



The Future of HIV Care in Nevada

TRUDY LARSON, MD

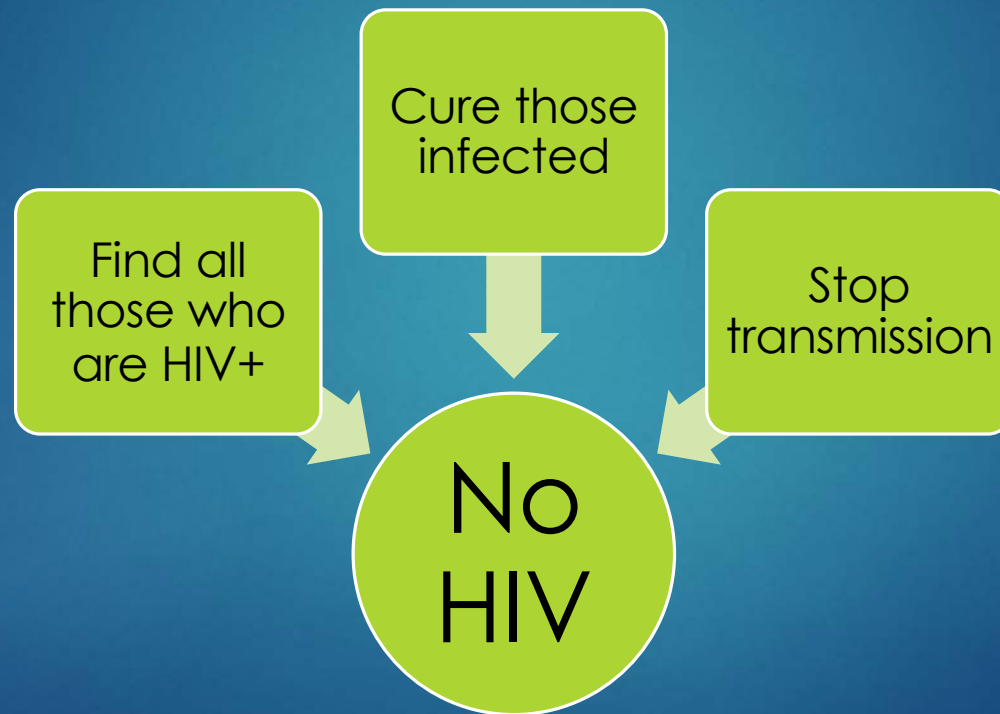
PROFESSOR AND DEAN, SCHOOL OF COMMUNITY HEALTH SCIENCES

UNIVERSITY OF NEVADA, RENO

Learning Objectives

- ▶ Identify the similarities and differences between the early events of the HIV/AIDS epidemic and current challenges to “Get to Zero”
- ▶ List the barriers that impede progress to reduce HIV/AIDS infections in Nevada
- ▶ Outline future policies and practice changes that must be implemented in order to “Get to Zero”

What is the FUTURE we desire for HIV/AIDS?



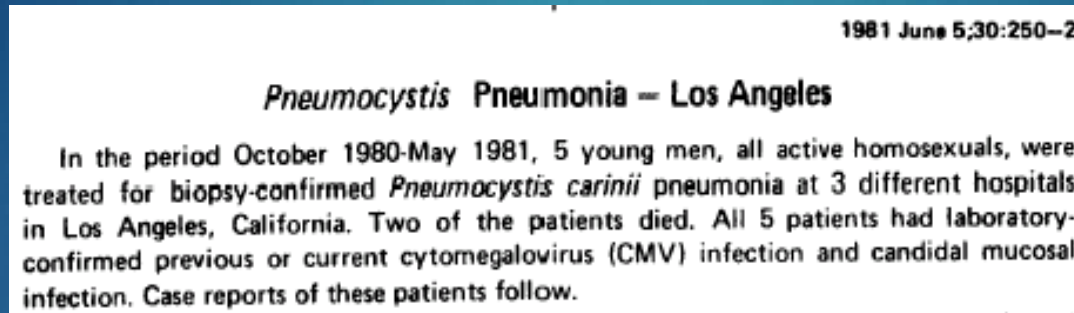
How do we get to a future goal of “Getting to Zero”?

