



June 28, 2022 3:00 p.m.- 4:00p.m. ET



#### **Moderator**



**Lynn Bretl** 

Director
State Adolescent Health Resource Center
(SAHRC)
University of Minnesota



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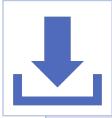
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#### **Speakers**



**Shaun Anderson** 

Assistant Professor
Department of Health, Physical
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Tessa Clemens

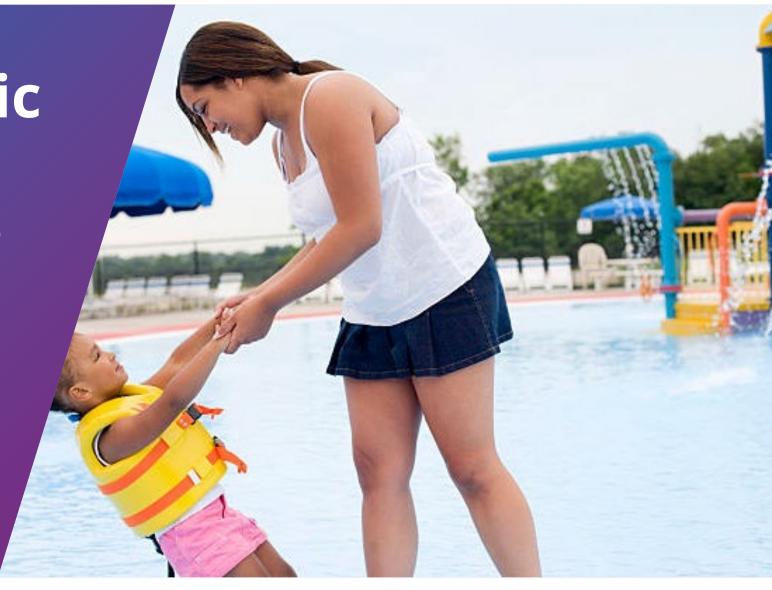
Health Scientist
National Center for Injury Prevention
and Control
CDC



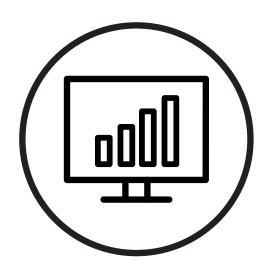


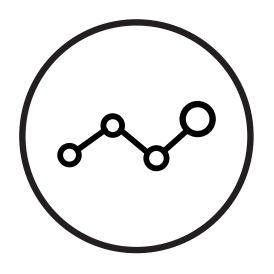
Racial and Ethnic Disparities in Drowning Rates

Tessa Clemens, PhD CDC Division of Injury Prevention Children's Safety Network Webinar June 28, 2022



