity

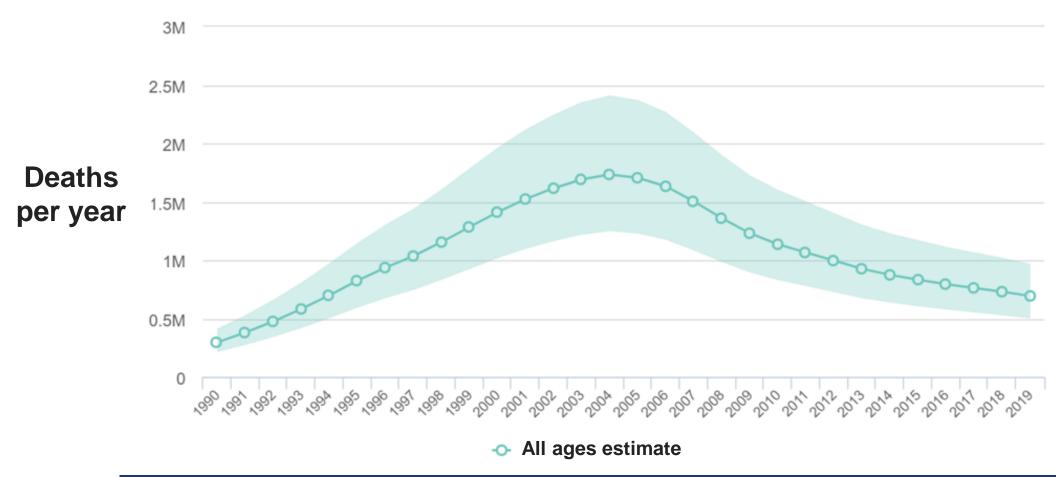
Trends in Age-Adjusted Annual HIV Death Rates by Race/Ethnicity, 1990–2016 United States







