

DEMOGRAPHIC DESTINIES

Interviews with Presidents of the Population Association of America

Interview with Robert Hummer PAA President in 2021



This series of interviews with Past PAA Presidents was initiated by Anders Lunde
(PAA Historian, 1973 to 1982)

And continued by Jean van der Tak (PAA Historian, 1982 to 1994)

And then by John R. Weeks (PAA Historian, 1994 to present)

With the collaboration of the following members of the PAA History Committee:
David Heer (2004 to 2007), Paul Demeny (2004 to 2012), Dennis Hodgson (2004 to
present), Deborah McFarlane (2004 to 2018, 2024 to present), Karen Hardee (2010 to
present), Emily Merchant (2016 to present), and Win Brown (2018 to present)

ROBERT HUMMER

PAA President in 2021 (No. 84). On October 2nd, 2025, we were able to have a Zoom interview with Dr. Hummer. The members of the PAA History Committee participating in the interview included John Weeks, Dennis Hodgson, Karen Hardee, Deborah McFarlane, Emily Merchant, and Win Brown.

CAREER HIGHLIGHTS: Dr. Hummer was born in 1963 in on the east side of Detroit, Michigan, and after moving during 2nd grade, grew up in a remote rural part of Macomb County, to the northeast of Detroit. He went to Adrian College in southern Michigan, graduating in 1985 with a B.A. in Sociology and Business. He received an M.S. in Sociology from Florida State University in 1990 and a Ph.D. from there in 1993. He spent two years as Assistant Professor of Sociology at East Carolina University in Greenville, and then a year as Assistant Professor of Sociology at Louisiana State University in Baton Rouge, before accepting a position at the University of Texas, Austin, where he ultimately became Professor of Sociology, Chair of the Department of Sociology, Director of the Population Research Center, Frank C. Irwin, Jr., Research Fellow at the IC2 Institute, and Centennial Commission Professor of Liberal Arts in the Department of Sociology. In 2015 he moved to Chapel Hill to accept his current position as the Howard W. Odum Distinguished Professor of Sociology at the University of North Carolina, and Fellow of the Carolina Population Center. He has subsequently assumed the directorship of UNC's National Longitudinal Study of Adolescent to Adult Health (Add Health). For his highly important and influential work over the years he became an Elected Fellow of the American Academy of Arts & Sciences in 2023. His research focuses on issues of population health, with an emphasis on health disparities and the complexity of human health.

OUR INTERVIEW WITH DR. HUMMER:

- John Weeks: It is the pleasure of the Population Association of America History Committee to be able today to interview PAA Past President Robert Hummer, who is the Howard Odum Distinguished Professor of Sociology at the University of North Carolina, Chapel Hill, Fellow of the Carolina Population Center, and the Director of the National Longitudinal Study of Adolescent to Adult Health [Add Health], which has been going on now for...what, two decades? Am I right about that?
- Dennis Hodgson: More.
- Robert Hummer: Over 30 years.
- John Weeks: Excellent. It is just an amazingly useful and fruitful study that we'll, I'm sure, spend quite a bit of our time talking about. But typically, what we like to do to begin with is to get some of your demographics, to find out where you came from. Now, I have in my notes, Bob, that you were born in 1963. Am I right?
- Robert Hummer: Correct, yes.
- John Weeks: Okay. And where was that?
- Robert Hummer: Detroit, Michigan.
- John Weeks: Okay, Detroit. And so, you grew up in the Detroit area too?

Robert Hummer: I did. My early years were on the east side of Detroit in the city until December 1970. I was in the second grade. And then my parents moved out to very rural Macomb County, which later suburbanized. But it was a quite remote area of Macomb County.

John Weeks: Okay. And so, does that then explain why you went to get your undergraduate degree at Adrian College in southern Michigan?

Robert Hummer: It does. It was fairly close...a couple hours away. And they also, frankly, gave me money. We had six kids in our family and very little money, and so it was a place that I got major scholarships to attend and was able to go to college that way.

John Weeks: Okay, very nice. So, your family had six kids. And was your family religious, or your parents just liked to have kids?

Robert Hummer: Oh, Catholic family. After going to public school for kindergarten in Detroit, the first couple years of my life was at Catholic school. And then once we moved out to Macomb County, there weren't any local Catholic schools in the rural area. So, yeah, they were Catholic, and they're a very close Kennedy family. My name, Robert...My older brothers are Joe and John, and I have a sister, Caroline, as well. Yeah.

Dennis Hodgson: Wow. That's great.

John Weeks: All right. Very good. And so, did your parents have occupations that influenced you in any way?

Robert Hummer: Absolutely. Early on, my dad worked for Ford Motor Credit Company. But he was going to night school at Wayne State University in Detroit for a teaching degree and ended up getting a degree and went into high school teaching and coaching. So, he was an educator. And then, my mom had graduated from high school and took some coursework at Wayne State as well and taught in Catholic schools for a couple years before she started having kids. And then, she was out of the paid labor force for about 15 years as we all kinda grew up, and then she returned to work on a farm for a while.

And then later on, she worked at the front desk of a factory, retired from there, and then later on took another job at a Catholic church down in Florida, where they retired. My parents didn't have much of what I would call "social or cultural capital," but what they did have was the emphasis on schooling. "Go to school. Get your degrees. Do well in school" and so forth. My dad always said he was really good at filling out financial aid forms, and he was. So, he helped me with that a lot.

John Weeks: Okay. And so, your parents retired to Florida. Now I've got to say, my first teaching job was at Michigan State University. And what everybody talked about in East Lansing was, "Oh, well, when we get older, we're going to go to Florida and retire." And so, your parents did that too.

Robert Hummer: They did. They did in 1996 and were there for about 10 years before my dad got older and sicker. And then eventually they moved to St. Louis to be closer to one of my sisters, Caroline, who's a physician. And then, my dad passed away in 2015. My mom still lives in St. Louis.

John Weeks: So, now, you went off to graduate school at Florida State. Was that just a coincidence that you headed to Florida?

Robert Hummer: No. During undergraduate school at Adrian College...speaking about going to Florida, a big thing there was to get out of the winter and go on college spring break to Florida. And so, I did that a couple times as an undergraduate, and then in junior year, I did that with some friends. And we went to Fort Lauderdale for a week, and I met a girl there who was an undergrad at Florida Southern College. And we stayed in touch after that, writing letters and so forth, and eventually she came up to visit me in Michigan, and eventually we started travelling back and forth. And so, I moved to Florida when I graduated from college in 1985 to be close to her, and we married in 1986.

And we're approaching our 39th anniversary in December.

John Weeks: Great story.

Robert Hummer: So, quite a story. It was unique, interesting that – not high odds of that happening, but...So, I moved to Florida in 1985 and spent three years in the labor force doing odd jobs, cleaning carpets, working retail...anything I could to try to make a buck and pay off a little bit of my student loans as well. And then, we got married in that interim time, and then we had a lot of long talks – “What are we gonna do with our future?” Working retail wasn't satisfying for me, and she encouraged me to apply for graduate school. I liked school; I liked sociology. And so, I didn't know at the time how to go to graduate school. I just thought you applied to a local place.

And there were only two places: the University of Florida and Florida State. And Dawn had relatives in Tallahassee, so I applied there, didn't get in the first year...got in the second year with no funding. But we decided to go anyway, and it worked out wonderfully. Yeah.

John Weeks: Yeah. Fantastic. And you were in the sociology program. And looking at your CV, I saw many of your early publications were with Charlie Nam [PAA President in 1979]. Now, was he your mentor there?

Robert Hummer: He was my co-mentor. Interestingly, when I got to Florida State, Charlie was in Indonesia at the time. He spent about a year and a half living in Indonesia working on a training program there. And so, I didn't meet Charlie for the first year and a half or so of my graduate program. And Ike Eberstein was a long-term PAA member and honored by PAA a few years ago, and he's now retired as well. But I didn't know when you went to graduate school that you had a mentor, an advisor, or anything. Just I thought you go and took courses, and you eventually maybe got your degree. But my first year, I was unfunded and still selling retail clothes

at a local mall.

And I was one of the few unfunded students, and Ike and Charlie had gotten a grant at the time on infant mortality patterns and trends in Florida. And Ike looked for an unfunded student, and there I was, and asked if I wanted to work on that project. So, Ike was really extremely influential to my career – still is – and Charlie. So, Charlie later incorporated me into his work on adult mortality as well, so I worked very closely with both of them. They were both incredible mentors. Charlie turns 100 in March coming up in 2026. I'm looking forward to that. I stay in touch with both of them very regularly.

John Weeks: Good, good, yes. Gotta be studying mortality and not experiencing it; that's a good thing.

Robert Hummer: Right, right.

John Weeks: Sure. But then after you got your doctorates, you went to a couple places before you wound up there at Texas.

Robert Hummer: Right. I finished up at Florida State with my PhD in spring of 1993, and I had two job offers. And the one I chose was great. It was at East Carolina University in Greenville, North Carolina...the sociology department. And they treated me wonderfully well. I mean, it was a great place to be. It wasn't a high-impact research context, but I got treated very well, and I was sad to leave two years later, in 1995. But at the same time, I got an opportunity at Louisiana State University (LSU) in Baton Rouge and went there. And Dawn and I...we had a young child at the time, and we really enjoyed being in Baton Rouge, but also for a very short time.

I was there literally about three months when Parker Frisbie, my dear colleague from Texas who passed away a few years ago now, knocked on my door. His daughter lived in Baton Rouge, and he was at the University of Texas at Austin. He knocked on my office door; I said, "What are you doing here?" and he says, "Well, we wanna recruit you to Texas." And I said, "Oh, we just got here." And he says, "Well, this is up to you, but we got a job opening coming up and would love to get your application." So, I did that. And so, all those moves were hard. It wasn't easy. In Greenville, North Carolina and Baton Rouge, we'd bought houses; we sold houses. We had a young kid at the time.

Dawn had to give up her job at every place, which was I think way harder on her than on me. But it all made sense academically, and then getting to Austin in 1996 was a real big thing for my career. It was a great pop center and wonderful people there to work with and to learn from.