## Agenda







Key drowning facts and statistics

Racial and ethnic disparities in drowning death rates

CDC's role in drowning prevention

Key drowning facts and statistics



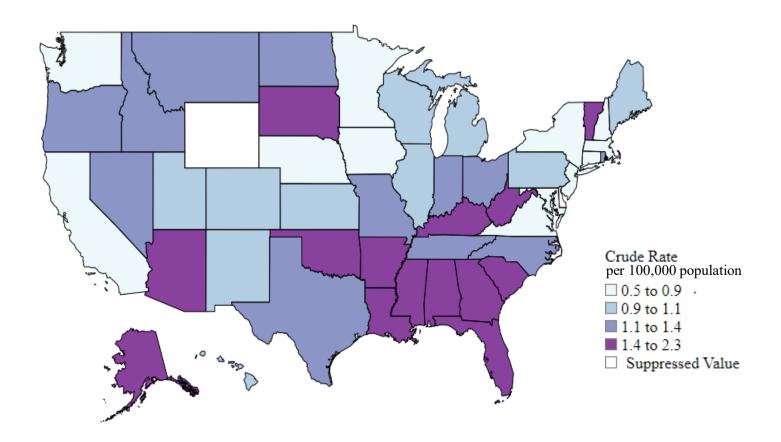
## **Drowning in the United States**

Drowning is a leading cause of death for children

All ages: **4,000** fatal drownings, **8,000** non-fatal drownings every year

Non-fatal drowning can result in long-term health problems

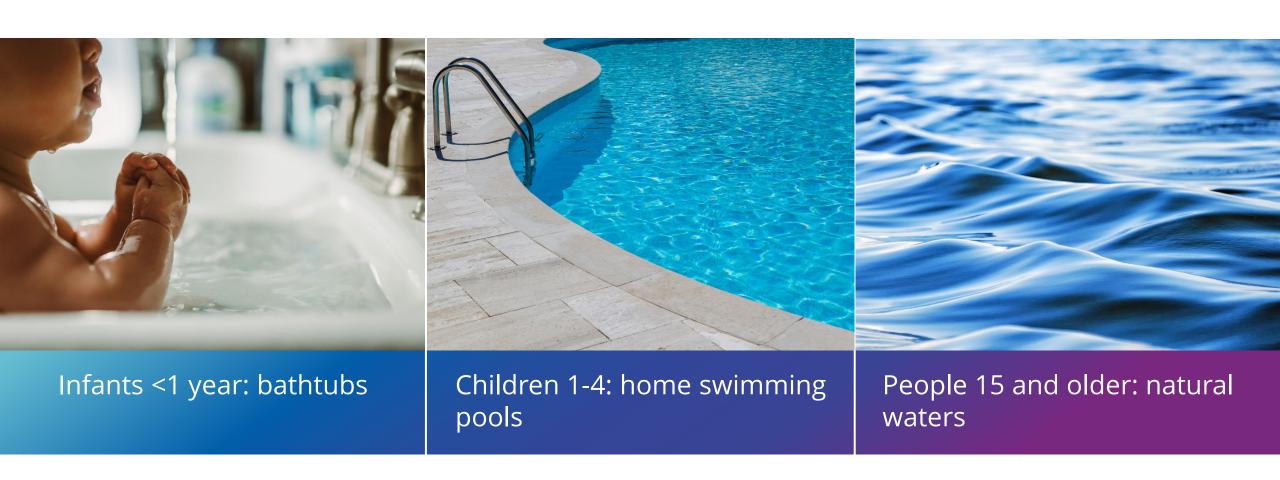
## Drowning death rates by state, children ≤18 years, 2016–2020



Overall, 1.1 drowning deaths per 100,000 population

States with highest rates: LA, MS, FL, AR, AL

#### Drowning locations vary by age group





## Some people are at higher risk



Children



Males



Some racial and ethnic groups



People with certain medical conditions



## Certain factors increase risk



Not being able to swim



**Missing fences** 



Lack of supervision



Not wearing life jackets



**Drinking alcohol** 



## Drowning can be prevented



Learn swimming and water safety



**Build and maintain fences** 



**Supervise closely** 



Wear a lifejacket



**Avoid alcohol** 



#### **Drowning can be** prevented



**Learn CPR** 



**Know the risks of** natural water

্রিণ্ড Use the buddy system



Take precautions for medical conditions



**Don't hyperventilate** 

# Racial and ethnic disparities in drowning death rates



Morbidity and Mortality Weekly Report

June 18, 2021

#### Persistent Racial/Ethnic Disparities in Fatal Unintentional Drowning Rates Among Persons Aged ≤29 Years — United States, 1999–2019

Tessa Clemens, PhD1; Briana Moreland, MPH1,2; Robin Lee, PhD1

During 1999–2019, a total of 81,947 unintentional drowning deaths occurred in the United States (1). Drowning is one of the three leading causes of unintentional injury death among persons aged ≤29 years and results in more deaths among children aged 1-4 years than any other cause except birth defects (2). Drowning death rates have decreased since 1990 (declining by 57% worldwide and by 32% in the United States) (3). However, because of racial/ethnic disparities in drowning risk, rates remain high among certain racial/ethnic groups, particularly American Indian or Alaska Native (AI/AN) persons and Black or African-American (Black) persons (4). To assess whether decreasing drowning death rates have been accompanied by reductions in racial/ethnic disparities, and to further describe these disparities by age group and setting, CDC analyzed U.S. mortality data during 1999-2019. The drowning death rate among persons aged ≤29 years was 1.3 per 100,000 population. The rate per 100,000 among AI/AN persons (2.5) and Black persons (1.8) was higher than among all other racial/ethnic groups and was 2.0 and 1.5 times higher than among White persons (1.2). Racial/ethnic disparities in drowning death rates did not significantly decline for most groups, and the disparity in rates among Black persons compared with White persons increased significantly from 2005-2019. Drowning death rates are associated with persistent and concerning racial/ethnic disparities. A better understanding of the factors that contribute to drowning disparities is needed. Implementing and evaluating community-based interventions, including those promoting basic swimming and water safety skills, among disproportionately affected racial/ethnic groups could help reduce drowning disparities.

National Vital Statistics System death certificate data from 1999–2019 were used to calculate unintentional drowning death rates and disparity rate ratios (RRs) for persons aged ≤29 years. Crude death rates (per 100,000 population) were

calculated using 1999–2019 U.S. Census bridged-race population estimates. Disparity RRs and their corresponding 95% confidence intervals (CIs) were calculated using White persons as the reference population (chosen because they represented the largest racial/ethnic group during the study period). RRs >1.0 indicate a higher drowning death rate in the specified group compared with White persons. Because of high interannual variability in drowning death rates, 5-year moving averages in rates and RRs were calculated to visualize temporal trends.