- It will require teamwork
- It will require persistence
- It will require compassion
- It will require a common voice
- It will require medical advances
- It will require adherence
- It will require discovery
- It will require acceptance
- It will require action
- It will require access
- It will require commitment
- It will require resources and a
MAJOR CULTURE CHANGE



Initial Reports

- ▶ June 5, 1981: 5 cases of PCP in gay men from UCLA (MMWR)



- ▶ July 3, 1981: 26 additional cases
- ▶ Dec 10, 1981: 3 NEJM papers describe cases



Gottlieb MS NEJM 2001;344:1788-91

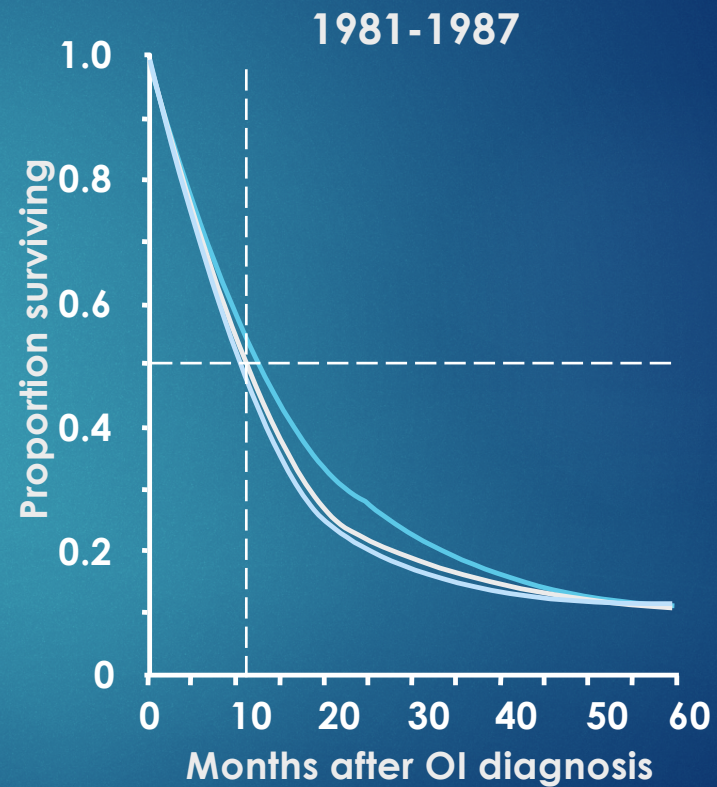
Other Early Developments

- ▶ 1982:
 - ▶ Term “AIDS” coined, First cases in women reported
 - ▶ First transfusion and vertically transmitted cases reported
 - ▶ **Transmission patterns defined !!**
- ▶ 1983:
 - ▶ Isolation of a retrovirus from a patient with AIDS by Montagnier's group in France
- ▶ 1984:
 - ▶ Detection of HTLV-III in pts with and at risk for AIDS (Gallo) in US



Other Early Developments □2

- ▶ 1985:
 - ▶ FDA approves first commercial HIV antibody test
- ▶ 1986:
 - ▶ NIH establishes the AIDS Clinical Trials Group
- ▶ 1987:
 - ▶ AZT = first antiretroviral approved by FDA



Source : National AIDS case surveillance data, CDC

Social Issues

- ▶ Diagnosed cases of AIDS in marginalized populations
 - ▶ Gay men
 - ▶ IV drug abusers
 - ▶ People of color
- ▶ Grouped in areas with low socioeconomic support in big cities and in poor areas in the south
- ▶ Stigma and discrimination by all facets of society reduced access to care
 - ▶ Medical personnel afraid of transmission
 - ▶ Lost jobs, kicked out of homes, rejected by families

What happened?

- ▶ HIV/AIDS spread
 - ▶ Perinatal transmission
 - ▶ Sexual and drug sharing transmission
- ▶ Prevention messages censored (don't say condoms or mention sexual intercourse)
- ▶ Federal response extremely slow and "blame based"
- ▶ Medical providers frustrated because every patient died
 - ▶ Could only treat opportunistic infections
 - ▶ Learned about hospice care (AIDS hospice hospitals and wards developed)



Early Antiretroviral Therapy □ 1

- ▶ 1991-92:
 - ▶ ddI, ddC approved
 - ▶ Sequential monotherapy
 - ▶ **Ryan White Care Act passed**
 - ▶ **Covered care, medications and education**
- ▶ 1993:
 - ▶ Concorde: no difference in death rates over 3 yrs with early vs. deferred AZT