John Weeks: All right. And so, how did that then transfer to your coming to Chapel Hill?

Robert Hummer: Yeah. So, at UT Austin, again – I've got everything positive to say about the place there, the Population Research Center. We were in the UT Tower for a long time, and eventually we got a new building toward the end of my tenure there. I was

there 19 years and really grew up there academically. Parker was a wonderful mentor there, and the resources there at the Population Research Center were amazing. The university was wealthy; there were startup funds to help; there were great colleagues there to work with. So, it was wonderful. It was a great ride there. I had brilliant colleagues like Joe Potter and Debra Umberson and Parker and colleagues that were just amazing to learn from and to work with.

And I was director of the Population Research Center there; I was chair of the Department of Sociology. And at some point, it was just felt like I needed something new. I think one of the wonderful things in our academic work is that we can kind of move from place to place – both within a university and across universities – and continue to learn and develop. And I think my learning curve at Texas just kind of flattened out at some point, and I was ready for a move. And UNC had been softly recruiting me for a number of years. Kathie Harris [PAA President in 2009], in particular, was looking for a successor to take over Add Health, and so she had asked me several times over the years to think about applying there.

And eventually, just the timing was right. And so, Kathie and Phil Morgan (another former PAA president—in 2003) were really instrumental in asking me to apply for the Howard Odum Chair and to eventually head up Add Health. So, the timing was right. My second daughter was graduating from high school at the time in Austin, so it made sense to think about a move. And I really needed something new and exciting to work on and Add Health provided that stimulus for me.

John Weeks: Okay. Very, very good. All right. And then, so you bought a new house there in Chapel Hill or in the suburbs of Chapel Hill?

Robert Hummer: Yeah, we live in Chapel Hill. That's where I'm sitting right now. And...yeah, bought a house here and made it our home. So, it's been a little bit over 10 years now, and I've fully enjoyed living here, working here. My wife Dawn has had a great career; she's an artist here. And our kids come to visit, and they really love visiting Chapel Hill as well.

John Weeks: It's a beautiful place. My younger son got his doctorate there, and so we've had a chance over the years to see Chapel Hill from a close-up view, and it really is a nice place to be, no question.

Robert Hummer: Yeah, it is.

Dennis Hodgson: I've got a question. In the context of your movement from place to place, when did this focus on population health come about? Because when I think of you, I think of population health, and I'm curious about exactly where in the context of your career that focus came into play.

Robert Hummer: Yeah, that's a great question, and I'd really say a couple of things. The first was, again, going to graduate school at Florida State in 1988. I went...unbelievably naïve, and I thought I wanted to be a sociology professor at a place like Adrian

College that had 1,200 students and professors taught. And it's hard to believe; I really didn't know that professors did research. The only professors I'd met in my life were at Adrian College, and they taught lots of courses. And so, when I got to Florida State, I just thought you just did sociology. And in my first semester there, when Ike Eberstein hired me on that project to work on infant mortality in Florida, it just opened my eyes to this kind of population health.

We didn't call it "population health" at the time, but it opened my eyes to mortality. And it resonated with me because high rates were bad; low rates were good; disparities were unfair, and I understood that. And so, that was a big part of it. And then, I think I really did a lot of work with mortality for – it was probably 25 years...and less so in the last 10. But I really did a lot of work in mortality. Same thing: High – bad; low – good; disparities – unfair, looking at trends and causes and so forth.

But over the years, I came to understand that studying mortality, scholars need to understand health as well and what goes on outside and inside the body to produce high and low rates of mortality and so forth. And so, the second piece of it – that kind of studying more of the social and biological processes of health – has really been facilitated most by my work here at UNC with Kathie Harris. And also Allison Aiello who is an epidemiologist, and Eric Whitsel and others here at UNC who have really taught me kind of how to use data and think about data and better understand the health processes associated with mortality as well.

Dennis Hodgson: Now, being of a generation or two before you, when I was in grad school, there was no such thing as population health, and there was very little emphasis on even mortality. So, in your mind, is population health sort of a specific field of research or study with its own methodology? Or is it just a subject matter--what one is studying? Has it become sort of a real subdiscipline of sociology, demography, what have you?

Robert Hummer: Yeah. I think it's a subject matter. In my view, I think it really fits within the PAA umbrella. Sam Preston [PAA President in 1984] wrote something in a textbook. It was like a one-pager that kind of described his career and his interests in population health, and it was a demography textbook; it was the UMass Group. I feel bad; I'm blanking on the names right now. (Note: Jennifer Lundquist, et al.). But his description – he said something like, "It's our time as demographers to work on population health. This is really an important part of demography that maybe we haven't done as much with over the years with aging populations all over the world and with continued disparities at home and all over the globe. This is our time to work on this."

And I really agree with him, unsurprisingly, on that. So, I think it's a subject matter. It does bring in some tools from epidemiology and biology just like demography does. I ended up writing a book on population health with Erin Hamilton, and I really think of it as a part of demography and sociology that brings in tools from elsewhere. But it's a subject matter in my view.

Dennis Hodgson: But in your presidential address, it's so clear that you're connecting it to

stratification, race...Your analysis of ethnic/racial health differences really becomes a vehicle for dealing with institutionalized racism, and you're explicit about it. Is it possible to do a PAA presidential address, like you did, in the current atmosphere? It's a tough question. You don't have to answer it. I don't know.

Robert Hummer: No, I'll answer. Is it possible? Yes. And I think we should, as scholars, tell the truth. Going to my address a little bit, I really felt compelled from deep in the heart, and then from a scholarly angle as well, to really not only talk about population health in the United States, but really to focus on ethnic/racial disparities and racism and call it out in a way that I don't think...not only demography, sociology, but broadly the scientific community had not done as much as should have been done for many, many years, decades, centuries. And so, clearly the current context has made that kind of work much more difficult, unfortunately.

But I continue to hope and think that we should focus on what matters in the world – whether it be fertility, migration, mortality, population health, family planning, whatever – and bring to light our best theory, data, methods to shed light on what's important.

Karen Hardee: Can I follow up on that question? What would you put in your grant proposals? What words would you use now in your grant proposals?

Robert Hummer: Well, I was working on one this morning...for NIH. And it's clear that, I think, in order to be funded, that we – at least with federal government funding – need to be very...

Dennis Hodgson: Careful.

Robert Hummer: Careful with language at this point in time. So, my wonderful program officials at NIH have been helping me and others with that question.

Karen Hardee: Thank you.

Robert Hummer: For example, racial and ethnic health disparities are fine to work on. The contextual factors that are important for racial and ethnic health disparities are fine to work on. The proposals are difficult to...They're always difficult to write, but they're especially difficult to write right now. But in order to keep doing the science at all, I think we've got to adapt a bit in the moment...in order for the work to carry on...in some ways.

John Weeks: In terms of talking to your people you know in NIH, the last time I looked – and I haven't looked for a couple weeks – but there actually was no roster list for the population study section at NIH. Has that changed? I mean, are they actually moving ahead with processing grant applications?

Robert Hummer: Yeah. So, as of today, right now, no...but hoping that this is only a temporary shutdown. I don't work for NIH or federal government, obviously, but the processing has continued. The proposal I'm working on right now was actually a

call from the NIH—an RFA (Request for Applications) for the next wave of Add Health...that I and my team are responding to. So, yes. And just recently – maybe in the last three or four weeks ago or so – future President of PAA Elizabeth Frankenberg, my wonderful colleague at UNC...She just got elected to become president of PAA for – I think it's 2027 or '28, something like that. Twenty-seven. We got funded on a NIA (National Institute on Aging) center grant.

So, we got the notice of award for that. She's the PI of that. And so, things are happening. Just right as of yesterday, the government shutdown, of course, is throwing a monkey wrench into things. So, we'll see how things unfold there.

Emily Merchant: I have a related question. So, in your PAA presidential address, you said that it's really important for demographers to examine racism, the effects of racism...because demography has this kind of special ability to speak to power. And I totally agree with you, but I'm wondering if you could say more about why demography has that special ability.

Robert Hummer: Yeah. Thanks, Emily. I really think so for several reasons. But for one, as scientists, I think we have credibility. We kind of have established this area of science...in the sense that we bring the best data and methods and careful attention to both description and explanation as possible. There are many wonderful characteristics of demography, but one of those is the care with which we do our work. And so, I think that's one of those.

And going along with that, second, I would say that the representativeness of our data and methods that when we...Not all of the work that demographers do is population representative, but a lot of it is. And whether you're looking at country X, Y, or Z or different states or – in my case, a lot of my work has been US nationally representative – we're trying to tell the truth for carefully defined populations. And so, I think given the care with which we do our work and the kinds of data that we use, the kinds of methods we employ...I think those factors go into explaining why I think we have a special place at the table for all the work that we do, frankly. But what we do, I think, is really important. Because we're, again, really trying to get as close to the truth as possible about what's going on in defined populations.

And whether that be on population health or racism and health or migration patterns or fertility or so forth, I think those special characteristics of demography really give us credibility.

John Weeks: Well, and that kind of speaks to one of the things that we on the committee have talked about quite a bit over time, which is that demography really is related to everything. And so, I mean, Emily talks about that in a paper that she put up a link to on chat [*Emily Klancher Merchant & Carrie S. Alexander (2022), "U.S. demography in transition" Historical Methods: A Journal of Quantitative and Interdisciplinary History, 55:3, 168-188*] about how demography as a field has changed quite a bit over time in terms of what the emphasis is. And I think if we ever did a study of the topics at the PAA annual meetings, we would be able to see that as well. And as we get to your time as president and your contributions,

we do see exactly as you're saying – that we need to encompass all of these things. Because that really is what demography is all about; it's all about everything.

Robert Hummer: Yeah. I agree with that. I also think we've got a special core. I talk to my students a lot and say, "At its heart, we're born, we move around, and we die." And those are critical population processes that I've learned from – John, your book – and from the field as a whole. But closely connected to those core processes are of course, for example, sexual behavior and families and contraception and population health associated with mortality and migration and composition, and then social stratification associated with all of those processes. So, I think it's hard to draw that kind of thing, but we've got this core and these special methods and data, and then we move out.