Unintentional drowning deaths were identified using the *International Classification of Diseases, Tenth Revision* underlying cause of death codes W65–W74, V90, and V92. Death rates and RRs were examined by setting (bathtub, swimming pool,

#### **INSIDE**

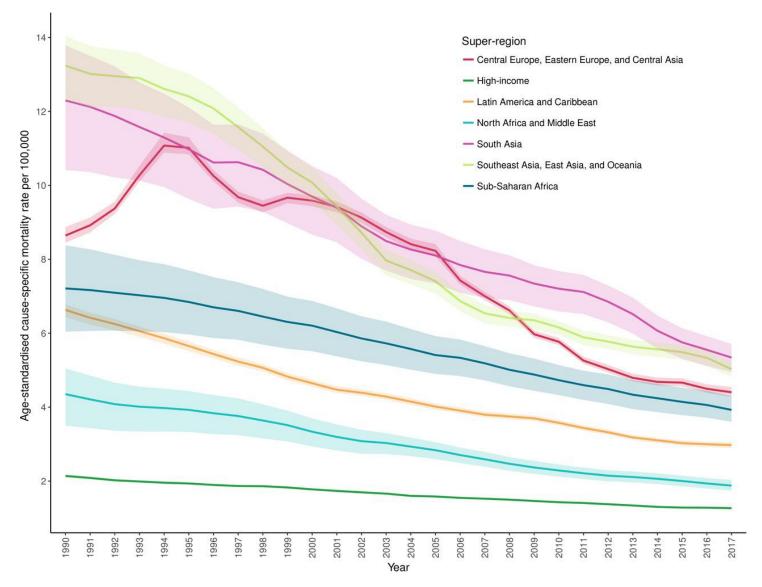
- 875 Hepatitis A Virus Infections Among Men Who Have Sex with Men — Eight U.S. States, 2017–2018
- 879 Mental Health Among Parents of Children Aged <18 Years and Unpaid Caregivers of Adults During the COVID-19 Pandemic — United States, December 2020 and February–March 2021
- 888 Emergency Department Visits for Suspected Suicide Attempts Among Persons Aged 12–25 Years Before and During the COVID-19 Pandemic — United States, January 2019–May 2021
- 895 COVID-19 Vaccination Coverage Among Pregnant Women During Pregnancy — Eight Integrated Health Care Organizations, United States, December 14, 2020–May 8, 2021
- 901 QuickStats

Continuing Education examination available at https://www.cdc.gov/mmwr/mmwr\_continuingEducation.html



**U.S. Department of Health and Human Services**Centers for Disease Control and Prevention

#### Drowning death rates globally



Franklin RC, Peden AE, Hamilton EB, et al The burden of unintentional drowning: global, regional and national estimates of

mortality from the Global Burden of Disease 2017 Study. Injury Prevention 2020;26:i83-i95.

**↓** 57% Worldwide

↓ 47% All highincome countries

**↓** 32% United States

## Racial and ethnic disparities in drowning rates

+ Previous MMWR (2014)\* identified racial and ethnic disparities

+ 1999-2010: American Indian or Alaska Native persons' rates 2x higher, Black persons' rates 1.4x higher (vs. White persons)

Have racial and ethnic disparities decreased with decreasing drowning rates?

#### Methods



## Death certificate data 1999-2019

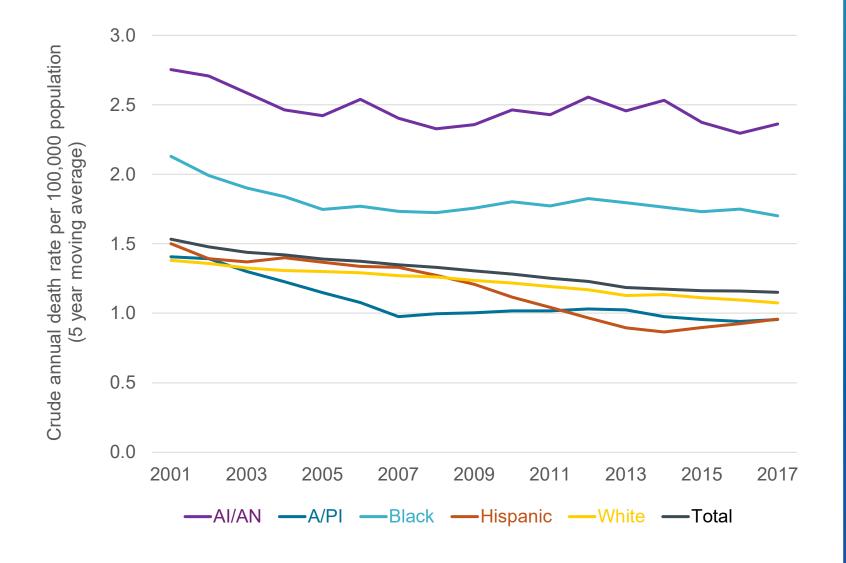


Calculated death rates and disparity rate ratios (RRs)