Global decrease in AIDS – related deaths



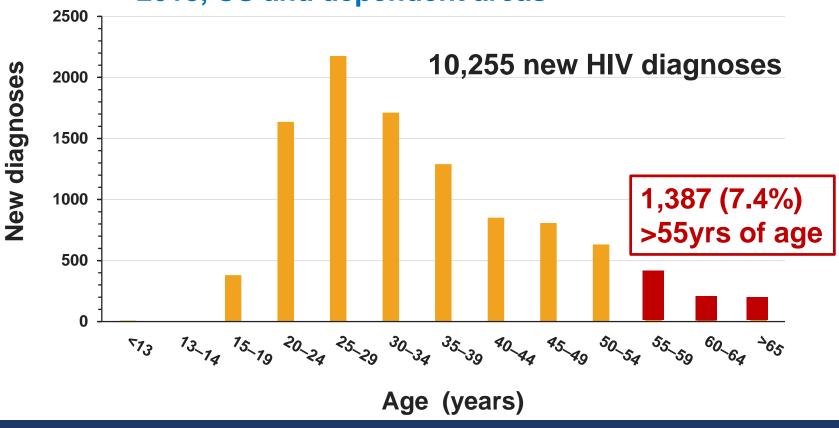


Aging with HIV: Newly diagnosed HIV infection in older individuals

US data 2018

- 37,864 new HIV diagnoses
- 10.1% aged 55+

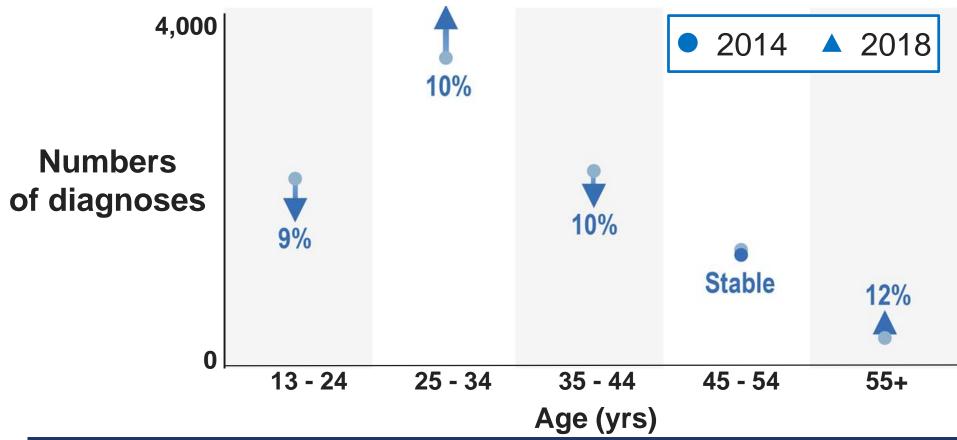






Increasing HIV diagnoses in the 55+ demographic

HIV diagnoses among Hispanics/Latinos, US and dependent areas





HIV+ over the age of 55: Advanced disease, but good response to ART

Proportion with a late HIV diagnosis

Aged 13-24: 9.1%

Aged 25-34: 16.0%

Aged 35-44: 25.7%

Aged 45-54: 33.2%

Aged 55+: 35.2%

Proportion virally suppressed

Aged 13-24: 60.3%

Aged 25-34: 60.8%

Aged 35-44: 62.4%

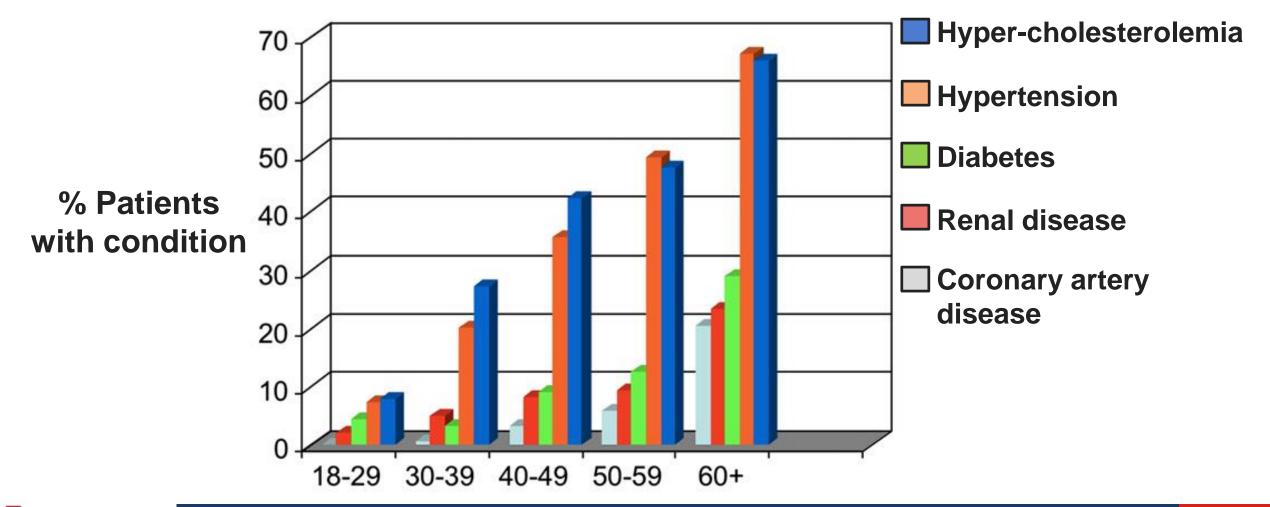
Aged 45-54: 66.2%

Aged 55+: 67.0%

- Need to be alert to testing older individuals
- Newly diagnosed older individuals should be reassured about their ability to respond to treatment



Obvious consequences of aging with HIV: Increased medical co-morbidities





Not so obvious consequences of aging with HIV: Increased risk of chronic disease onset