But I think that demography involves kind of life itself ... that is true. I mean, you can't study fertility, mortality, migration, and associated processes without kind of thinking holistically and across many disciplines as well. It's a really special field in many ways.

John Weeks: And thinking about...you're talking to your students about this. Now over time, both at Texas and now at Chapel Hill, what have you been doing in terms of mentoring students to go out into the field and do things?

Robert Hummer: Yeah, thanks for that question, John. So, I'll break this up into maybe three parts. At the undergraduate level, I've had amazing students throughout my career. I've taught courses that you might expect, like Intro to Demography at the undergraduate level and some Intro to Sociology and some Statistics. But then over the last 10 years or so, I helped develop a new major at University of Texas called Health and Society, and then here at UNC as well, a minor in Health and Society. And I've been teaching an Introduction to Population Health course of 400 students once a year. So, it's in one of these big theaters, and I really enjoy that.

It's exposing students to – usually they're freshman, sophomore level...and exposing them to a little bit of demography as well as getting them interested in issues of population health, of health disparities, of healthcare costs...And so, I think that's been a big success. Last semester, in the spring, I taught it at 8:00 a.m. on Tuesdays and Thursdays, and there was a huge waiting list for an 8:00 a.m. course. I mean, they are really into this right now. It's a lot of pre-meds, but it's also students from all over the board, so...I've also enjoyed, at the undergraduate level, a lot of mentoring of honors thesis students. I've got three of them right now, as a matter of fact, who are in their senior year.

They write an honors thesis, and it's fun to teach them how to do research for the first time and how to ask a question and how to do a lit review and get ahold of a little data and answer that question and so forth. Some of them go on to graduate school or med school or wherever, but that's been a lot of fun as well. At the graduate level, especially, I really started mentoring students at UT Austin and then here at UNC. I've been so fortunate. I've had – I think I'm getting close now to 40 PhD graduates...36, 37, something like that – who have finished up, that

I've been advisor to...and another 60 or 70 committees that I've been on.

And many of those students have gone into academia, many in the US – places like University of Colorado or UC Davis, Princeton, Michigan, Ohio State, Texas A&M...all over the country. And then others internationally as well – in Mexico, Brazil, Japan, Taiwan, and others that I'm forgetting. I always say that the best part of the job is being both challenged and challenging them in class, learning together but then helping them to develop their dissertation projects and to see them through. And it's a joyful event, always, to go to graduation every spring and hood those students. And I stay in touch with almost all of them over the years, and it's been a joy to watch their careers develop.

And then over the last 10 years or so, I've had just seven or eight postdocs as well that I've mentored, and those are folks that have finished their PhDs and fortunate to want to work with me for a couple years. And often, again, it's a win-win situation. I learn a lot from them, and hopefully vice versa. And those postdocs have really enriched my research life, and I provide them a little bit of insight to further their careers, and they've all gone on to academic positions and are doing well. So, going back to Florida State, I was just so lucky to just get scooped up by Ike Eberstein and Charlie Nam...just through no insight of mine. And maybe the only thing I did was kind of ran with an opportunity once I got it.

But I was also privileged in many ways – race and sex – and that was true as well. So, one of the things that I've also tried to do throughout my mentoring career is to mentor students who oftentimes are from disadvantaged groups too. And all of my students have taught me so much, and hopefully vice versa a bit as well.

John Weeks: Thinking about the postdocs, am I right that they are typically funded by NIH or some other organization?

Robert Hummer: Yes. Typically, the ones I've had, we've got – both at UT Austin and at UNC – institutional training grants. They're called T32s. The one I co-lead here at UNC has seven predoctoral slots and two postdoctoral slots. And so, we apply for those institutional training grants every five years, and they're competitive, and you try to renew them. And so, many of the postdocs I've had – and some of the predocs – have been funded by those institutional training grants. And a few other times, students have applied for it and gotten their own funding through NSF or NIH.

And so, individually-based training grants that they apply for and say, "Hey, I want to work with [me] or at some university," and they apply for it. And it goes through and gets funded, and they come. So, that's been the case a couple of times as well.

John Weeks: And now, the Carolina Population Center has a history of also recruiting students from outside the United States. Have any of those students been involved in your research and then taken that back to where they came from, or not?

Robert Hummer: At UNC – I'm trying to think – I don't think so. I'm going through my roster right now as we're speaking. No, let me take that back. Yes, I have one right now – a

student from China who's working with Add Health data and has been great. So, what he does when he finishes, I'm not sure yet; he's still a couple years out. And...that may be it right now. Going back to my days at UT, I had a lot of international students there, and many of those have gone back to academic appointments again. In Mexico, Joe Potter got me involved with some students working in Mexico and Brazil, and that was a great joy.

And those students have gone back to their home countries to become academics there and took back a good bit of what we learned together. And I've had amazing students from Japan, Taiwan, and South Korea who've learned a lot and taken back great lessons. Almost all these former students continue to be involved in PAA as well. I get to see them on an annual basis as well.

John Weeks: Yeah, that's very nice.

Win Brown: If it's okay, I would like to take you back to your childhood because it sounds like you had a unique childhood. You were partially raised – probably not for too many years – on the east side. That's a tough part of Detroit back then. Your parents were Kennedy Catholics. So, my question is: Were they progressive Catholics in the context back then? And were you politicized pretty early on based on your parents and what they were doing, how they viewed politics, their view of the Kennedys, and kind of where you were brought up? Because you must've seen some stark differentials just in your neighborhood. Did that launch you in any way toward a progressive political outlook? Or were you just a normal kid, and everything seemed normal, and you picked it up much later?

Robert Hummer: Yeah. That's a great question, Win. I would say I was not personally politically active, involved, or even very aware until, really, I became a young adult. It was really going to graduate school, to be honest. Sure, my parents were very influential. They were extremely – my dad especially – extremely involved in the union. He was a teacher, but he went on strike five times in the 1970s as a part of the teacher's union; he was working in the Warren Consolidated School District. And he was one of the really active members of that union. And he was always saying how much teachers were undervalued, underappreciated, underpaid, and they were willing to strike and take risks to do this.

So, that, I think, was really important. On my mom's side, she was always very proud that her parents were Polish and that my grandfather worked for Dodge and my grandmother was a teamster working in a warehouse and that they were union members. And so, that part of it was that kinda strong, union, blue-collar ethic was really imprinted on me. On the other hand, I think in many ways my parents were very strict Catholics and social conservatives in other ways...regarding birth control, for example, and abortion access and rights. But I think all that was influential, of course, as I learned later on.

And then in terms of race and racism, even though I was raised as a young kid on the east side of Detroit, even the neighborhoods were very segregated back then; the east side of Detroit became virtually all Black shortly after my parents moved. But we rarely had contact with Black people at that time. But I think that also

made an impression on me. I majored in sociology as an undergrad, and even though I didn't become politically active at all, some of the questions I had about the world included, "Why do Black people live here, and White people live here?" and how to make sense of this odd world that we're living in.

So, I think in health, my colleague Mark Hayward at Texas who I worked with and was...He talked about the long arm of childhood in terms of health and kind of what we experience as kids and how that influences what goes on later in life through multiple kinds of mechanisms. But I think that's probably true in our careers as well – that the things that we grow up with and that we're informed by go on to play out as well. So, I hope that's answers a bit. But I probably don't know exactly how my upbringing...I will say, Win, as well – the last thing here – I mentioned I've got five siblings – six of us. And my siblings have been very influential, too...close with them, even though we live mostly quite far apart.

And in many ways, our parents were super busy and just trying to work enough to get food and so forth. And we lived in a very rural area after we moved out to Macomb County. It was the six of us. We were a little group, and we didn't really have friends close by or anything like that. And there were farmers around, and we weren't farmers. And so, it was really just the six of us that were just kind of in a little tight-knit group, and I think we've bonded a lot together over kind of our – in some ways, I think – unique childhood and experiences.

Dennis Hodgson: I've got a question about sort of the future direction of research, particularly in the context of population health. You mentioned you're in the process of writing grants these days, and I like when you went back to the beginning. At Florida State, you got into infant mortality, and it was so easy. "High infant mortality is bad; low infant mortality is good." And when you think about your answer to Emily's question, that was the power of demography. These are hard numbers. Everyone can understand dead babies, living babies, etcetera, and there's a general consensus. Now, if you think about public health in general and social epidemiology, it's all based on the analysis of differentials.

You did a wonderful job in your presidential address. The US is lousy with respect to advanced societies in terms of life expectancy, and you've got to explain that differential. When you look inside the US, you see monumental differentials that understanding them can help you come up with policies that could lower that range. Add Health is really interesting because over time, Wave 6, you've got so many variables. Now, you've got biomarkers, and you've got community-based measures, etcetera. When we write up research proposals for the future, what kind of narrative in today's context are we likely to do?

We're going to study differentials, but we have this vast range of variables we can focus on to explain the differentials. Might we be sort of pushed in a direction of...not totally ignoring but downplaying the importance of certain variables and focusing on other variables that are less politically sensitive these days?

Robert Hummer: Yeah. That's a great question, Dennis; pertinent to the work I was doing this morning and...So, just as a little bit of background – yes, I'm working with a great

team on the Add Health Renewal Project. And Add Health began in the mid-1990s as a study of adolescents Grades 7 through 12 in the United States in the mid-1990s. And turn the clock ahead 30 years later and do the math, and those folks are in their mid-40s now. And so, the proposal we're writing is looking ahead and saying, basically, the next wave of data collection – they'll be 50 years old on average, with ages between 45 and 55.

And so, framing that work and, “Why do we need such data?” and “What are the major pitches, if you will, to make that study work?” Well, as you so eloquently laid out, US population health is not good given we've got virtually all the money in the world. And our health statistics are not great not only in terms of life expectancy, infant mortality...but access to care, maternal mortality, levels of obesity, drug use, and so forth. It's not one issue; it's a range. There's a lot there. And what we have in Add Health is this cohort that's passing through time and experiencing all of these issues. And so, if we think about the life course, they grew up in a time where the HIV/AIDS epidemic was unfolding.