Joinpoint regression to describe trends

## Drowning death rates, persons ≤29 years, US, 1999-2019

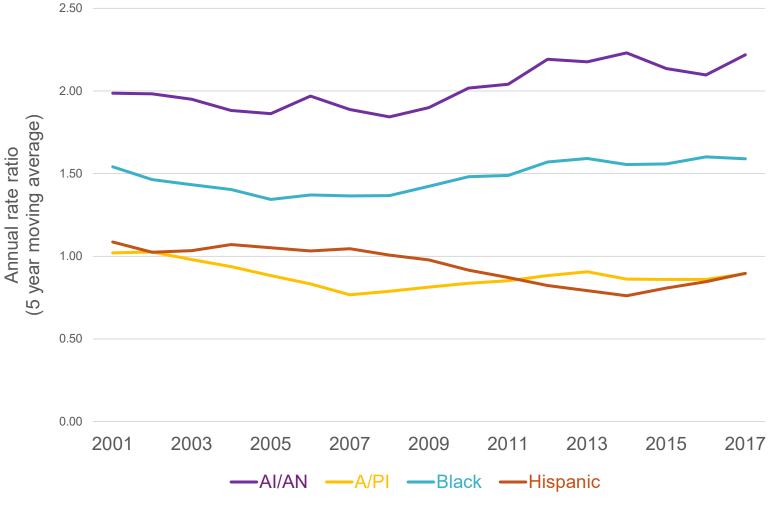


## Drowning rates decreased overall

There was no significant decrease in Al/AN or Hispanic rates

The highest drowning rates were among Al/AN and Black persons

## Disparity rate ratios\*, persons ≤29 years, US, 1999-2019

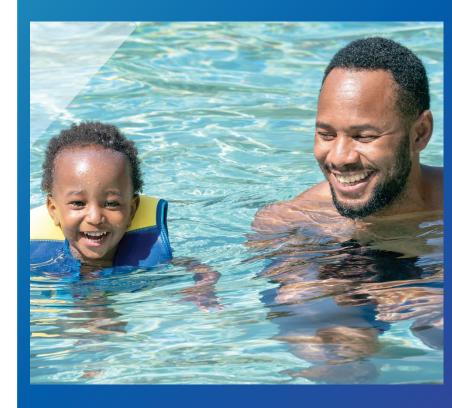


No change in Al/AN vs. White rate ratio

Black vs. White rate ratio increased from 2005 to 2019

## Drowning death rates and RRs varied by age group

- + Disparities in Al/AN rates (vs. Whites) were present across all age groups
  - Highest among 25-29 years, followed by <1 year
- + Disparities in Black rates (vs. Whites) were present across all age groups except 1-4 years
  - Highest among 10-14 years, followed by 5-9 years



## Disparities were present in all settings

- + The highest RRs occurred among Black youth in swimming pools
- + Compared to White persons, there were disparities in swimming pool deaths for Asian and Hispanic persons in most age groups
- + Fatal drowning rates in natural water were highest among AI/AN persons





Racial/ethnic disparities persist

Limited research available on determinants of disparities

Having basic swimming and water safety skills can be beneficial in all settings

#### **Key Points**

- + Identification of factors contributing to disparities is necessary to inform interventions
- + Community-based interventions among disproportionately affected groups could help reduce disparities



CDC's role in drowning prevention



#### What we do

- + Use data to identify and characterize risks
- + Inform prevention strategies
- + Provide technical assistance to states and other partners
- + Create and maintain partnerships to maximize impact



## Improve and promote quality of drowning data and surveillance

- + Drowning syndromic surveillance definition
- + Partnering to improve data collection on the circumstances of child drowning deaths and factors associated with racial and ethnic disparities



## Pilot and evaluate drowning prevention strategies

- + Partnering to understand barriers to participation in basic swimming and water safety skills training
  - Identify barriers to participation in communities at increased risk of drowning
- + Partnering to evaluate swim skills training programs
  - Understand how to most effectively teach young children water competency skills
  - Pilot swim skills training programs in communities with populations at increased risk of drowning



#### Summary

- Drowning is preventable, yet it is a leading cause of injury-related death for children and young people
- There are racial and ethnic disparities in drowning death rates
- CDC is working to understand the problem and find solutions