- National database of insurance enrollees aged 50 and above followed for at least one year between Jan. 2007 and Dec. 2016
- Evaluated the magnitude of association of HIV infection on developing 7 chronic conditions
 - Diabetes, HTN, stroke, cancers, lung disease, CVD, cognitive impairment.
- Controlled for:
 - Demographics, behavioral risk factors, chronic comorbidities
- Compared chronic disease risks between HIV+ and HIV- individuals



Association of HIV and elevated risk for chronic illness

2-year Interval	Diabetes	HTN	Stroke	Cancer	Lung Disease	Cardio- vascular Disease	Cognitive Impairmen t/Dementia

- HIV status is statistically significantly associated with higher rates for all chronic illnesses examined.
- Individuals diagnosed with HIV after age 50 are generally at higher risk of chronic disease onset compared with HIV- individuals, and even PLWHA who were diagnosed earlier.



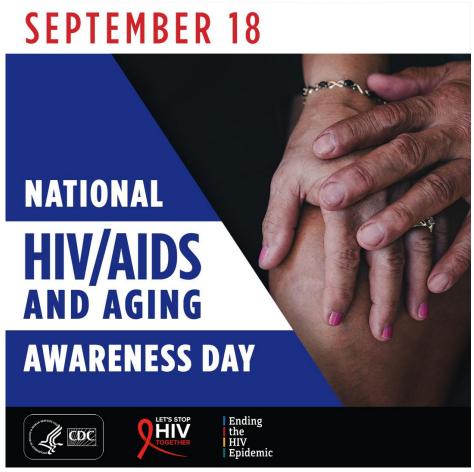
Association of HIV infection and cognitive impairment in older adults: A meta-analysis

		HIV+		HIV-									
Study	Events	Total	Events	Total						OR	9	95%-CI	Weight
Becker 2004	8	22	0	3		_	+	-		15.52	[0.05; 5	256.30]	0.4%
ludicello 2011	27	63	12	51			- 10	-		2.44	-	5.52]	7.1%
Morgan 2012	24	61	8	44			- 1	-		2.92	[1.16;	7.34]	6.5%
Rodriguez-Penney 2013	14	91	1	65			-	- 90		11.64	[1.49;	90.90]	2.5%
Sorlini 2014	8	20	6	21			-	_		1.67	[0.45;	6.13]	4.7%
Sheppard 2015	13	80	2	75			-	-		7.08	[1.54;	32.55]	3.8%
Ding 2017	93	172	36	172						4.45	[2.77;	7.15]	9.1%
Moore 2018	58	99	16	46			- 1	-		2.65	[1.28;	5.49]	7.6%
De Francesco 2019	113	637	34	276			22			1.53	[1.02;	2.32]	9.5%
Hiransuthikul 2019	202	340	63	102						0.91	[0.58;	1.43]	9.2%
Joska 2019	10	55	117	1095			-	ł .		1.86	[0.91;	3.78]	7.7%
Pasipanodya 2019	66	144	30	102			000 004			2.03	[1.19;	3.48]	8.8%
Saloner 2019	331	734	13	123				-		6.95	[3.84;	12.57]	8.4%
Sullivan 2019	42	110	17	77			-	+		2.18	[1.12;	4.23]	8.0%
Moore 2020	22	58	11	32			肀			1.17	[0.47;	2.88]	6.6%
Random effects model		2686		2284	_			_	_	2.44	[1.69;	3.53]	100.0%
Heterogeneity: $I^2 = 71\%$ [52]	2%; 83%],	$\tau^2 = 0$.3396, p	< 0.01	0.001	0.1	1	10	1000				