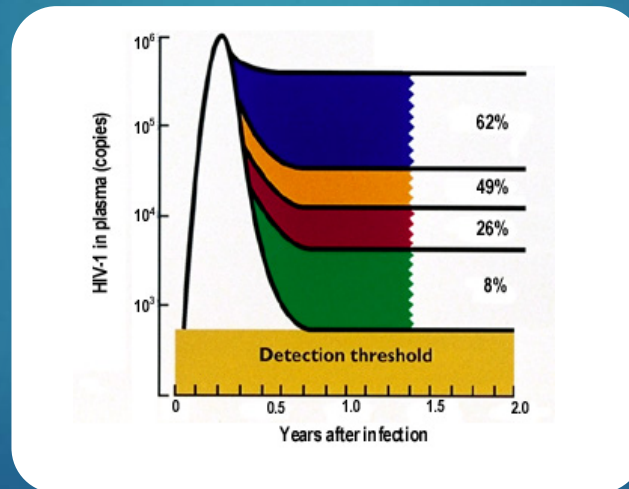


Early Antiretroviral Therapy Success

- ▶ 1994:
 - ▶ ACTG 076: AZT reduces mother-to-child transmission of HIV
 - ▶ Pregnant HIV infected women given AZT during pregnancy reduced the transmission of HIV from them to their infants by 66% (from 22% to 8.5%)
 - ▶ Intervention with AZT (plus other ARTs now) in pregnancy reduced perinatal transmission to 0 in Washoe County (1994-2018)

The New Treatment Era

- ▶ 1995-96:
 - ▶ HIV viral load testing became available
 - ▶ Clinicians could directly assess the effect of antiretrovirals (ARTs) on viral replication (HIV RNA)



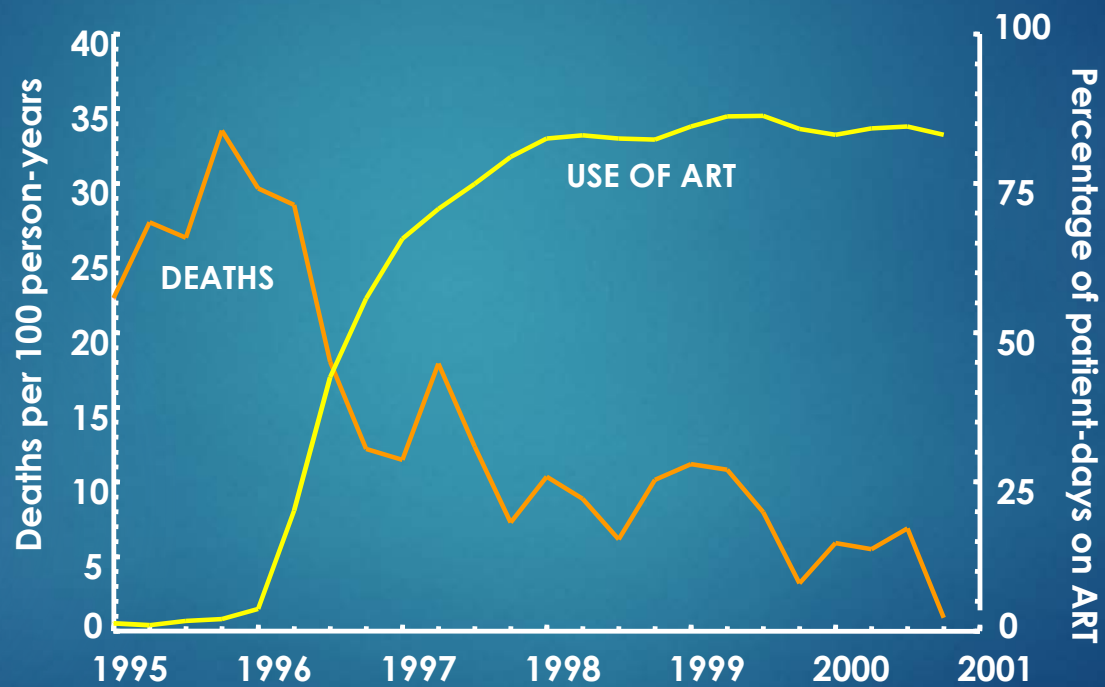
- ▶ First protease inhibitors approved by FDA