As young kids, the opioid epidemic was unfolding. I say in my talks, “This is the first cohort in human history that's lived their full lives in an obesogenic environment.” And so, we've never seen this before in human history. And then, they've lived through wars and Covid pandemics and the Great Recession and other recessions. All cohorts are interesting, but this particular one is born in the late 1970s, early 1980s; it's been fascinating to study them and see them move into adulthood...So, part of it is really telling that story – that we've got this cohort here who's been incredible to follow. But disparities are a part of that, and there's no way around it. But it's not only by race and issues of racism.

It's sex and gender and sexual orientation. It's urban/rural disparities and widening socioeconomic disparities as well that, depending on people's positionality, this cohort's experiencing life in quite different ways. So, that's part of the story, too. And then looking ahead, I think one of the things that NIH in the moment – and has been for the last 10 years or so, but looking ahead, is really interested in – is Alzheimer's disease and related dementias. And so, Add Health – in the current wave that's just ending, in the wave that we're applying to – is mostly funded by NIA: the National Institute on Aging.

And in fact, one of my big challenges when I became director of Add Health was to transition Add Health from an NICHD study to an NIA study. And so, we are thinking about these issues, for example, of social stratification, drug use, obesity, and their impacts on the cardiovascular system. And on inflammation and on brain health and how these life course issues – as I've talked through here – are going to potentially unfold for this cohort in ways that could be very costly to the US government and population as a whole...very tough on individuals and on families. And we need to learn more about the kind of physical health, the cognitive health...physical functioning of these folks.

So, we're doing some incredible things. I mean, we're collecting cognitive data both in-person and through digitally assessed tools, on phones and iPads and laptops. We're doing hearing exams. We're doing sit-to-stand tests for physical

functioning – how many times and how quickly people can get up and down – these kind of things. And we’re collecting a range of biomarkers; some of the latest biomarkers for risk for Alzheimer’s that we’ve never had before in a population representative sample at such young ages.

So, what we’re trying to do is to help our society as a whole kind of figure out who’s at highest risk, who’s at lowest risk for cardiovascular health, for immune functioning, for brain health as this cohort gets older. And what can we potentially do policy-wise, program-wise, or just to inform the public about prevention for the future? So, that’s kind of, in some ways, how we’re selling the project. I really think it’s an incredible project that Dick Udry (another former PAA president—in 1994), Barbara Entwisle [PAA President in 2007], Kathie Harris [PAA President in 2009], Ron Rindfuss [PAA President in 1991]...Peter Bearman was not a PAA president, but they were all involved in founding Add Health.

And we’ve transformed the project in such ways that we think it can have a major impact on the understanding of health and hopefully have implications for health policy in our society that is not a healthy society. Yeah.

Emily Merchant: I have a related question. So, Add Health...it’s such an amazing treasure trove of data with particularly these longitudinal datapoints. And so, what I’m wondering is whether demography – or the social sciences in general – whether we already have the analytic tools that we need to adequately analyze all of these data, or whether we need new tools, and where those new tools might come from.

Robert Hummer: Yeah. That’s a great question, Emily, and probably one that I’m not super well suited to best answer. I joke with my students, but it’s largely true; I do crosstabs. But there’s a lot of power there. But I do think we need more-advanced tools. Using the tools we have in Add Health, we’ve got genetic data all the way up to state policy data for these individuals who are passing through time, and we have intergenerational data. How do you analyze all that and put that together to understand who’s at highest or lowest risk for some outcome? And so, yeah, I don’t know how to do that kind of work.

But I think about these kind of AI tools or supercomputing tools that – I’m kind of out of my league here – but that the newer generations of scientists are really going to need to use and/or develop to analyze these very complex data in ways that will make sense. So, I think your question is spot on. I don’t at all know the answers, but I really think...we should train people to think about questions and answers and tools that could tap into these kind of data, like Add Health. Yeah.

Deborah McFarlane: I have a question. In your view, what role does and should demography have in public policy?

Robert Hummer: Great question, Deborah. I think it’s, in my view, a big role. I think we have credibility. We oftentimes have data that are representative of populations. We’re careful. I think demographers have kind of earned – and I use that word intentionally – kind of earned the kind of credibility that we can be believed and listened to because we try our best to tell the truth (or as close to the truth as we

can get) using carefully designed data collection efforts, analysis, and the representativeness of our data. So, in that sense, I think we should really have an important seat at the public policy table.

There are clear exceptions, but a lot of our work as demographers doesn't necessarily analyze, "If we change X, how will Y change?" There are folks among us who do that and do that very well. But at the same time, I don't personally think that we need to have the best causal evidence to make an impact on public policy. Oftentimes, what we have is really clear observational evidence. And when we see something wrong – mortality rates going up, disparities getting wider, or life expectancy going up in a good way – can we bring evidence to the table that sometimes, while not causal, is really tight observational evidence? And I think the answer there is, "Yes."

And in that sense, I think we have a place at the table to make important impacts on public policy.

Deborah McFarlane: Do you think that demography should be pushed in a direction that looks at policy processes more?

Robert Hummer: Oh. That's a hard question. Yeah, probably yes. Again, I can think of some of my own colleagues and many people at PAA, for example, who do that kind of policy change work. Greg Duncan [PAA President in 2008] gave a great PAA address back – whatever, 15, 17 years ago – on these kind of issues. So, we're not devoid of that kind of work at all at this point. But to get to your question, I think we have a lot to offer. And sometimes, maybe we may not know how to impact public policy. "Who do we go to? Do we work with policy makers themselves? Do we work with the PRB? How do we do this work?" I'm not sure myself.

But perhaps training programs here, all over the world...could and should think through, "How can we best use the careful evidence that we develop and bring in new tools to have a more prominent seat at the public policy table?" So, my guess is yes, that additional coursework and graduate programs – sessions at PAA and so forth – would probably be useful. Yeah.

Deborah McFarlane: Thank you.

John Weeks: Kind of related to that, you were talking about the role of PAA. And so, I think we've got coming up October 8th (if I remember the date right) of PAA members heading off to talk to members of Congress. And I'm wondering, through your time as president – and I know you've been on a lot of committees and the board at PAA – how much influence can we have as demographers?

Robert Hummer: Yeah. That's a great question, John. I think there's potential there. Because again, I think we do great science; we have wonderful data; we're careful. So, I think there is potential there to be listened to and to make an impact. And I think we have in some ways around the world...in our own country here. The political context is always a question. The kind of evidence that we bring – is it possible within a particular context to make an impact? And that question is probably a

hard one and maybe can't...But we touched on earlier that demography encompasses so much beyond fertility, mortality, and migration – that we go to health and reproduction and family life and inequalities.

And so, I think we bring a lot of interest and great data and important findings on...the processes of life that are important for everybody around the world. So, why shouldn't we potentially have important impacts on policy? We've got a lot to be proud of, but also maybe a lot – Deborah's question about, "Can we step up our policy game?" And maybe that's important to do in the coming generations too, to think of broadening our training programs and reach to have influences where, if we've been too shy or conservative in the past, maybe we could make greater impacts. But I think we have the tools, the data, the findings to do that.

John Weeks: Well, that's good. And I was going to ask you too about when you're talking about population health, which you emphasized strongly in your presidential address, and you were talking about programs and health and society. When you talk about population health and health and society, are you also incorporating reproductive health into those analyses and discussions?

Robert Hummer: Oh, absolutely. Yeah, core part. It's just...yeah. I mean, we can't do population health without reproductive health. Yeah. Yeah, no question. It's not an area of research that I've focused on very much, but that doesn't matter. That's a core part of the puzzle, for sure.

John Weeks: And thinking about policy, too, and thinking about you growing up in Detroit, and thinking about the discrimination, I think about Ren Farley and his contributions as past PAA president [PAA President in 1988]. I mean, I think without Ren Farley's work, we wouldn't have a lot of this research and policies that we have today about institutional racism, which you talk about strongly in your presidential address as well.

Robert Hummer: Yeah. I've gotten to know him a bit. We have that kind of Detroit connection together and Detroit Tigers fans through and through and through. And one of my memories from the PAA in Detroit in, I think it was 2009, was in the Renaissance Center in the headquarters of General Motors. And it was so quiet that there was nothing going on. General Motors was a huge corporation, and there's nobody coming and going. And I think they declared bankruptcy weeks after that or something. It was right around that time in spring of 2009, I think. And Ren had a bus tour of Detroit at the time, which I went on. And he narrated the whole thing, and we drove close to – not by--my house, which still stands.

There are not many houses left where I was a young kid, but that house is still there. And...yeah, it was a rough time for the city and the issues of structural racism and loss of employment, and depopulation was really taking its toll at that time. And Ren gave a wonderful history at that time.

Emily Merchant: I went on one of Ren's bus tours, and what was amazing was that he gave out handouts with track level census data. So, as you were driving through the different places, he would tell you where to look and to see the data about those

neighborhoods. And, I mean, just the inequality is so stark.

Robert Hummer: Yeah, I remember. I rented a car and took Jason Boardman, Brian Finch; I think Mark Hayward went with us, and we did a driving tour as well. You go from kind of the east side of Detroit into Grosse Pointe, a very affluent suburb where a lot of auto executives and wealthier people live. And the change is just so striking and so quick and reflective of kind of the unbelievable amount of inequality we have here in the country as a whole. Yeah.

John Weeks: I was struck when you mentioned Brian Finch because I know Brian. He was actually co-author on one of my papers over the years. And you've done a lot of work with Rick Rogers. But you weren't at Texas when he finished up his doctorate at Texas, were you?

Robert Hummer: Rick's been a dear co-author and friend. He recently retired at the University of Colorado. We actually got introduced to one another through Charlie Nam. He was one of my mentors at Florida State, and Charlie had an NIA-funded project on smoking and its toll on health and mortality around the United States, which still claims hundreds of thousands of lives per year. And I say the smoking, but it's really the tobacco industry that has caused this. And Charlie and Rick were working on a project together, and I was hired as an RA in the last year or two of my graduate training. And then, so I got to know Rick in that way, and the three of us ended up writing a book on mortality differentials.