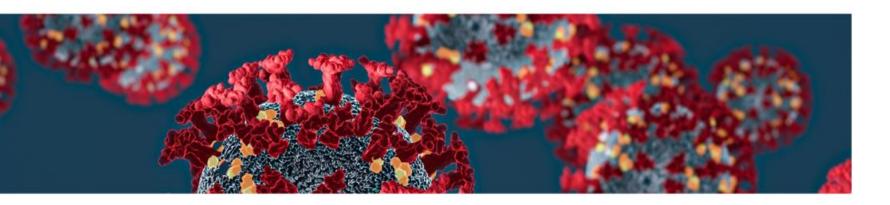


Conclusions: HIV/AIDS & aging

- Increasing numbers of older HIV+ patients
 - Better ART and longer lifespan
 - Newly diagnosed infections
- Older individuals have more medical comorbidities
- Patients diagnosed with HIV over 55yrs of age have more advanced disease, but respond well to ART
- HIV infection may accelerate development of common age-associated medical comorbidities including cognitive impairment



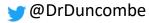


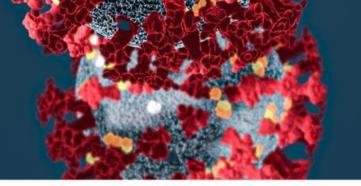


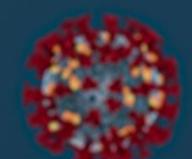
Intersection of Aging, HIV and the COVID Pandemic

Dr. Chris Duncombe, Chief Medical Officer

International Association of Providers of AIDS Care







COVID – 19 and HIV

- With the pandemic now in its second year
- Learned a great deal about how COVID-19 impacts
 - People living with HIV
 - Older people
- Multiple case studies of COVID-19 and HIV
 - diverse geographies
- Clear data on COVD-19 and aging
- Variable messages on COVID-19 and HIV



Predictors of COVID-19 severity: A literature review

Benjamin Gallo Marin ¹, Ghazal Aghagoli ¹, Katya Lavine ¹, Lanbo Yang ¹, Emily J Siff ², Silvia S Chiang ^{3 4}, Thais P Salazar-Mather ^{1 5}, Luba Dumenco ^{1 5}, Michael C Savaria ¹, Su N Aung ⁶, Timothy Flanigan ⁶, Ian C Michelow ³ ⁴

Age >55

Natural history of COVID-19 and therapeutic options

Philippe Gautret ^{1 2}, Matthieu Million ^{1 3}, Pierre-André Jarrot ⁴, Laurence Camoin-Jau ^{1 3 5}, Philippe Colson ^{1 3}, Florence Fenollar ^{1 2}, Marc Leone ^{1 3 6}, Bernard La Scola ^{1 3}, Christian Devaux 1 3 7, Jean Yves Gaubert 8, Jean-Louis Mege 1 3, Joana Vitte 1 3, Cléa Melenotte 1 3, Jean-Marc Rolain 1 3, Philippe Parola 1 2, Jean-Christophe Lagier 1 3, Philippe Brougui 1 3, Didier Raoult 1 3 Age >65

Risk factors for mortality in patients with Coronavirus disease 2019 (COVID-19) infection: a systematic review and meta-analysis of observational studies

Age >65

A systematic review and meta-analysis of published research data on COVID-19 infection fatality rates

Gideon Meyerowitz-Katz ¹, Lea Merone ²

Age >65

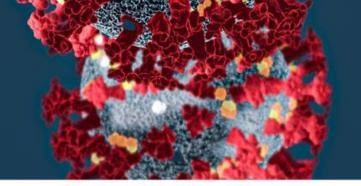
Incidence, clinical features, and outcomes of COVID-19 in Canada: impact of sex and age

Jacob O'Brien ¹, Kevin Y Du ¹, Chun Peng ² ³

Age >60

Impact of age on duration of viral RNA shedding in patients with COVID-19

Chenliang Zhou ¹, Tianfang Zhang ², Haotang Ren ², Shanshan Sun ², Xia Yu ², Jifang Sheng ², Yu Shi², Hong Zhao²



Impact of HIV – Clinical case studies

Clinical Case Series

Barcelona (1)

534 hospitalized patients with COVID-19

5 co-infected with HIV

Barcelona (2)

PLHIV Cohort (n=5683)