Advocacy

- ▶ Gay men organized and stormed the NIH offices
 - ▶ Pressured NIH director to look at “fast tracking” of HIV medications
- ▶ ACT UP became politically active
- ▶ Hard to find advocates from populations impacted with high rates of poverty

AIDS Mortality Rates: 1996-2001

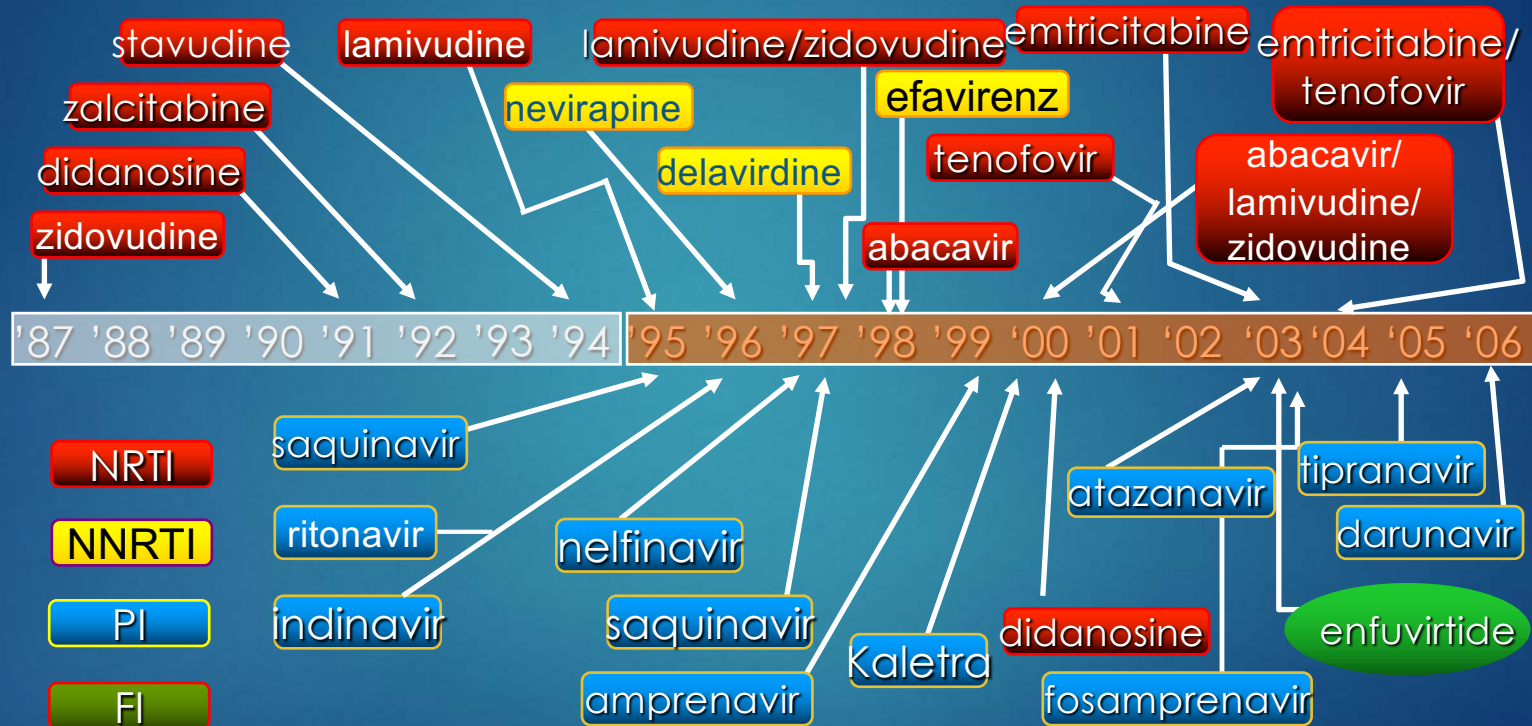
Mortality vs. ART utilization



Palella F et al. 8th CROI 2001; abstract 268b.

HIV Medication Timeline

- ▶ Between '87 and '95 (9 years), 4 antiretrovirals were launched.
- ▶ Since '95 (11 years), 25 new products introduced!!





How does that history inform our Future?

