Aging with HIV: Surviving Another Pandemic in the Latino Community

Thursday, September 16
3 p.m. ET
Register at bit.ly/HIVAgingDay

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 Ruben Inc.
Fellow, Massachusetts Institute of Technology

Erica Aeed TeKampe, MSW
Program Director of HIV Care Directions
Area Agency on Aging, Region One

Richard L. Zaldivar
CEO & Founder
The Wall-Las Memorias Project
Welcome

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+

https://aidsvu.org/local-data/united-states/
Changing demographics in our outpatient clinic

% Patients in age group

Age groups of patients

2010  2020

Data courtesy of M. Salvaggio
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
Better ART:
Less death, more life

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

https://aidsinfo.unaids.org/
Aging with HIV:
 Newly diagnosed HIV infection in older individuals

US data 2018
- 37,864 new HIV diagnoses
- 10.1% aged 55+

**Diagnoses of HIV infection in Hispanic/Latinos 2018, US and dependent areas**

![Chart showing new diagnoses by age group with 10,255 new HIV diagnoses and 1,387 (7.4%) >55yrs of age]
Increasing HIV diagnoses in the 55+ demographic

HIV diagnoses among Hispanics/Latinos, US and dependent areas

Numbers of diagnoses

- 13 - 24: 9%
- 25 - 34: 10%
- 35 - 44: 10%
- 45 - 54: Stable
- 55+: 12%

HIV diagnoses among Hispanics/Latinos, US and dependent areas

https://www.cdc.gov/hiv/group/racialethnic/hispaniclatinos/index.html
HIV+ over the age of 55: Advanced disease, but good response to ART

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

**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%

https://aidsvu.org/local-data/united-states/
Obvious consequences of aging with HIV: Increased medical co-morbidities

- Hypercholesterolemia
- Hypertension
- Diabetes
- Renal disease
- Coronary artery disease

Vance et al., JANAC Vol. 22, No. 1, January/February 2011
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

<table>
<thead>
<tr>
<th>2-year Interval</th>
<th>Diabetes</th>
<th>HTN</th>
<th>Stroke</th>
<th>Cancer</th>
<th>Lung Disease</th>
<th>Cardio-vascular Disease</th>
<th>Cognitive Impairment/Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV diagnosis &lt; 50 yrs</td>
<td>0.88</td>
<td>0.90</td>
<td>1.02</td>
<td>1.17</td>
<td>1.04</td>
<td>0.94</td>
<td>1.18</td>
</tr>
<tr>
<td>HIV diagnosis &gt; 50 yrs</td>
<td>2.92</td>
<td>2.10</td>
<td>2.02</td>
<td>2.30</td>
<td>2.04</td>
<td>2.51</td>
<td>2.97</td>
</tr>
</tbody>
</table>

- 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

<table>
<thead>
<tr>
<th>Study</th>
<th>HIV+ Events</th>
<th>HIV+ Total</th>
<th>HIV- Events</th>
<th>HIV- Total</th>
<th>OR</th>
<th>95% CI</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Becker 2004</td>
<td>8</td>
<td>22</td>
<td>0</td>
<td>3</td>
<td>15.52</td>
<td>[0.05; 5256.30]</td>
<td>0.4%</td>
</tr>
<tr>
<td>Ludicello 2011</td>
<td>27</td>
<td>63</td>
<td>12</td>
<td>51</td>
<td>2.44</td>
<td>[1.08; 5.52]</td>
<td>7.1%</td>
</tr>
<tr>
<td>Morgan 2012</td>
<td>24</td>
<td>61</td>
<td>8</td>
<td>44</td>
<td>2.92</td>
<td>[1.16; 7.34]</td>
<td>6.5%</td>
</tr>
<tr>
<td>Rodriguez-Penney 2013</td>
<td>14</td>
<td>91</td>
<td>1</td>
<td>65</td>
<td>11.64</td>
<td>[1.49; 90.90]</td>
<td>2.5%</td>
</tr>
<tr>
<td>Sorlini 2014</td>
<td>8</td>
<td>20</td>
<td>6</td>
<td>21</td>
<td>1.67</td>
<td>[0.45; 6.13]</td>
<td>4.7%</td>
</tr>
<tr>
<td>Sheppard 2015</td>
<td>13</td>
<td>80</td>
<td>2</td>
<td>75</td>
<td>7.08</td>
<td>[1.54; 32.55]</td>
<td>3.8%</td>
</tr>
<tr>
<td>Ding 2017</td>
<td>93</td>
<td>172</td>
<td>36</td>
<td>172</td>
<td>4.45</td>
<td>[2.77; 7.15]</td>
<td>9.1%</td>
</tr>
<tr>
<td>Moore 2018</td>
<td>58</td>
<td>99</td>
<td>16</td>
<td>46</td>
<td>2.65</td>
<td>[1.28; 5.49]</td>
<td>7.6%</td>
</tr>
<tr>
<td>De Francesco 2019</td>
<td>113</td>
<td>637</td>
<td>34</td>
<td>276</td>
<td>1.53</td>
<td>[1.02; 2.32]</td>
<td>9.5%</td>
</tr>
<tr>
<td>Hiransuthikul 2019</td>
<td>202</td>
<td>340</td>
<td>63</td>
<td>102</td>
<td>0.91</td>
<td>[0.58; 1.43]</td>
<td>9.2%</td>
</tr>
<tr>
<td>Joska 2019</td>
<td>10</td>
<td>55</td>
<td>117</td>
<td>1095</td>
<td>1.86</td>
<td>[0.91; 3.78]</td>
<td>7.7%</td>
</tr>
<tr>
<td>Pasipanodya 2019</td>
<td>66</td>
<td>144</td>
<td>30</td>
<td>102</td>
<td>2.03</td>
<td>[1.19; 3.48]</td>
<td>8.8%</td>
</tr>
<tr>
<td>Saloner 2019</td>
<td>331</td>
<td>734</td>
<td>13</td>
<td>123</td>
<td>6.95</td>
<td>[3.84; 12.57]</td>
<td>8.4%</td>
</tr>
<tr>
<td>Sullivan 2019</td>
<td>42</td>
<td>110</td>
<td>17</td>
<td>77</td>
<td>2.18</td>
<td>[1.12; 4.23]</td>
<td>8.0%</td>
</tr>
<tr>
<td>Moore 2020</td>
<td>22</td>
<td>58</td>
<td>11</td>
<td>32</td>
<td>1.17</td>
<td>[0.47; 2.88]</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