And Rick and I have continued our collaboration, and still, I think we have a paper or two still that we're still working on. I've gotten Rick involved in Add Health data as well. Unfortunately, we've had close to 800 deaths now in Add Health out of... These are relatively young people, but about four percent mortality so far of the cohort of 20,000. And so, we're starting to look at relatively early mortality in the Add Health cohort and some of the adolescent factors that are predictive of kind of early adult mortality. So, yeah, Rick has been a wonderful mentor and friend for a long time now.

Dennis Hodgson: One of our last questions tends to be asking you any advice you could give young aspiring demographers. Will this be a time period where the number of young aspiring demographers who can get funded for graduate school – is it going to shrink dramatically, and will that have an impact on the discipline?

Robert Hummer: Yeah. Yeah, thanks, Dennis. I worry about that a lot. And the numbers could go down if graduate training programs... Not to mention NIH funding, but just we're accepting fewer students into our PhD program in sociology. I've heard that around the country. It could be the case that NSF and NIH and foundation funding is harder to attain for graduate students, and so there could be a decline in numbers. The advice I try to offer students that I work with – and there's still a number of them at UNC – is that we're in an amazing field, that kind of sociology is connected to demography. And “the work you're doing – what you're learning – is important and matters for the world.” And that's not going to change.

And in fact, that could actually be amplified in ways that... we don't know how

things will play out here in the coming years and decades. So, I think that the message would be of perseverance and of, “It’s a marathon, not a sprint.” There are going to be tough times. This is one of them...and maybe the hardest time in my career in terms of academia and the place of educational institutions and trying to find funding and, “Does my work matter at all?” – those kind of important questions. But I do tell my students and postdocs right now, “Do a thought experiment: What if we stop doing what we’re doing? If none of us were doing demography, and the evidence just came to a screeching halt...” okay?

So, that would be terrible. If we can keep doing what we’re doing – even if it’s slowed down, if it’s difficult, and even if very few policy makers are looking at our data or listening to us at the moment...If we can still keep developing the evidence, be credible, do good work, at some point we hope that there’s people somewhere – here, there, anywhere – that will take what we do seriously and listen to us. So, I think my message to them almost daily has been: “Keep at it. Keep doing it. Don’t give up. Might take an extra year or two to get a job, but...” I mean, I just believe in the kinds of things that we do, that it’s important for the world, that it’s important to be building a better world.

If we work on inequality and health and reproductive rights and infant mortality, what could be more important than that? And so, let’s keep at it, even under really difficult conditions.

Dennis Hodgson: Great advice. Thanks.

John Weeks: Are there any questions that you thought we would ask or should ask that we haven’t asked that you want to make known to us?

Robert Hummer: One thing, and I’m just going to comment very briefly. I thought a little bit about this interview coming up, and I thought maybe the pandemic would come up more so. It was an interesting time to be PAA president. And I got elected in fall of 2019, I think, and then 2020 happens. And poor Eileen Crimmins and Sara Curran put together the 2020 meeting, and there were some sessions that they ended up doing, and it was really difficult on them to not go through with that meeting. And at that point in time, we actually changed the structure so that the president then gave their talk as past president.

So, Eileen ended up giving her talk during the meeting that I organized in 2021 virtually, and then I ended up giving my talk at the hybrid meeting in 2022. So, I think that that helped because there’s an enormous task to be PAA president, with both the organizing the program and keeping association going with the help of the great staff and then doing the talk. So, that ended up working out well. But the one thing I was going to mention is that the 2021 meeting that I organized along with Marcy Carlson, who will be a wonderful future PAA president as well...And we didn’t know what to prepare for in 2021. It was so odd.

But one thing we tried to do is just to keep in touch with the PAA membership, saying, “We will have a meeting. We don’t know what it’s going to look like, but we will have a meeting.” And we were proud that we did. It was, if you remember,

fully online. And it was so funny because we didn't know till the morning of that meeting in 2021, would this work? Would this technology actually work? And we were texting each other like, "What session are you in? What session are you in? Are there people there?" And the staff – Danielle Staudt and Bobbie Westmoreland – they were wonderful to help with the contractors and the Hewlett Foundation. Well, I think that was the next year; they gave a grant to help do the hybrid meeting. It was uncertain, but we got through it. And I think even though the Zoom meeting wasn't anything close to being in-person, we felt very proud that we were able to have a meeting and get the members together, even if it was through the screen. So, that was the one thing that I was going to mention that timing-wise was just...Every presidency has a different issue going on, but that was our challenge.

- John Weeks: And let me say that it went well, because you worked hard to accomplish that.
- Robert Hummer: But it did go well, and attendance was very good. It was amazing. I was so tired at the end of it.
- John Weeks: Of course! Anybody else have any other questions that we should've asked and haven't?
- Karen Hardee: Well, I was going to bring up Elon Musk and giving UT Austin that money and when non-demographers have the megaphone about demographic issues. But that's probably a whole other conversation. And you weren't there at the time, so...
- Dennis Hodgson: Thank God!
- Robert Hummer: Thank you, Karen. Yeah.
- John Weeks: We'll do a webinar.
- Karen Hardee: Yeah, yeah.
- John Weeks: By the way, excellent webinar that you did a couple weeks ago. That was great.
- Robert Hummer: Thank you.
- Karen Hardee: Yeah, that was really good.
- Robert Hummer: Thank you.
- John Weeks: All right. Well, thank you again, Dr. Hummer, past PAA President, for all you have done, all you do, and thanks in advance for what you will be doing for the field and the world as we move ahead.
- Robert Hummer: Thank you, John. Thanks to the Committee. This was so fun to think through, and I really appreciate your time. I can't imagine myself doing this, but anyway, here we are.

Dennis Hodgson: Thank you for your insight and your honesty. It's very impressive.

Emily Merchant: Thank you, Bob.

Win Brown: Thank you so much, Bob.

Robert Hummer: Thank you all. Okay.

John Weeks: Okay. Thank you all.

Robert Hummer: Bye.

John Weeks: Bye-bye now.

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Race and Ethnicity, Racism, and Population Health in the United States: The Straightforward, the Complex, Innovations, and the Future

Robert A. Hummer

ABSTRACT For far too long, U.S. racialized groups have experienced human suffering and loss of life far too often and early. Thus, it is critical that the population sciences community does its part to improve the science, education, and policy in this area of study and help to eliminate ethnoracial disparities in population health. My 2022 PAA Presidential Address focuses on race and ethnicity, racism, and U.S. population health in the United States and is organized into five sections. First, I provide a descriptive overview of ethnoracial disparities in U.S. population health. Second, I emphasize the often overlooked scientific value of such descriptive work and demonstrate how such seemingly straightforward description is complicated by issues of population heterogeneity, time and space, and the complexity of human health. Third, I make the case that the population sciences have generally been far too slow in incorporating the role of racism into explanations for ethnoracial health disparities and lay out a conceptual framework for doing so. Fourth, I discuss how my research team is designing, collecting, and disseminating data for the scientific community that will have potential to, among many other purposes, create a better understanding of ethnoracial health disparities and the role of racism in producing such disparities. Finally, I close by suggesting some policy- and education-related efforts that are needed to address racism and population health within U.S. institutions.

KEYWORDS Racism • Population health • Ethnoracial disparities • Add Health • Demography

Introduction

The 2020 murder of George Floyd in Minneapolis and the large racial and ethnic disparities in sickness, hospitalization, and death during the COVID-19 pandemic have brought widespread attention to issues of race and ethnicity, racism, and population health in the United States. Such tragedies have also fed into the country's already poor population health profile and very wide health disparities. At the same time, some leading politicians have denied the existence of systemic racism in the United

Note This essay represents the revision of my Presidential Address given at the 2022 annual meeting of the Population Association of America, April 8, 2022, Atlanta, GA.

States, and others have proposed or helped pass laws to regulate what can and cannot be taught in schools regarding race and racism. It is clear, then, that we are at a crossroads if we want to better understand racial and ethnic disparities in health and other dimensions of social life in the United States. Hence, it is as important as ever that the population sciences community weighs in and develops a better understanding of the issues and facts at hand and works to ensure that our research findings help educate the public and inform policy in the effort to eliminate health disparities and help create a better society for all.

In this essay, I make the case that the population sciences community has a central role to play in this critical area of societal concern. Our serious engagement in this area is of the utmost importance for at least three scientific reasons. First, U.S. population health is poor relative to that of other high-income countries, and racial and ethnic health disparities are wide (Becker et al. 2021; Woolf and Aron 2013). Second, while population scientists have for decades led the way in accurately describing racial and ethnic health disparities, that task is as challenging as it has ever been and our expertise is especially needed. Third, at the same time, the population sciences community has fallen short in incorporating the concept and role of racism in understanding racial and ethnic health disparities; that needs to change. Beyond scientific reasons, there are also moral reasons to engage in this area of work. Indeed, health disparity statistics are not simply numbers; those numbers represent lost lives and human suffering for sizable groups of people. There is profound injustice in such disparities that demands our attention.

Drawing on the foregoing issues, my essay is divided into five sections. First, I describe the enormous contributions that population scientists have made and continue to make regarding the documentation of racial and ethnic disparities in U.S. population health. Second, I argue that such seemingly straightforward description is both complicated by and can also be clarified by attention to population heterogeneity, time and space, and the careful measurement of both race and ethnicity and human health. Third, I discuss the conceptualization and measurement of racism for research on racial and ethnic disparities in population health, which is the scientific frontier in this area of study.¹ Fourth, I summarize data collection work that my colleagues and I are doing in the development of Wave VI of the National Longitudinal Study of Adolescent to Adult Health (Add Health)—work that we hope facilitates the short- and long-term study of race and ethnicity, racism, and U.S. population health. In my brief closing section, I urge the population sciences community to be bold in providing policymakers, students, and the general public with critical data and research findings that can be used to help understand and eliminate long-standing, unjust, and harmful ethnoracial disparities in population health.