- ▶ Major medical advances do HAPPEN
- ▶ Resources for social support, medication support, and access HAPPEN
- ▶ Caregivers with compassion and no fear HAPPEN
- ▶ Teamwork and clinical teams HAPPEN
- ▶ Wide spread testing and diagnosis of all HIV+ people has NOT HAPPENED
- ▶ Universal linkage and retention in care has NOT HAPPENED
- ▶ Adherence is better but perfect adherence has NOT HAPPENED
- ▶ Getting rid of stigma and discrimination has NOT HAPPENED

NATIONAL HIV/AIDS STRATEGY: UPDATED TO 2020

5 MAJOR CHANGES SINCE 2010

Since the first National HIV/AIDS Strategy was released in 2010, major advances have transformed how we respond to HIV, provided new tools to prevent new infections, and improved access to care. With a vision for the next five years, our National HIV/AIDS Strategy has been updated to leverage these achievements and look ahead to 2020.

Our prevention toolkit has expanded.



Pre-Exposure Prophylaxis (PrEP)

A daily pill to prevent HIV.

When taken consistently, can reduce the risk of HIV by up to



Treatment as Prevention

The risk of HIV is reduced by



in those who have achieved viral suppression (they have very low levels of HIV in the body).

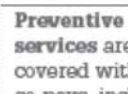
The Affordable Care Act has transformed health care access.



Millions more individuals now have **affordable, quality health coverage.**



There is **no denial of coverage for pre-existing conditions, like HIV.**



Preventive services are covered without co-pays, including HIV testing.



Protections against sex or disability discrimination in health care.

HIV testing and treatment are recommended.

Federal Guidelines now recommend **routine HIV screening** for people aged

15 TO 65



CDC updated recommendations for HIV testing to help labs detect infections earlier.

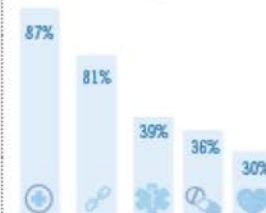
Federal HIV treatment guidelines now recommend **antiretroviral therapy for all HIV-infected individuals.**



Improving HIV Care Continuum outcomes is a priority.

President Obama's **HIV Care Continuum Initiative** directed Federal departments to increase the number of individuals who are:

- diagnosed with HIV
- linked to HIV care
- retained in HIV care
- prescribed HIV treatment
- virally suppressed (having very low levels of HIV in their body).



Research is unlocking new knowledge and tools.

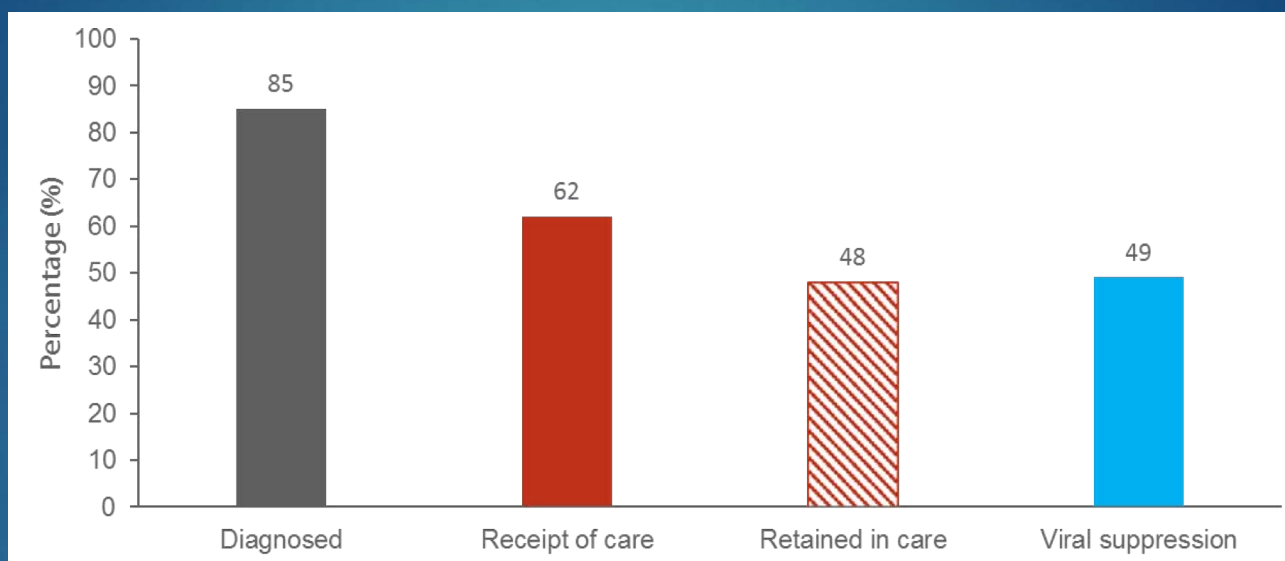
- Evidence that **starting HIV treatment early** lowers the risk of developing AIDS or other serious illnesses
- New **HIV testing technologies**, including new diagnostic tests
- New **HIV medications** with fewer side effects, less frequent dosing, and a lower risk of drug resistance
- Continued investigation** of long-acting drugs for HIV treatment and prevention, an HIV vaccine, and, ultimately, a cure.