53 with COVID-19

Istanbul

Among a hospital cohort of 1,224 PLHIV

4 confirmed with COVID-19

Milan

Retrospective chart review of 47 HIV/COVID-19 co-infection

Germany

Retrospective chart

review of 33 HIV/COVID-19 co-infection **Just Published**

Atlanta

Detroit

Rhode Island

RISKOFCOVID-19 DEATH AMONG PEOPLE WITH HIV: A POPULATION COHORT ANALYSIS FROM THE WESTERN CAPE PROVINCE, SOUTH AFRICA

Western Cape Department of Health, South Africa

Corresponding authors

BULLETIN

Mary-Ann Davies (mary-ann.davies@westerncape.gov.za) and Andrew Boulle (andrew.boulle@ westerncape.gov.za)

Virtual Fast-Track Cities 2020 • September 9-10, 2020

VIRTUAL FAST-TRACK CITIES 2020

Western Cape Mortality Data

- 13 000 COVID-19 cases
- 435 deaths
- ~ Twice the risk of COVID-19 death
- PLHIV
 - Irrespective of viral suppression or ART use

Adjusted hazard ratio [aHR] for death in COVID-19 cases: 1.78; 95% confidence interval [CI]: 1.38; 2.29)

- This increased risk is modest
 - associated with other risk factors

<40 years 40-49 years 50-59 years 60-69 years ≥70 years cable diseases diabetes HbA1c 7 - 9% diabetes HbAlc ≥9% diabetes no HbAlo chronic kidney disease chronic pulmonary disease never tuberculosis previous tuberculosis negative

Virtual Fast-Track Cities 2020 • September 9-10, 2020

HIV and risk of COVID-19 death: a population cohort study from the Western Cape Province, South Africa. Western Cape Department of Health in collaboration with the National Institute for Communicable Diseases, South Africa, Mary-Ann Davies

VIRTUAL FAST-TRACK CITIES 2020

VIRTUAL FAST-TRACK CITIES 2020

NHS England Mortality Data

- OpenSAFELY is a new data analytics platform in England
 - Address COVID-19 related questions real-time
 - As country re-opens
 - 40% of the English population
- 17 3 million adults
- 27,480 (0.16%) had HIV

NHS England Mortality Data

- People living with HIV
 - Nearly three-fold higher risk of dying from COVID-19
 - Those without HIV
 - Adjusting for age and sex
- HR=2.90 95% CI 1.96-4.30





Elevated COVID-19 outcomes among persons living with diagnosed HIV infection in New York State: Results from a population-level match of HIV, COVID-19, and hospitalization databases

James M. Tesoriero, Carol-Ann E. Swain, Jennifer L. Pierce, Lucila Zamboni, Meng Wu, David R. Holtgrave, Charles J. Gonzalez, Tomoko Udo, Johanne E. Morne, Rachel Hart-Malloy, Deepa T. Rajulu, Shu-Yin John Leung, and Eli S. Rosenberg

Version 1. medRxiv. Preprint, 2020 Nov 6.

doi: 10.1101/2020.11.04.20226118: 10.1101/2020.11.04.20226118

- New York State (NYS) HIV surveillance registry
 - March June 2020
- Among 108,062 PLWH in NYS
 - 2,988 were diagnosed with COVID-19

HIV Status	Diagnosed with COVID-19	Hospital admission	Death		
Positive	No difference	2.61	2.55		
Negative	No difference	fold	fold		