### Thank you!

#### More info:

www.cdc.gov/drowning

tclemens@cdc.gov

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



#### **Questions?**



Please enter your questions in the Q & A pod



#### Dr. Shaun M. Anderson

The African American Drowning Disparity Cycle

## Swimming ability in Africa 1400-1600

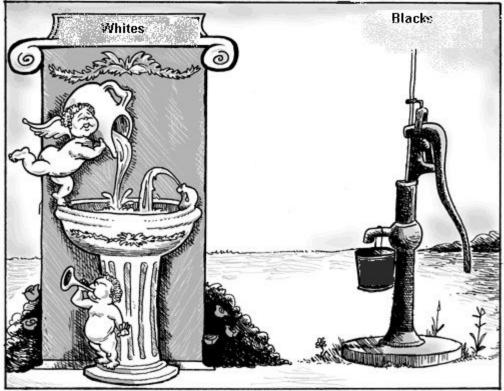
- In Africa prior to the transatlantic slave trade, Europeans reported coastal Africans as being excellent swimmers (Pitts, 2007, p. 44).
  - As stated by Dawson (2006):
    - "Over more than three centuries, western travelers to West Africa reported that Africans were sound swimmers; several noted that they generally swam better than Europeans and described their use of the freestyle" (p. 1331).
- One of the earliest swimming based publications, "The Art of Swimming," made note of the exceptional swimming skills of both Negros and Indians (Dawson & Wigo, 2013 p. 11).

## Slavery **14005-18005**

- Pitts (2007) stated, "Fears of revolt and escapes by swimming made slave owners take drastic steps to prevent Blacks from swimming and learning to swim, thus removing the West African swimming tradition from African-American culture" (p. 44).
- Frederick Douglass recalled that near where he lived in Maryland in the 1820's when he was seven or eight "there was a creek to swim in, at the bottom of an open flat space, of twenty acres or more, called 'the Long Creen'—a very beautiful play-ground for the children." Enslaved parents, family members, and the entire slave community probably taught children to swim, just as they instructed them in gardening, cooking, sewing, hunting, and enduring bondage. (Dawson, 2006, p. 1344)

## Segregation 1896 – 1964

#### PLESSY VS. FERGUSON



#### SEPARATE BUT NOT EQUAL

- The impact of the Plessy v. Ferguson (1896) case made it clear that all states and other agencies were free to use racial categorization to segregate public places, as they had been doing and would continue to do for decades (Hoffer, 2014, p. 1).
- In terms of aquatics, many problems arose with this doctrine; the first being that many facilities, if built at all, were not equal.

### Segregation

- A time when African Americans were not allowed, by law, to enter White-only facilities. This was often enforced by both public officials and European American patrons (Wiltse, 2014, p. 368).
- Wiltse (2014), "Cities provided relatively few pools for Black residents, and the pools they did provide were typically small and dilapidated" (p. 368).
- Wiltse (2014) "Black Americans also faced restricted access to Young Men's Christian Association (YMCA) pools and YMCA swim lessons" (p. 368).

\*\*It's important to note that in some areas African American swimming programs did flourish; and, with reports of both swim lessons and swim teams. Unfortunately, however, although these opportunities did exist, they were few and far between for African Americans (Wiltse, 2014, p. 370).

# Segregation & Fear



 Not only were the swimming facilities built for African Americans often inferior, but the beaches that African Americans had access to also proved too often be the most treacherous areas of the shoreline (Sanders, 2015)

# Segregation & Fear

- Ross et al. (2014) found that parents often passed on their own fear of water to their children (p. 227).
- Although, there are accounts of access and programming in some African American communities, during this era the beginning of a legacy of fear can be found for those who were restricted from safe places to swim.
- Ito (2014) found that this passing down effect continues:
  - Social customs, attitudes, and values related to water safety and swimming are passed from one generation to the next. Participants repeatedly stated their fear of water was "passed down" and there were numerous examples of how they passed their fears to their children, including forbidding them to attend school-sponsored trips to waterparks. (p. 251)

## Swimming Ability in the United States 1900-1940

- With the drowning rate higher that it is today, registering at 8.8 people per 100,000 in 1914 and equating to over 8,000 Americans drowning annually, water safety was definitely an issue (The American Red Cross, 2009).
- During the time period from roughly 1900 to 1940, the building of swimming pools and the popularity of swimming became widespread in the United States (Wiltse, 2014, p. 368).

### June 15, 1904 General Slocum (East River)

https://www.youtube.com/watch?v=Tn5XdgNo5xA&rel=o



Death on the Steamer Gen. Slocum,

Which Caught Fire When Loaded

with Excursionists.



er Island and Other

Points Around -Hell-

Gate ... Fire Caused by:

the Overturning of Pot of Grease in the Galley.

## Swimming Ability in the United States 1900-1940

- Shortly after a presentation given in 1912 by Commodore Wilbert E. Longfellow to the Red Cross, The Red Cross Life Saving Corps was formed and headed by Longfellow (The American Red Cross, 2009).
- 1922, national aquatic schools were set up with the purpose of teaching water safety, and first aid instruction began. The Red Cross began to add national aquatic schools for training and qualifying water safety and first aid instructors (American Red Cross, 2009)
- The national awareness drawn to water safety as a result of that event spurred all American colleges and universities with pools to require students to pass a swimming test, which also trickled down to the primary and secondary schools, and helped drive the building of more pools (O'Donnell, 2003; International Swimming Hall of Fame, n. d.).
- The YMCA built its first swimming facility in Brooklyn, NY in 1885. By 1914, there were roughly 450 YMCAs with swimming facilities. Initially using the George Corson mass lesson system, the YMCAs taught almost half a million people how to swim over the 10 years after the sinking of General Slocum (International Swimming Hall of Fame, n. d).