¹ I am fully cognizant that race and ethnicity are not identical constructs and discuss them in greater depth later in this essay. However, the racialization process in the United States and elsewhere has created a fuzzy boundary between the two concepts (Williams 2012), making it challenging to empirically capture fully distinct differences between them. I use “race” and “race and ethnicity” interchangeably throughout the essay and use the term “ethnoracial” instead of racial/ethnic to refer to the broad set of categories I discuss.

The Straightforward

Demography as Foundational for Accurately Documenting Ethnoracial Disparities in Health

Racial and ethnic disparities in health and mortality cannot be understood without the tools and concerns that form the core of demography as a scientific discipline (Nam 1979; Poston 2019; Preston et al. 2001; Siegel and Swanson 2004). We carefully construct rates with concerns regarding both numerators and denominators, use statistical tools like standardization to take age differences across populations into account, and produce accurate life tables for the U.S. population as a whole and for its large subgroups. We design our studies to be representative of geographically defined populations and give substantial attention to population heterogeneity within our data. We also pay obsessive attention to data quality and measurement issues, and think about and measure time in the three dimensions of age, period, and cohort. And demographers are careful with regard to issues of causality: we employ causal modeling approaches only when the data and designs are appropriate and use causal language with care. It is the core tools and concerns of demography that provide population scientists with such a high degree of credibility within the scholarly community and among policymakers. Drawing on these core tools and concerns of demography, I now provide a brief overview of current U.S. ethnoracial health disparities.

Racial and Ethnic Disparities in Population Health: A Brief Overview

It is clearly documented that Black Americans have higher all-cause mortality rates at most ages across the life course and live significantly shorter lives on average than White Americans. Figure 1 shows estimates of life expectancy at birth for Black Americans and White Americans from 1900 to 2020. Black Americans lived an estimated 14.6 years shorter, on average, than White Americans in 1900 (Arias et al. 2017). While both groups exhibited substantial increases in life expectancy across the twentieth century and through the first decade of the twenty-first century, the Black–White disparity in life expectancy was still an estimated 3.5 years in 2013 (Arias et al. 2017).

Unfortunately, White Americans exhibited modest declines in life expectancy in the mid-2010s and then a COVID-19-related decline of an estimated 1.4 years in 2020 compared with 2019 (Arias and Xu 2022; Woolf et al. 2021). While life expectancy for Black Americans continued to inch upward in the mid- and late 2010s, they experienced a much more substantial 3.3-year estimated COVID-19-related decline in life expectancy in 2020 relative to 2019 (Woolf et al. 2021). As a result, as the third decade of the twenty-first century unfolds, Black American life expectancy at birth is 5.8 years shorter than that of White Americans (Arias and Xu 2022; Woolf et al. 2021), a disparity similar to what was seen in the late 1990s. Perhaps most alarming, life expectancy at birth for Black males was just 67.8 years in 2020 (Arias and Xu 2022; Woolf et al. 2021), a figure about three years lower than the estimated male life expectancy of 71 in the world as a whole (Heuveline 2022). Unfortunately, the

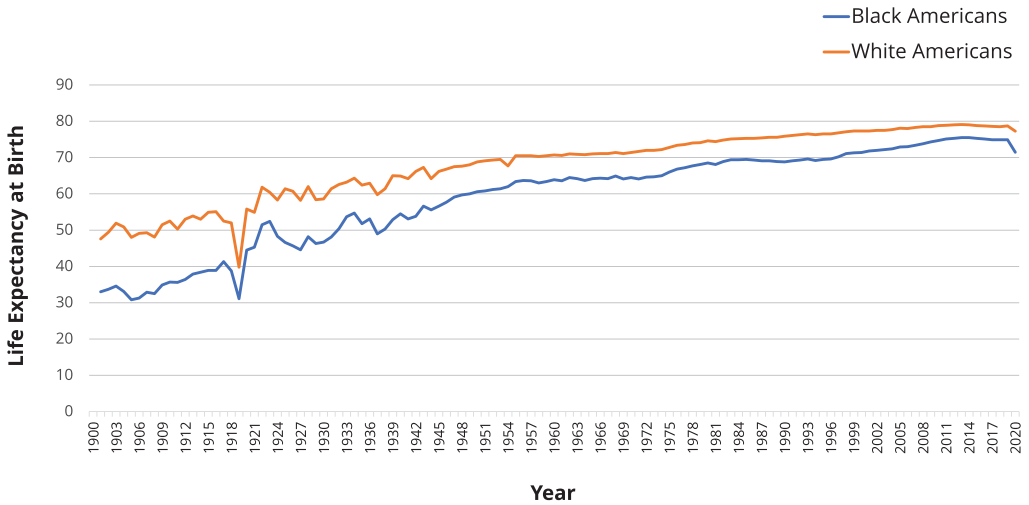


Fig. 1 Life expectancy at birth for Black and White Americans from 1900 to 2020. Prior to 1929, figures are based on select states. Prior to 1970, estimates for Black Americans include other non-White groups. Sources: Arias et al. (2017), Arias and Xu (2020), and Woolf et al. (2021).

Black–White life expectancy disparity is not just a statistic; it reflects excess deaths and tragedy among Black Americans that occur far too early, year in and year out, and represents heartbreak and stress for decedents’ family members, friends, and neighbors (Donnelly et al. 2020; Satcher et al. 2005; Umberson et al. 2017; Wrigley-Field 2020).

The overall shorter lives for Black Americans in comparison with White Americans are paralleled by worse self-assessments of physical health, higher prevalence of morbidity across a wide range of bodily systems, worse indicators of cognitive and physical functioning, and higher levels of disability. For example, Hummer and Gutin (2018) reported age-standardized rates of hypertension, diabetes, functional limitations, and activity limitations among U.S.-born Black women aged 65+ that were 1.5 to 3.0 times as great as rates among their U.S.-born White counterparts. These disparities are not specific to women; they are also wide and nearly ubiquitous for men (Hummer and Gutin 2018). Importantly, the higher mortality rates and worse health of Black Americans relative to White Americans is not exclusive to those aged 65 or older; these patterns are generally mirrored in earlier stages of the life course. For example, although twenty-first-century increases in White American midlife mortality are justifiably problematic and have garnered tremendous research and policymaker attention, the 2021 Consensus Study on High and Rising Mortality Rates Among Working-Age Adults (Becker et al. 2021:401) concluded that “working-age mortality rates were much higher among Blacks than among Whites throughout the 1990–2017 period.”

Tragically, the maternal mortality rate is also 3.5 times as high among Black women as among White women (MacDorman et al. 2021), mortality for Black Americans aged 1–24 is 1.6 times that of White Americans (Rogers et al. 2021; Rogers et al. 2017), and the infant mortality rate for babies born to Black women is

2.3 times as high as for babies born to White women (Ely and Driscoll 2020). Moreover, these elevated mortality rates for Black Americans in early segments of the life course are echoed in myriad worse health outcomes as well, including but not limited to cardiovascular diseases, most cancers, infectious diseases, and many measures of physical functioning and disability (Geronimus et al. 2006; Hummer and Gutin 2018; Williams 2012). Lest anyone think that U.S. racial equity has been achieved or is even within sight, this brief overview should serve to dispel such a notion.

Unfortunately, ethnoracial health disparities are not limited to Black vis-à-vis White Americans. Indeed, data clearly indicate enormous population health disparities between the American Indian or Alaska Native (AIAN) population and White Americans. For example, the inaugural federal government report on the mortality and life expectancy of the AIAN population, using data from 2019, showed that they have, by far, lower estimated life expectancy at birth (71.8 years) than any other ethnoracial group in the country (Arias et al. 2021); moreover, the 2020 COVID-19-induced life expectancy decline was largest (4.7 years) among the AIAN population (Arias and Xu 2022). Earlier, Iliya Gutin and I used data from two large nationally representative surveys to document AIAN population health vis-à-vis other ethnoracial groups for those aged 45–64 and those aged 65+; we also concluded that the AIAN adult population exhibited the worst health profile of any ethnoracial group in the country (Hummer and Gutin 2018). Such poor health for AIAN adults cuts across many diseases, self-reports, and causes of death, illustrating that a narrow focus on improving one or just a few conditions or diseases is not the best pathway to achieving equity with other groups.

In recent decades, Hispanic and Asian American populations have grown the fastest and now account for approximately 19% and 7%, respectively, of the U.S. population (U.S. Census Bureau 2021). Given the rapid growth of these populations, there has understandably been growing interest in their population health patterns and trends as well. And some of the news is positive. For example, despite some data uncertainties, Asian Americans as a group exhibit lower age-specific mortality rates, substantially higher life expectancy, and more positive population health profiles compared with all other U.S. ethnoracial groups (Acciai et al. 2015; Hummer and Gutin 2018). Of course, there are important exceptions and caveats to such a positive broad appraisal. To briefly mention just two: the population health profile is much less positive among Filipino, Hmong, Vietnamese, and Cambodian Americans compared with Chinese, Japanese, Korean, and Indian Americans (Adia et al. 2020; Baluran and Patterson 2021; Cho and Hummer 2001; Frisbie et al. 2001), and population health measures tend to be less favorable among U.S.-born Asian Americans than among Asian immigrants (Hummer and Gutin 2018; Singh et al. 2013).

Heterogeneity by immigrant status and national origin also characterizes the population health profile of Hispanic individuals. Similar to Asian Americans, Hispanic immigrants exhibit lower mortality rates, higher life expectancy, and a generally healthier profile than U.S.-born Hispanics (Alcántara et al. 2017; Hummer et al. 2007; Markides and Eschbach 2005). Indeed, several studies estimated that life expectancy at birth, at age 25, and at age 65 for Hispanic immigrants is 2–3 years higher than that of U.S.-born Hispanic people (Lariscy et al. 2015; Singh et al. 2013). And by national origin, Cuban and Dominican Americans tend to exhibit more positive population health profiles than Puerto Ricans or Mexican Americans (Franzini et al. 2001;

Gutin and Hummer 2018; Markides and Eschbach 2005). Hence, as with all of the large ethnoracial groups discussed thus far, a simple and straightforward description of Hispanic population health is challenging at best.