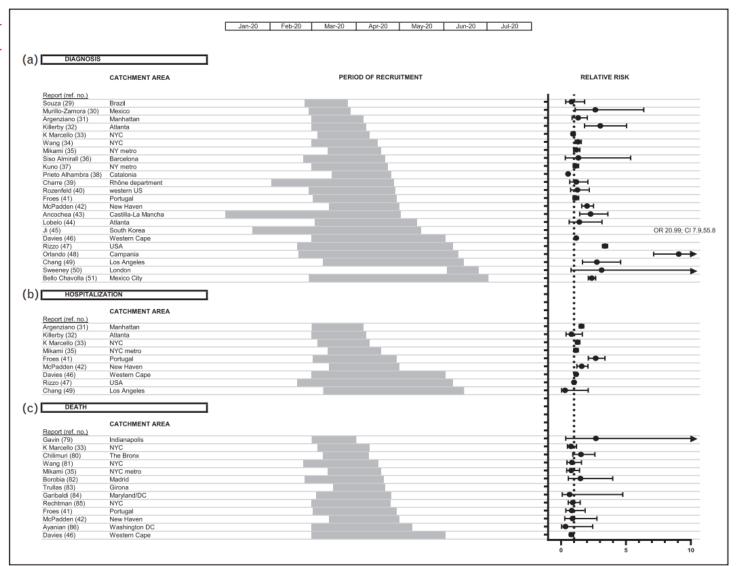


The first 6 months of HIV-SARS-CoV-2 coinfection: outcomes for 6947 individuals

Rowena Johnston

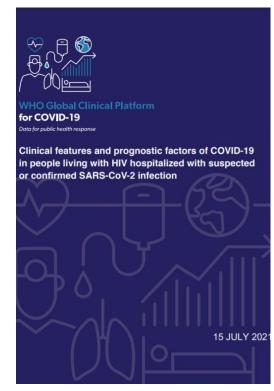
- Analysed relative risks (RR)
 - Diagnosis
 - Hospitalization
 - Death
- 31 published studies
- 6,947 PLWH

Taken together, comorbidities appear to play a larger role than HIV-specific variables in outcomes



WHO Global Clinical Platform Report

- 37 countries
- HIV infection is a significant risk factor
 - severe COVID-19 presentation at hospital admission
 - in-hospital mortality







Coronavirus Vaccination and HIV

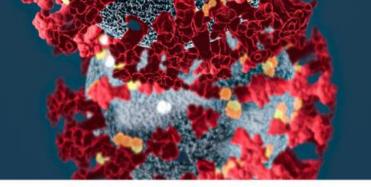
Have PLHIV been Enrolled in Coronavirus Vaccine Studies?

Pfizer BioNTech ¹	 196 PLHIV enrolled Not included in <i>NEJM</i> Per protocol safety results will be analyzed separately
Modern ²	 179 individuals with stable HIV disease were Included in the phase 3 trial Safety data on this group have not yet been separately reported
Oxford/AstraZeneca ³	 Recruited 160 people with HIV in the UK and South Africa Confirmed HIV infection, CD4 count > 350, undetectable viral load, taking ART Not included in the main data set published in <i>The Lancet</i>

^{1.} Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine Fernando P. Polack, Stephen J. Thomas, Nicholas Kitchin et.al December 31, 2020 N Engl J Med 2020; 383:2603-2615

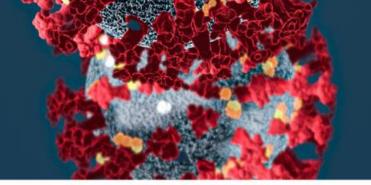
^{2.} Moderna COVID-19 Vaccine COVID-19 Real Time Learning Network. CDC and IDSA Last updated Jan 6 2021

^{3.} Have COVID-19 vaccines been tested in people with HIV? NAM AIDSMAP January 2021 https://www.aidsmap.com/about-hiv/have-covid-19-vaccines-been-tested-



COVID-19 vaccines in people with HIV

- Earlier this year two research groups
 - Reported no differences in immune responses
 - Oxford/AstraZeneca vaccine
 - Between people living with HIV and people without HIV
- More recent data from JHU
- Pfizer and Moderna COVID-19 vaccines
 - produce strong antibody responses
 - in people with HIV after two doses