## Swimming Ability in the United States 1900-1940

- Teaming up with the Red Cross, as well as other organizations such as the Boy Scouts, led to the certification of over 2,500 lifeguards annually as well as the formation of swim teams and competitive swimming leagues (International Swimming Hall of Fame, n. d.).
- By 1916, the collaboration between the Red Cross, Boy Scouts, the US Volunteer Lifesaving Corps, and the YMCA had reduced the number of annual, accidental drowning victims by nearly 2,000, in spite of a 30% increase in population and a greater proportion of the population enjoying the beach and pools. (International Swimming Hall of Fame, n. d., p. 5)
- The impact was felt and the drowning rate which was at 8.8 in 1914 dropped to 4.8 by 1947 (The American Red Cross, 2009).

# Desegregation 50s, 60s, 70s and Beyond



- 1964 as a result of desegregation, African Americans were to have access to all public facilities (Kirk, 2014, p. 138). However, in many cities and towns it did not unfold that way. In the case of swimming pools, many municipal pools decided to close rather than desegregate, and the facilities that did stay open were often the scene of harassment or violence when African Americans attempted to access facilities in European American neighborhoods (Wiltse, 2014, p. 373).
- These clashes fueled a huge increase in the building of private pools and swim clubs, with tens of thousands of new private pools and swimming clubs forming in the 50's and 60's; however, African Americans were typically denied access (Wiltse, 2014).

# Desegregation 50s, 60s, 70s and Beyond

- In theory, as a result of desegregation, African Americans were to have access to all public facilities (Kirk, 2014, p. 138). However, in many cities and towns it did not unfold that way. In the case of swimming pools, many municipal pools decided to close rather than desegregate, and the facilities that did stay open were often the scene of harassment or violence when African Americans attempted to access facilities in European American neighborhoods (Wiltse, 2014, p. 373).
- These clashes fueled a huge increase in the building of private pools and swim clubs, with tens of thousands of new private pools and swimming clubs forming in the 50's and 60's; however, African Americans were typically denied access (Wiltse, 2014).
- During this time Americans also saw a decline in the production of public pools, and in some instances, public facilities were sold to private owners. The privately-owned clubs flourished and "since they were privately owned, not technically businesses, and therefore not covered under the "public accommodations" clause of the 1964 Civil Rights Act, if African Americans did try to join, private membership restrictions could be and were used to prevent interracial swimming" as noted by Kirk (2014, p. 160-161).

# Desegregation 50s, 60s, 70s and Beyond

- Wiltse (2014) concluded that at this time in history,
  - Some Black Americans learned to swim but relatively few. By contrast, swimming became broadly popular among Whites and developed into a self-perpetuating recreational and sports culture precisely because they generally had convenient access to appealing swimming pools. Successive generations of White parents took their children to swimming pools and taught them to swim, because that is what they did as children. No such broad, self-perpetuating swim culture developed among Black Americans, however, because they were largely denied access to the pools at which swimming became popularized during the 20<sup>th</sup> century. In this way, the swimming disparity created by past discrimination persists into the present. (p. 368-369)

# Reinforced in Popular Culture

- "Million Dollar Mermaid" (Pullen, 2010, p. 877). Other examples include the growth of recreational and sport based aquatic activities such as surfing during this time.
- Surfing culture was popularized through television shows such as Gidget, and films such as "Beach Party (1963), Muscle Beach Party (1964), Bikini Beach (1964), Beach Blanket Bingo (1965), and How to Stuff a Wild Bikini (1965)," as outlined by Bukowczyk (2010, p. 92).
- Musical groups, such as the Beach Boys, and their hit, "Surfin," in 1961, were followed by many subsequent hit albums, such as "Surfin' Safari", which was a Billboard top 40 hit in 1962 (Fitzgerald, 2009).
- Although, African American surfers did surf the California coast during this era, that is not what was portrayed in popular culture (Bukowczyk, 2010).