Nonetheless, overall, the U.S. Hispanic population exhibits some health indicators that are relatively favorable compared with those of the non-Hispanic White population and others that are less favorable. For example, Hayward et al. (2014) showed that while life expectancy at age 50 for both U.S.-born and foreign-born Hispanic populations is higher than that for their White counterparts, unhealthy life expectancy at age 50—which is measured by average years lived with a disability—is substantially higher for both Hispanic groups relative to their White counterparts. Moreover, the COVID-19 pandemic has exhibited some of its greatest devastation on the Hispanic population, as perhaps most clearly and tragically evident in the estimated 3.9-year decline in Hispanic life expectancy in 2020 (Woolf et al. 2021). Such a decline has resulted in the near complete loss of the longtime Hispanic mortality advantage relative to the non-Hispanic White population (Arias and Xu 2022; Sáenz and Garcia 2021).

Finally, the population health profile of the non-Hispanic White population of the United States, which remains the largest ethnoracial group in the country at about 60% of the population (U.S. Census Bureau 2021), is perhaps best characterized by adjectives such as unexceptional or mediocre. Indeed, the 2018 life expectancy at birth for U.S. non-Hispanic White individuals of 78.6, while 3.9 years longer than that for the non-Hispanic Black population, was 3.2 years shorter than that for the Hispanic population. Moreover, the White life expectancy at birth of 78.6 years, if separately specified, would place 29th of the 37 countries in the OECD. Note as well that these 2018 life expectancy statistics were, of course, prior to the devastation of the COVID-19 pandemic on U.S. life expectancy. Similarly, the U.S. infant mortality rate (IMR) per 1,000 live births in 2018 for non-Hispanic White women of 4.63 is substantially lower than that for non-Hispanic Black and AIAN women, modestly lower than that for Hispanic women, and 27.5% higher than that for Asian American women. The IMR of 4.63 for non-Hispanic White women is also higher than that for the average OECD country and, if separately specified, would rank 30th out of 37 of all OECD countries (United Health Foundation 2020).

Overall, this brief description points to two important conclusions echoed in other recent assessments of U.S. population health (Crimmins et al. 2010; Hummer and Gutin 2018; Hummer and Hamilton 2019; Woolf and Aron 2013). First, it is clear that there continue to be very wide ethnoracial disparities in population health that are especially damaging to the Black and American Indian or Alaska Native populations in the United States, but that are also evidenced among particular subgroups of the Hispanic and Asian American populations. Second, even though U.S. ethnoracial health disparities are often gauged in comparison to the non-Hispanic White population, the population health profile of non-Hispanic White Americans compares quite unfavorably with most OECD countries around the world. When U.S. ethnoracial health disparities are gauged with the non-Hispanic White population serving as a reference group, the bar is not high. Together, these summary conclusions also intimate that the context of life in the United States is not conducive to favorable population health for even the most economically, socially, and politically powerful group in the country, a point that strongly suggests major societal changes are needed for the improvement of population health across the board.

Complexities and Clarifications

The foregoing overview, while informative at one level, is limited not only by its generality, but also by my largely ignoring important nuances that are key to more fully understanding ethnoracial disparities in population health and developing a thoughtful research and policy agenda in this area of study. Thus, I focus this section on three issues of complexity and clarification: (1) the conceptualization and measurement of race, ethnicity, and ethnoracial categorization; (2) population heterogeneity and its meaning; and (3) the complexity of human health. I end this section with commentary on the fundamental importance of accurate description in this area of science.

Conceptualizing and Measuring Race and Ethnicity

In an important project that systematically examined published scientific work on race, ethnicity, and population health since 1995 in leading journals of epidemiology, Martinez et al. (2023) showed that the vast majority of papers on ethnoracial disparities in health did not define race or ethnicity or provide readers with any sense of why race and ethnicity are measured as they are. Given the damaging and discredited biological notions of race and ethnicity that dominated American science throughout much of the 1900s (Duster 2001; Frank 2007; Morning 2009), it is crucial that population scientists make explicit what we mean and measure when using the concepts of race and ethnicity (Krieger 2003; LaVeist 1996; Martinez et al. 2023; Roth 2016).

To that end, race and ethnicity are both sociohistorical constructs that vary across time and place (Martinez et al. 2023); they capture social, political, economic, and cultural domination on the one hand, and exploitation and oppression on the other (Williams 2012). The process of racialization, driven by racism, distinguishes the dominant group(s) from those who are exploited and oppressed (Omi and Winant 2015). Racialized groupings are often created around physical characteristics such as skin tone and are constructed and maintained by dominant social groups to restrict and protect valued societal resources, including education, power, privilege, money, space, and time. Ethnic groupings are largely composed around cultural characteristics, such as language, food, and dress, but may also be created around physical characteristics. Because the distinctions between race and ethnicity are fuzzy given that the characteristics used to construct and organize racialized groups overlap with the characteristics used to organize ethnic groupings, I combine the concepts of race and ethnicity into an ethnoracial construct and categorize Americans into the umbrella groupings of Black, American Indian or Alaska Native, Hispanic, Asian, and White (i.e., Williams 2012). Importantly, these are neither biologically based nor static categories, but instead reflect the sociohistorical constructs of race and ethnicity as they currently exist in U.S. society (Martinez et al. 2023). I further recognize tremendous heterogeneity within each of these umbrella ethnoracial groupings; that is, these groups are all internally heterogeneous according to individuals' national origins, language use, social and economic characteristics, phenotypic features, geographic distribution, and more.

Multidimensional Human Beings, Population Heterogeneity, and Meaning

Understanding ethnoracial disparities in health necessitates that researchers recognize that individuals are not one-dimensional racial and ethnic beings. Indeed, our personal identities encompass varied dimensions that include but are not limited to age, birth cohort, biological sex, gender identity, sexual orientation, skin color, other aspects of physical appearance and physical ability, nativity, legal status, veteran status, socioeconomic status, religious denomination, geography of residence, and more. Relatedly, at the population level, racial and ethnic subgroups are not internally homogeneous and comprise people of various backgrounds, characteristics, and statuses who live in varied contexts. Demographers have, of course, long been obsessed with population heterogeneity, even coining a cute phrase for it: “broken down by age and sex.” But population heterogeneity goes well beyond age and sex, not only in terms of the dimensions of identity under consideration but also in the complexity of meaning underlying such heterogeneity. Taking into account such heterogeneity—not only statistically, but also conceptually—is critical in describing and understanding ethnoracial disparities in population health. And while thorough consideration of heterogeneity that takes into account all dimensions of identity is typically impossible even with the largest data sets that we work with, serious attention to heterogeneity and its meanings is always encouraged (Crenshaw 1991).

One example of population heterogeneity that has implications for research in this area focuses on nativity and duration of residence in the United States and how they affect ethnoracial disparities in health. With the substantial growth of the U.S. immigrant population since the mid-1960s, research findings began to emerge—the soundness of which was sometimes doubted—showing favorable population health and mortality patterns among Hispanic immigrants relative to their U.S.-born Hispanic and U.S.-born White counterparts (Elo et al. 2004; Hummer et al. 2000; Markides and Coreil 1986). As this body of work matured, it became clear that not only was the Hispanic immigrant health and mortality advantage real (Hummer et al. 2007; Turra and Elo 2008), but also that foreign-born individuals tended to exhibit better health (with some exceptions) and lower mortality rates than U.S.-born individuals in every racial and ethnic group (Hamilton and Hummer 2011; Hummer, Biegler et al. 1999; Hummer, Rogers et al. 1999; Mehta et al. 2016; Singh et al. 2013). Such findings clearly illustrate that estimates of ethnoracial disparities in health must be sensitive to the immigrant composition of each group and that the immigrant and native-born components of each group should be separately considered in analyses, if at all possible.

Unfortunately, some population health research findings have also suggested that the noted immigrant health or mortality advantage may diminish with increased time spent in the United States (among the immigrant generation) and across generations (Antecol and Bedard 2006; Cho et al. 2004; Hamilton et al. 2011; Jasso et al. 2004; Riosmena et al. 2013). The methods for accurately documenting such population health deterioration have been hotly debated in the literature and remain ripe for continued research; indeed, some studies found a continued mortality advantage among long-term U.S. immigrants (Zheng and Yu 2022). It is also clear that immigrant selectivity—the idea that immigrants are a generally healthy subset of individuals from

sending countries relative to those who do not migrate—is an important explanation for favorable immigrant population health patterns (Akresh and Frank 2008; Riosmena et al. 2017). But in addition, life in the United States, across both time and generations, may not be conducive to the maintenance of favorable population health among immigrant groups. This seems to especially be the case for those who are racialized into racial and ethnic minority groups given their national origin or darker skin tone and who subsequently encounter significant experiences of racism in the United States (Engelman and Ye 2019; Hamilton 2019; Hamilton and Hummer 2011; Hummer and Hayward 2015; Monk 2021; Riosmena et al. 2017; Viruell-Fuentes et al. 2012). Conceptually, then, the immigrant composition of racial and ethnic groups is much more than a statistical issue of population heterogeneity; taking such heterogeneity into serious account involves understanding not only why immigrants tend to exhibit such initially favorable health patterns but why such initially good health may tend to decline over time.

The Complexity of Human Health

Among the many challenges related to the accurate documentation and understanding of racial and ethnic health disparities is the **complexity of human health**. I have intentionally focused thus far on general measures of population health. Such general measures are widely used in the population sciences, in part because they are easier to assess than more specific measures and in part because they facilitate comparisons across ethnoracial groups, time, and space. Moreover, the purpose of the population health sciences is not to cure diseases or treat individual patients, but rather to accurately document and explain the health of the population as a whole and its constituent subgroups so that the information can be used by policymakers and the public for the betterment of society (Hummer and Hamilton 2019). Hence, the widespread utilization of general measures of health in the population sciences is most often well justified and facilitates informed policy and programmatic solutions that focus on the upstream historical, social, and cultural factors affecting the general health of large groups of people in defined geographic areas rather than on the downstream factors related to specific diseases or individuals.