**Random effects model**

2686  2284

Heterogeneity: $I^2 = 71\% [52\%; 83\%]$, $\tau^2 = 0.3396$, $p < 0.01$

Conclusions: HIV/AIDS & aging

- Increasing numbers of older HIV+ patients
  - Better ART and longer lifespan
  - Newly diagnosed infections
- Older individuals have more medical co-morbidities
- 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 co-morbidities including cognitive impairment
Intersection of Aging, HIV and the COVID Pandemic

Dr. Chris Duncombe, Chief Medical Officer
International Association of Providers of AIDS Care

@DrDuncombe
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 COVID-19 and aging
Variable messages on COVID-19 and HIV
Impact of age

Predictors of COVID-19 severity: A literature review
Benjamin Gallo Marin, Ghazal Aghagoli, Katya Lavine, Lanbo Yang, Emily J Siff, Silvia S Chiang, Thais P Salazar-Mather, Luba Dumenco, Michael C Savaria, Su N Aung, Timothy Flanigan, Ian C Michelow

Natural history of COVID-19 and therapeutic options
Philippe Gautret, Matthieu Million, Pierre-André Jarrot, Laurence Camoin-Jau, Philippe Colson, Florence Fenollar, Marc Leone, Bernard La Scola, Christian Devaux, Jean Yves Gaubert, Jean-Louis Mege, Joana Vitte, Cléa Melenotte, Jean-Marc Rolain, Philippe Parola, Jean-Christophe Lagier, Philippe Brouqui, Didier Raoult

Risk factors for mortality in patients with Coronavirus disease 2019 (COVID-19) infection: a systematic review and meta-analysis of observational studies
Mohammad Parohan, Sajad Yaghoubi, Asal Seraji, Mohammad Hassan Javanbakht, Payam Serraf, Mahmoud Djafari

A systematic review and meta-analysis of published research data on COVID-19 infection fatality rates
Gideon Meyerowitz-Katz, Lea Merone

Incidence, clinical features, and outcomes of COVID-19 in Canada: impact of sex and age
Jacob O’Brien, Kevin Y Du, Chun Peng

Impact of age on duration of viral RNA shedding in patients with COVID-19
Chenliang Zhou, Tianfang Zhang, Haotang Ren, Shanshan Sun, Xia Yu, Jifang Sheng, Yu Shi, Hong Zhao

23 days ≤ , 34 days > 70
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
Western Cape Mortality Data

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

Adjusting hazard ratio [aHR] for death in COVID-19 cases: 1.76, 95% confidence interval (CI): 1.38, 2.29

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

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

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

<table>
<thead>
<tr>
<th>HIV Status</th>
<th>Diagnosed with COVID-19</th>
<th>Hospital admission</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>No difference</td>
<td>2.61 fold</td>
<td>2.55</td>
</tr>
<tr>
<td>Negative</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• 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?

<table>
<thead>
<tr>
<th>Vaccine Manufacturer</th>
<th>Details</th>
</tr>
</thead>
</table>
| **Pfizer BioNTech** ¹ | • **196** PLHIV enrolled  
• Not included in *NEJM*  
• 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 *The Lancet* |

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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
Impact of COVID-19 Pandemic on HIV Screening, Treatment and Care:
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

USAIDS Report 2021
This case illustrates:

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

Pew Research Center July 2021, CDC June 2021
Social Determinants of Health unique to Special Populations
Federal Policies and Immigration Status

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

Wilson, F JAMA 2021; IOM
Post COVID-19 Conditions – 3rd-4th waves

Heart
Lungs
Blood clots
Kidneys
Neurological
Psychiatric symptoms
Anxiety, depression,
PTSD
Cognitive disorder
(Brain Fog)
Sleep Disturbance
Reasons for Vaccination!

Lack of clinical research-confusion about Post COVID-19
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.*

CDC Post COVID Conditions Guidelines 2021
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-healthcare 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

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 adoptions that could be scaled-up
Innovation

- Prevention Innovation: Screening, Vaccinations and Linkages to Care for Ethnic Minority Communities
- Casa Ruben Foundation collaboration with Vaccine Hunters and State/County services
- Covering the gaps in the community by Expanding testing, immunizations, linkages to care
Q and A
How to contact NHMA & NHHF

- NHMA - www.nhmamd.org
- NHHF - www.nhmafoundation.org
- 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

@NHMAmd @NHMAmd.org
COVID-19 BRIEFING SESSION 12: IMPACT ON PREGNANT WOMEN, MOTHERS, AND CHILDREN

Speakers:

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

Sergio Rimola MD, FACOG
Attending Physician Ob/Gyn
Department
Inova Fairfax Hospital

Moderator
Claudia Zamora
Founder and CEO
Zamora Consulting Group

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

Registration:
bit.ly/NHMACOVIDBriefing