Learn more about the National HIV/AIDS Strategy: Updated to 2020 at [AIDS.gov/2020](https://aids.gov/2020) #HIV2020

Persons Living with Diagnosed or Undiagnosed HIV Infection

HIV Care Continuum Outcomes, 2014—United States



Note. Receipt of medical care was defined as ≥ 1 test (CD4 or VL) in 2014. Retained in continuous medical care was defined as ≥ 2 tests (CD4 or VL) ≥ 3 months apart in 2014. Viral suppression was defined as <200 copies/mL on the most recent VL test in 2014.



The future of care in Nevada must look to our care continuum

- ▶ We must measure statewide and local care continuums to inform resource distribution
 - ▶ Measurement can be done
 - ▶ Use this information to allocate resources to
 - ▶ where they are needed
 - ▶ keep high functioning programs funded
- ▶ We need to geomap viral load, HIV diagnoses, and available resources to improve linkages
- ▶ We need to guarantee access to ART and coordinated care
 - ▶ Social support
 - ▶ Mental health support

Four Prevention Opportunities

Status	Prevention Measure	Timing
Uninfected, unexposed	Behavioral, structural interventions (eg, condoms, circumcision)	Years
Uninfected, exposed (precoital/coital)	PrEP	Hours
Uninfected, exposed (postcoital)	PEP	72 hours
Infected	Treatment of HIV to reduce infectivity	Years

Cohen MS, et al. J Clin Invest. 2008;118:1244-1254.
Cohen MS, et al. J Int AIDS Soc. 2008;11:4.



Slide credit: clinicaloptions.com

The future of care in Nevada must include prevention

- ▶ Must link prevention and care together
 - ▶ In planning
 - ▶ In funding
 - ▶ In programs
- ▶ Must increase access to PREP and PEP
 - ▶ Education of providers and patients needed
- ▶ This linkage must be transparent and without squabbling about territory

ART for Prevention of HIV Transmission in Serodiscordant Couples

- ▶ **HPTN 052:** HIV-infected partner in healthy serodiscordant couples randomized to **early** or **deferred** ART (N = 1763 couples)^[1]
 - ▶ Overall **93% reduction in risk** of transmission with **early** therapy
 - ▶ **No linked HIV transmissions where index partner suppressed on ART**
- ▶ **PARTNER:** observational study in serodiscordant couples where HIV-infected partner on suppressive ART and condoms not used (N = 888 couples)^[2]
 - ▶ **No linked transmissions recorded in any couple**
 - ▶ Median follow-up: 1.3 yrs; ~ 58,000 sex acts

1. Cohen MS, et al. N Engl J Med. 2016;375:830-839.

2. Rodger A, et al. JAMA. 2016;316:171-181.

The logical conclusion.....