## Myths

#### https://youtu.be/O4XUbENGaiY

http://abcnews.go.com/Nightline/video/1987-baseball-managers-racist-remarks-16086569



### Myths

- As reported by Mael (1995) while at the U.S. Army Research Institute, the research found no such correlation due to physiology.
- Martin and Witman (2010) stated that:
  - Evidence supported a relationship between fewer opportunities to take swimming lessons and higher minority drowning rates. Brenner et al. (2001), Saluja et al. (2006), Sanford et al. (2001), and Dawson (2006) have all provided evidence demonstrating a relationship between the disparity in drowning rates and the reduced tendency of members of minority groups to receive swimming instruction. (p. 13)

#### Role Models

- Anthony Ervin, Maritza Correia McClendon, Cullen Jones, Lia Neal, Simone Manuel
- Enith Brigitha of Holland, from Curacao, who in 1976 became the first Black swimmer to win an Olympic medal,
- Anthony Nesty, of Surinam, who won an Olympic gold medal in 1988 (Stewart, 2016).
- There was also a strong history of competitive swimming at Historically Black Colleges and Universities in the 70's and 80's, as documented by Lumpkin (1978, pp. 3-8).
- The aquatics industry has also seen accomplished swim teams, lifeguards, swim instructors, and swim coaches, such as Jim Ellis, who's journey as an African American swim coach was highlighted in the movie, Pride, in 2007 (Ito, 2014, p. 246).
- These pioneers led the way on the pool decks and beaches around the country. However, their accomplishments went largely unnoticed and number are relatively few.

## The African American Drowning Disparity Cycle

- 1) Historical barriers, such as slavery, segregation, and Jim Crow laws, led to the demise of an aquatic tradition and culture.
- 2) This demise created a generation with fewer swimmers, and therefore, fewer role models.
- 3) Fewer African American swimmers led to less African American aquatic professionals and aquatic sport athletes. Over time, this led to myths and stereotypes -- false explanations as to why African Americans didn't swim.
- 4) Myths and stereotypes influenced social norms. Thus, it became 'the norm' that African Americans did not swim.
- 5) This ultimately led to present day behaviors being recycled; becoming the future's past history and, thereby, closing the loop in the ongoing cycle. This led to the ongoing drowning disparity.

# Implications for future leadership practice

- All of the above strategy
  - Unbalanced Equation
- Fill the pipeline
- Starts with awareness
  - •Swim lessons feed swim teams, which feeds role the model pool, which dismisses stereotypes and myths...... what feeds lessons?
- Begins with awareness!

# Implications for future practice

- Breaking traditions of passed down fear and cycles of generations of non-swimming families;
- Increasing water safety awareness and knowledge of the health benefits of aquatics in an effort to address the devalued prioritization of swimming instruction;
- Providing information about personal hair and skin care and body image issues;
- Dismissing myths through role models, cultural competency and education as well as addressing the inherent racism that often accompanies those myths and stereotypes;
- Providing exposure to the many career opportunities available in aquatics.

# **Questions?**



Please enter your questions in the Q & A pod



When we start with WHY, we have a better understanding of WHAT the CHALLENGES are towards eliminating the disparities in Drowning Rates, Participation, and Leadership in Aquatics for African American, Hispanic and Indigenous Communities and HOW we can create new solutions to change it (Lynch, 2021)



# Beyond The Barriers of...

Funding Access Opportunity











A 'curvier' high school swimmer won — only to be disqualified because of a 'suit wedgie'







### Are You Ally, Accomplice, or Co-Conspirator?

Ally - An ally is someone who supports equal justice in theory

Accomplice - Accomplices actively work to dismantle systems of oppression.

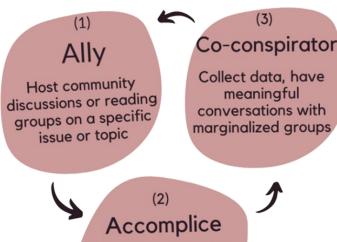
Co-Conspirator - Co-conspirators work alongside the communities they support. They have, seek, and create meaningful relationships with the people they actively support.

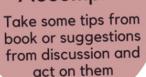




#### THE CYCLE OF ALLYSHIP

Being an ally is just the first step in a longer cycle of showing up for and with marginalized groups.





# **Examining the System**

#### From Where We Are....







To Where We Need To Be

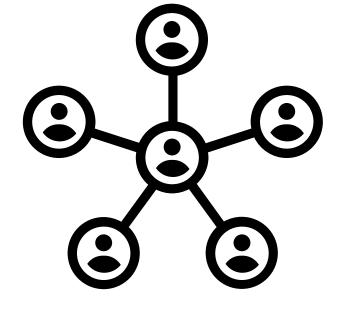


# The Work is Both

Individual

and

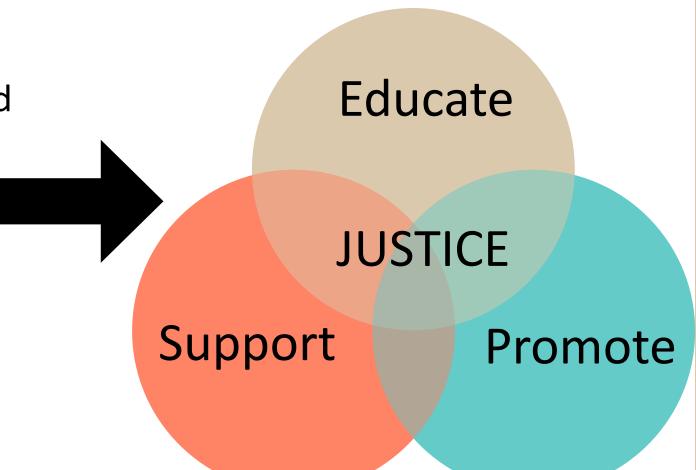
Organization





# diversity IN aquatics PILLARS

These areas help provide a focus on a community centered approach toward saving lives, creating sustainable programming & increasing opportunities in aquatics