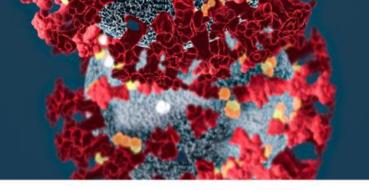
COVID-19 vaccines in people with HIV

Study 1

- 5 people with HIV received Pfizer
- 9 people received Moderna
- Median age of 62 years
- Antibody responses
 - Similar to HIV-negative people

Study 2

- 12 people with HIV
- 17 HIV-negative
- Pfizer vaccine
- Median age 52
- Antibody responses
 - Similar in then 2 groups



COVID-19 vaccines in people with HIV

- COVID -19 Vaccines
- Safe and effective
- Small studies
- People with HIV
- Including older age groups



A case, a Program and a Call to Action Ligia Peralta, MD, MBA, FAAP, FSAHM, AAHIVM

President Casa Ruben Foundation, Massachusetts Institute of Technology Sloan Fellow in Innovation and Global Leadership

NHMA September 16, 2021

A case



Disproportionate Impact of COVID-19 and HIV on Racial and Ethnic Minority Communities

The COVID-19 Pandemic: A thread to public health gains

System:

Disruption of HIV Services and Focus on the Pandemic -COVID-19

Missed Opportunity for HIV testing and prevention

Missed opportunity for HIV Rapid ART (Reducing morbidity, mortality, transmission)

Missed opportunity for linkage to comprehensive primary care

Disparities in Special Populations-Immigrants

This case illustrates:

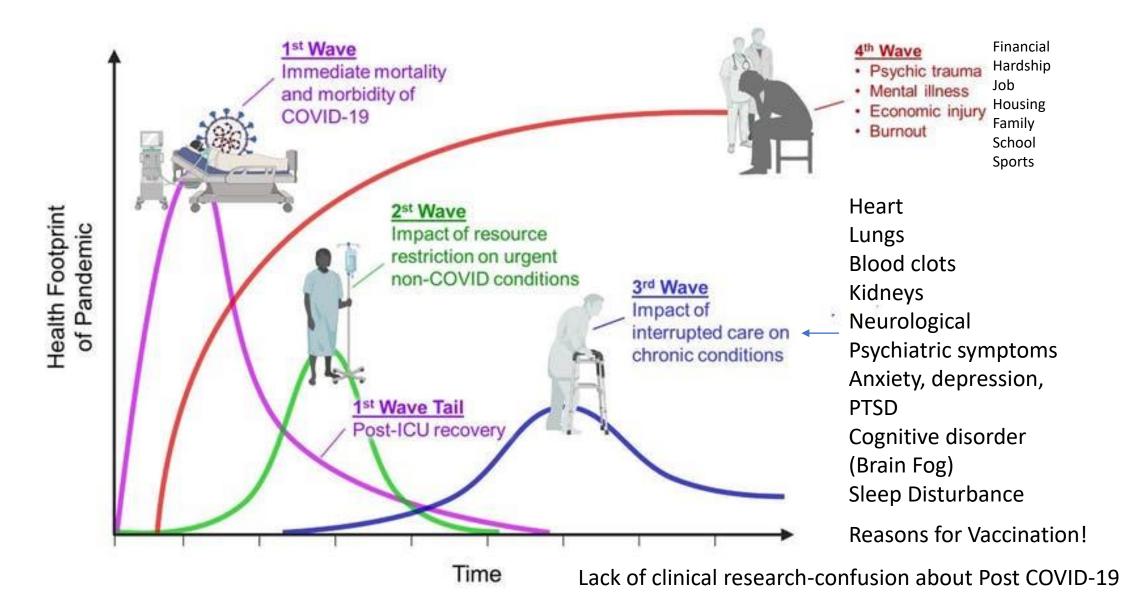
- Disease burden
- Fragmented care
- Trouble paying for medical care
- Job loss