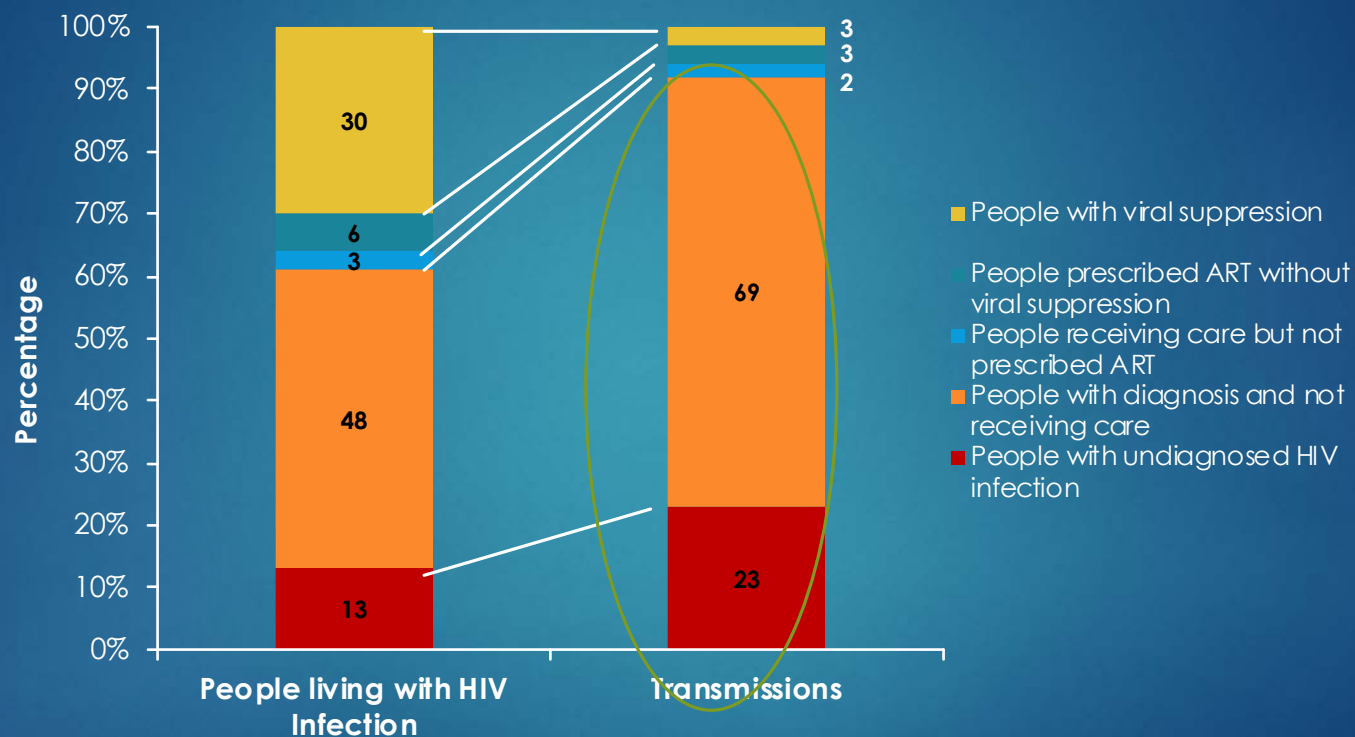
$$U=U$$

Current Recommendations

- ▶ Move from diagnosis to...
- ▶ Immediate prescription of ART
- ▶ In an effort to **reduce HIV transmission**

(Skarbinski et al. JAMA IM 2015 and **START**)
<http://www.niaid.nih.gov/news/QA/Pages/STARTqa.aspx>

Percentage of People with HIV and Percentage of HIV Transmissions at Each Stage of the Care Continuum, U.S. and Puerto Rico, 2012



92% of new HIV infections are transmitted from HIV-positive persons who are undiagnosed or diagnosed but not in care

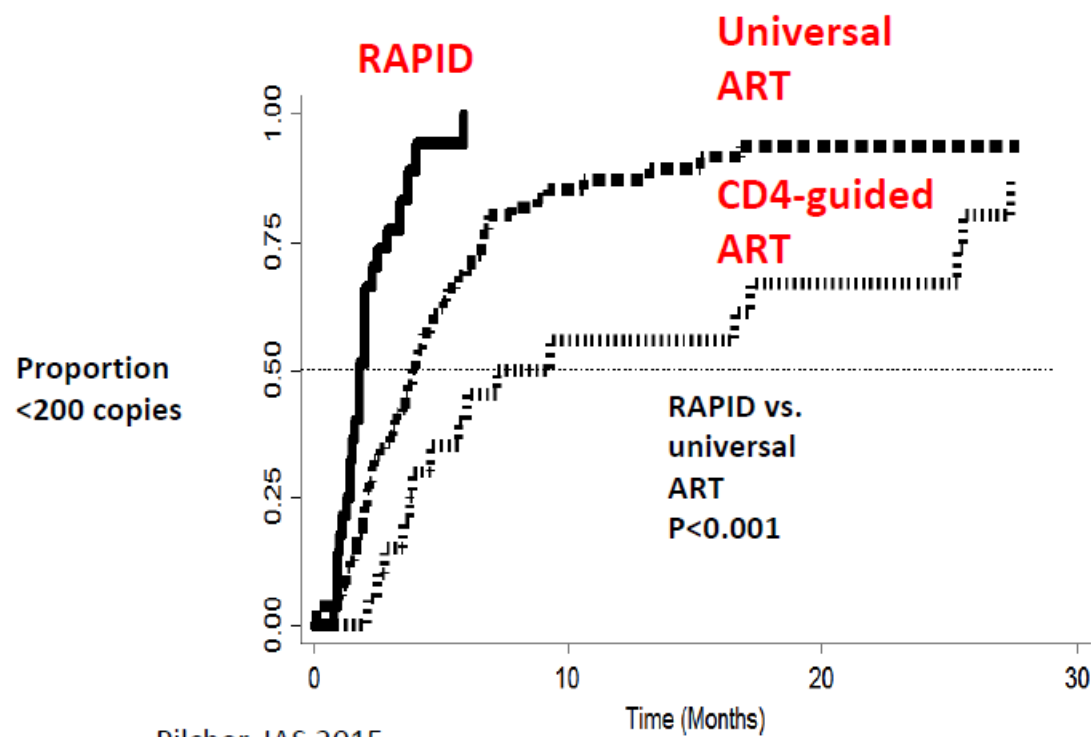
The future of HIV care in Nevada must include “test and treat”