# "PROGRAMS DO NOT COME OUT OF THE MINDS OF ANY ONE PERSON OR TWO PEOPLE, BUT OUT OF THE DAY-TO-DAY WORK & INTERACTION BETWEEN ORGANIZERS AND THE COMMUNITIES IN WHICH THEY WORK"



(Carmichael et. al, 1992)







## Reflection

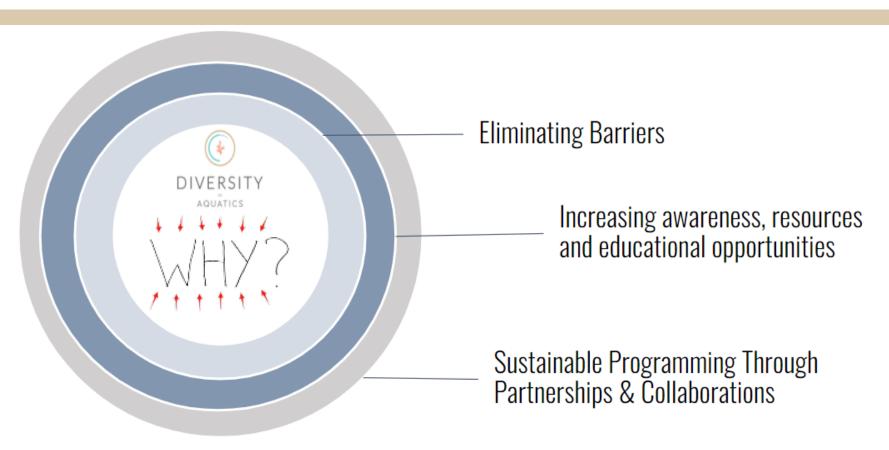
#### Asking The Questions







#### A Multi-sectorial & Community Centered Approach

























"You must include the people you want to impact from the very beginning, throughout the entire process. Programs must be genuine, authentic, and culturally responsive to the community that you're working with."

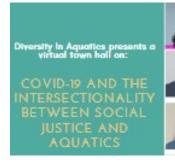


# Educate



International Journal of Aquatic Research and Education

Addressing the Gaps & IJARE Diversity In Aquatics
Needs of the Community Special Edition



Webinars, Trainings, and Learning seminars



Pool: A Social History of Segregation



Wade In the Water Film



# Promote



#IDESERVE2SWIM



Maura Reid Winston Water Works



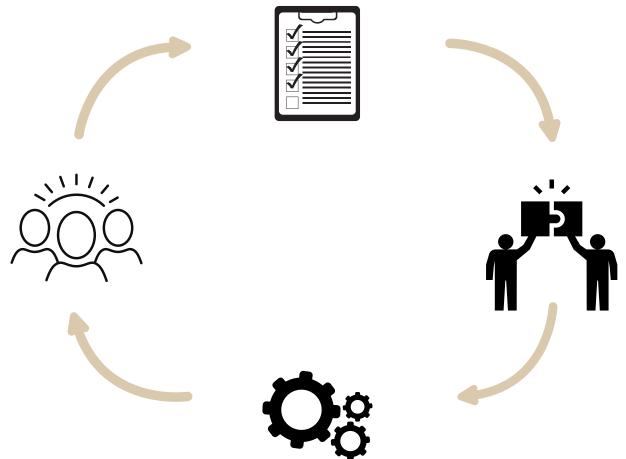
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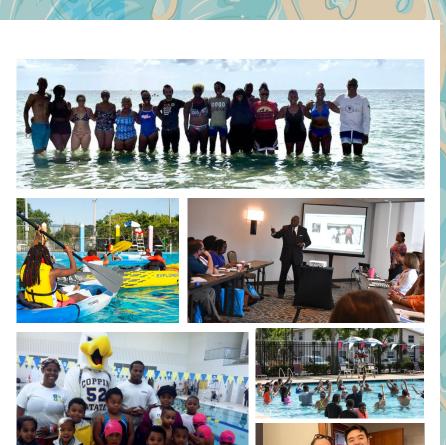


Swim In for Social Justice



# Support





# Summary

## Creating A Sustainable Approach for Aquatic Programming



www.diversityinaquatics.org

However, "In order to find effective solutions, one must formulate the problem correctly. One must start with the premise rooted in truth and reality rather than myth."

# Thank You

# Questions and Answers?



info@diversityinaquatics.org

# **Questions and Answer Session**



Please enter your questions in the Q & A pod



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