Disparities in Special Populations

Federal Policies and Immigration Status

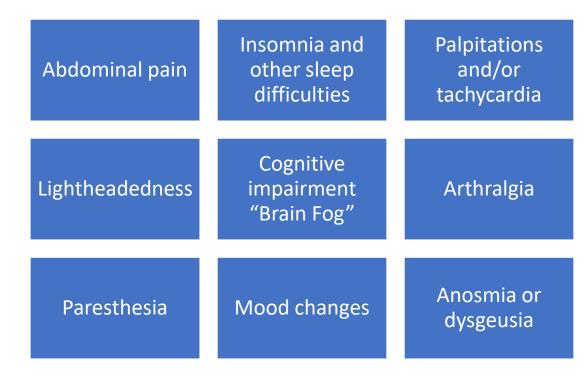
- Barriers to federally funded benefit program
- Lower utilization of Care
- Lack of affordable care

Post COVID-19 Conditions –3rd-4th waves



Post COVID Conditions (Long Covid)

- Dyspnea or increased respiratory effort
- Fatigue
- Post-exertional malaise and/or poor endurance
- · Impaired daily function and mobility
- Cough
- Chest pain
- Headache
- Fever
- Diarrhea
- Pain
- Myalgia
- Rash (e.g. urticaria)
- · Menstrual Cycle irregularities
- * Post-exertional malaise (PEM) is the worsening of symptoms following even minor physical or mental exertion, with symptoms typically worsening 12 to 48 hours after activity and lasting for days or even weeks.



Worsen of Mental Health Problems for PLHIV

 The disruption in the continuity of care for PLHIV, increased social isolation and the psychological stress of living through a pandemic are all factors that could worsen the mental health problems that PLHIV are at a higher risk of experiencing.

A Promising Solution. Ending the HIV Epidemic in the US (EHE)

EHE Jurisdiction plan to:

Increase testing and self testing, targeted testing in non health care settings

Expand linkage to care and treatment initiation <7 days

Expand PrEP linkage programs,

or expand Syringe
Services Programs
(SSPs) with innovative
delivery options
(mobile)

Address the syndemic of HIV/STI/Viral hepatitis

Address the opioid crisis

Improve HIV prevention education

HHS Minority HIV/AIDS Funds. CDC Awards \$12M for Comprehensive EHE Plans 2019. PACHA Meeting Aug 3-4, 2021

A call to action

Get involved in the Ending the HIV Epidemic in the US (EHE) Lessons from the COVID-19 Pandemic may help improve equity

Facilitate Access to care and identify key HIV prevention innovations and adaptions that could be scaled-up



Q and A



How to contact NHMA & NHHF

- NHMA <u>www.nhmamd.org</u>
- NHHF <u>www.nhmafoundation.org</u>
- NHMA 25th Annual Hispanic Health Conference –WDC, March 2022 #NHMA2022
- Join NHMA as a Member
- NHHF Giving Campaign tax deductible
- NHMA #Vaccinate4All Campaign Become a champion at nhmamd.org/vaccinate4all
 - supported by CDC, J&J, BIO
 - Individual Training through Webinars, Social Media, NHMA Fellows
 - Organizational Training HHPLN, Medical Societies, Latino Health Advocacy Organizations,
 Conferences, Newsletters, Websites, Events
 - Development of COVID-19 Resource Hub (HispanicHealth.info)
 - English and Spanish info reports, videos, toolkits, and links to CDC
 - Sign-up at www.NHMAmd.org





COVID-19 BRIEFING SESSION 12: IMPACT ON PREGNANT WOMEN, MOTHERS, AND CHILDREN



Claudia Zamora
Founder and CEO
Zamora Consulting Group

Wednesday, September 29 at 7:00 p.m. ET

Registration: bit.ly/NHMACOVIDBriefing



Johnson Johnson









Luis Gomez MD, MScE Maternal-Fetal Medicine Specialist Perinatal Associates of Northern Virginia, Inova Health System





Ana Lia Graciano MD, FAAP, FCCM Professor of Pediatrics Division of Pediatric Critical Care Medicine University of Maryland School of Medicine