- ▶ Need to enhance TESTING
 - ▶ *Must have routine testing in all clinical sites*
 - ▶ *Must have readily available testing in targeted sites*
 - ▶ *Must make testing “COOL”*
 - ▶ *Must make testing SAFE*

The future of HIV care in Nevada must include “test and treat”

- ▶ Must develop protocols that allow treatment at the time of diagnosis
 - ▶ Successful models in San Francisco, at USC emergency room
 - ▶ Possible because of safer medications with much better coverage even for most resistant virus (no need to wait for phenotype)
 - ▶ Easy to draw labs at time of giving them the medication or same day when getting an appointment
 - ▶ Need rapid follow up to complete the linkage to care (next day or even same day)
 - ▶ Need warm hand offs in any transitions and link to social support
- ▶ Results show rapid VL suppression, better linkage to care, better adherence

Time to VL suppression by ART initiation strategy: SFGH 2006-2014



Pilcher, IAS 2015

Future of HIV care in Nevada must embrace “Getting to Zero”

- ▶ Requires that all members and stakeholders in this vision must communicate and plan cohesively
- ▶ Must include impacted populations, must include providers of care, must include media and marketing, must include payers for care, must include policy makers, must include.....

WELL EVERYONE ACTUALLY

Past, current and future challenges to “Getting to Zero”

- ▶ Past, present and future
 - ▶ Testing and treatment stigma, fear and discrimination
 - ▶ Access to testing, care, prevention and support
 - ▶ Coordinated care
 - ▶ Educating providers and patients
 - ▶ Adherence
- ▶ Current
 - ▶ PREP stigma and discrimination
 - ▶ STI explosion and current state of safe sex (condoms)
- ▶ Future
 - ▶ Creation of a Vaccine
 - ▶ Development of a Cure

If the Goal is No HIV then.....

- ▶ Current challenges must be addressed together
 - ▶ In a spirit of trust, collaboration and sharing
 - ▶ Practicing transparency
 - ▶ Involving everyone
 - ▶ Stressing innovation
- ▶ From a multicultural, multidisciplinary, multifaceted Sandbox solution
 - ▶ Stigma and discrimination can be tackled through policies, marketing and innovative programs
 - ▶ Exciting education for patients, for the public and for providers can be crafted
 - ▶ Programs can grow to address mental and behavioral health for those with and at risk for HIV



Can we get there?

- ▶ Remember,
 - ▶ Brilliant scientists already found the virus that caused HIV
 - ▶ Big pharmaceutical companies and independent researchers found safe and effective medications
 - ▶ Global research involving thousands of people has shown that U=U
 - ▶ ADA, HIV as a disability, ACA federal programs have impacted discrimination and access
 - ▶ Team based care is the new norm
 - ▶ HIV tests are now 4th generation and fast and easy
- ▶ These achievements have made HIV a chronic disease with a normal life span and reduced new infections for adults and children

What are we missing in HIV/AIDS?

- ▶ A cure
- ▶ A vaccine

However until brilliant scientists get this task done, we must focus on the cultural, social and behavioral challenges to “Get to Zero”