Nonetheless, a sole focus on general measures of health is limiting. Indeed, the COVID-19 pandemic propelled many in our field to focus on accurately documenting infection, hospitalization, and death rates by age, sex, race and ethnicity, socioeconomic status, geographic area, and more. Such a disease-specific focus has been critically important in understanding which groups COVID-19 is affecting most significantly and how solutions should be tailored. Similarly, it is critical that population scientists focus efforts on biomarkers of health that facilitate detection of health disparities and trends prior to the emergence of disease or death (Harris 2010). Our field's expansion of biological health measurement in large population-based data sets has been extraordinary over the last two decades (Harris and McDade 2018), leading to much more refined understanding of ethnoracial disparities in health even when full-blown disease and death are relatively uncommon, such as in young adulthood (Geronimus et al. 2006; Harris 2010; Richardson et al. 2021).

In short, population sciences work on racial and ethnic disparities is needed and important when either very general or much more specific measures of health are utilized. Moreover, the World Health Organization's (2006:1) definition of health—"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"—is important to keep in mind; while I've used a classic demographic measure of population health (i.e., alive versus not) in much of the preceding text, health is much more than simply being alive. Our data collection efforts and analytic focus should account for varied measures of health, including those that are both self-reported and collected via physical measurement or biospecimen; those that are physical, cognitive, functional, mental, and social; and those that may be most appropriate and important in different stages of the life course and among different population subgroups. In addition, the illnesses and diseases that make us sick are not necessarily those that cause us to die. For example, the relatively high life expectancy of the U.S. Hispanic immigrant population is accompanied by very high levels of disability in late life (Hayward et al. 2014; Sheftel and Heiland 2018), most likely because of the tolls that demanding physical labor takes on the knees, hips, and backs of many Hispanic immigrant adults, without necessarily resulting in early death. Accordingly, population health scientists should not fully rely on either general measures of health or specific measures that may obscure large-scale understandings of racial and ethnic disparities; rather, a balance of attention to both general and specific measures is necessary.

The Centrality of Accurate Description

Far too often, scientific work on racial and ethnic health disparities pays short shrift to description and jumps too quickly to explanation and even policy recommendations. Such dismissal of description is a big mistake. Indeed, ethnoracial disparities in population health are neither static across time nor fixed across places. Groups and health patterns change and can sometimes do so quite quickly, as in the case of large immigration flows, shifts in ethnoracial identification (e.g., the racialization process), or new disease outbreaks. And the differing compositions and contexts of places can and do result in ethnoracial health disparities that vary across place and consequently provide important clues toward explanation and effective policy making (Burgard et al. 2021). Similarly, birth cohort after birth cohort experiences life in ways unlike any others, necessitating continued attention to the accurate description of ethnoracial disparities specific to cohort context (Masters et al. 2014). Moreover, population health data are always imperfect and fresh data may shed descriptive light on previously unknown patterns and trends. In addition, population heterogeneity, especially within ethnoracial groups, is typically not accounted for very well, if at all, in work on racial disparities.

In short, a key and critical strength of the population sciences and in demography more narrowly is obsession with getting the facts right. I urge the population sciences research community, funding agencies, and scientific journals to devote serious time and resources toward accurate description of ethnoracial health disparities, and particularly so in a rapidly changing and complex society. Indeed, accurate description necessarily precedes explanation and effective action.

“Innovation”: Incorporating Racism Into the Study of Racial and Ethnic Disparities in Population Health

The population sciences community and much of the scientific community writ large have seriously lagged in efforts toward conceptualizing racism and developing measures of it that may be used in studies of population health. This lag is due in part to the complexity of the concept of racism, which I will discuss below. For now, it is important to note that racism is a multilevel, multi-institutional, historical, and contemporary concept that, if taken seriously, necessitates explicit attention in all steps of the research process in this area of study, including in the questions we ask, the theories and literature we draw upon, the hypotheses we test, the data we collect, the measures we employ, the analytic tools we use, and the conclusions we make. This idea is not new (Horton 1999; Horton and Sykes 2001; Zuberi and Bonilla-Silva 2008). Unfortunately, lagged interest in racism as a central and scientific concept in population health is our own collective fault. Only in the last few years have the most powerful scientific funding agencies, professional associations, universities, and think tanks seriously begun to engage with racism as a scientific and measurable construct that is central to American society. Such long-term institutional- and individual-level neglect needs to change.

Long predating the origins of the Population Association of America, W. E. B. Du Bois was *the* pioneer in studying racial disparities in health and mortality in the United States. His painstaking work provided empirical evidence on the racism-induced social conditions underlying such disparities in Philadelphia and other cities around the country (Du Bois 1906/2003, 1899/2007); notably, he also counteracted racist pseudo-scientific work at the time that attributed disparities to the biological inferiority of Black Americans. Echoing Du Bois, Preston and Haines (1991) much later discussed and statistically modeled the caste-like racial conditions of life in the United States circa 1900, which resulted in enormous racial disparities in infant and child mortality at that time. Efforts toward directly conceptualizing and measuring racism in population health studies finally began to gain substantial momentum in the very late twentieth century and early twenty-first century when a number of scholars pushed scientific thinking and measurement forward in this area of study, roughly 100 years following Du Bois's lead (Bailey et al. 2017; David and Collins 1991; Gee and Ford 2011; Geronimus 1992; Hardeman et al. 2018; Horton 1999; Horton and Sykes 2001; Hummer 1996; Jackson et al. 1996; Krieger 2003; Krieger et al. 1993; LaVeist 1992; Nazroo 2003; Williams 1996; Williams and Collins 1995; Zuberi and Bonilla-Silva 2008). As just one example, Horton (1999:363–364) advanced the critical demography paradigm that challenged researchers to “make explicit the manner in which the social structure differentiates dominant and subordinate groups in society.” Horton (1999) further argued that explanations of population health disparities must challenge assumptions about the way that society is thought to work by dominant groups.

Along with this flurry of largely theoretical papers, other important efforts emerged focusing on the conceptualization, operationalization, and use of measures of racism in population health studies (see Williams et al. 2019 for a review). Most prevalent have been studies using measures of self-reported, individual-level discrimination developed by David Williams and colleagues (e.g., Sternthal et al. 2011)

that have increasingly been incorporated into large-scale U.S. data collection efforts. More recently, such individual-level measures have been expanded to include not only self-reports of discriminatory treatment and its attribution (e.g., to race, immigrant status, sex) but also reports of vigilance, anticipatory discrimination, and vicariously experienced discrimination. Together, these survey-based measures of racism tap into individuals' experiences with thinking about, preparing for, and experiencing everyday racist encounters; they have been shown to exhibit associations with a number of mental and physical health outcomes (e.g., DeAngelis 2020; Hicken et al. 2013; Hicken et al. 2018). Continued measurement innovations are needed to best assess multiple forms and experiences of individual-level, day-to-day discrimination, including the need for greater inclusion of such measures in longitudinal data collection efforts (Williams et al. 2019).

Less prevalent but gaining substantial momentum are efforts to incorporate measures of structural or cultural racism into population health studies (Williams et al. 2019). For example, creative work by Brown and Homan (2021) conceptualized and measured structural racism at the state level and linked the measures to individual-level population health data. Their work documented that structural racism is operating in all U.S. states, but that the level of such racism varies considerably across states. Moreover, they showed that higher levels of structural racism are associated with a number of worse individual-level adult health outcomes for Black Americans but not White Americans. Their study provides the kind of theory-driven, measurement-intensive, foundational work in this area of scholarship that should spur many related efforts in the years to come.

All that said, efforts in conceptualizing, measuring, and understanding the effects of racism on U.S. population health are very challenging. Such work involves conceptualizing and measuring social, economic, political, and cultural contexts that have played out in American society for centuries and that continue to do so, but that are also changing across time and may differ across places such as states, counties, cities, neighborhoods, schools, and worksites. I echo the pathbreakers discussed and cited above in strongly encouraging major research efforts in this area that challenge assumptions, push boundaries, and establish new knowledge regarding ethnoracial disparities in population health through the incorporation of racism into our scholarly community's questions of interest, theories, models, measures, and methods.

Defining Racism

Borrowing from Williams et al. (2019:106), racism is “an organized social system in which the dominant racial group, based on an ideology of inferiority, categorizes and ranks people into social groups called ‘races’ and uses its power to devalue, disempower, and differentially allocate valued societal resources and opportunities to groups defined as inferior.” A critical aspect of this definition is the concept of “social system.” In the U.S. case, such a system was created by European-origin settlers to oppress and exploit the American Indian, Alaska Native, and Black populations, initially through genocide, forced migration, and slavery, and later through the institutionalization of Jim Crow, political disenfranchisement, residential segregation, mass incarceration, and state-sanctioned violence (Alexander 2010; Gates et al.

2012; Hannah-Jones et al. 2021; Massey and Denton 1993). The Hispanic and Asian American populations, depending on time and space, have been subjugated to some of these same systemic practices as well as others unique to their social histories (Dennis et al. 2021). Importantly, then, the concept of racism captures an extremely powerful but time- and space-varying social system that has the potential to influence the health of ethnoracial groups through numerous mechanisms and across many outcomes (Brown and Homan 2021; Hardeman and Karbeah 2020; Hummer 1996; Phelan and Link 2015; Williams et al. 2019). Given the conceptualization of racism as social system that changes across time and varies across space, its measurement is incredibly challenging. Clearly, the comprehensive measurement of racism in the population sciences cannot be limited to individual-level prejudicial thoughts and attitudes and harmful language and behaviors, as important and damaging to health as they may be. Racism as social system requires digging into the social and economic history, institutions, and culture of a society to best understand and develop ways to measure its long-term but evolving dimensions. Included in such a multilevel, evolving conceptualization and measurement are key institutions: government and politics, family, education, health care, the economy, the criminal justice system, the arts, sports, and the media. Given its virtual neglect by the scientific community until quite recently, including in the population sciences, the measurement of racism is still in its infancy. This measurement is a daunting task given the systemic character of racism, but it is integral to understanding our society and likely why our nation's population health is so poor and our ethnoracial disparities in health are so wide.

A Conceptual Framework of Racism, Race and Ethnicity, and Population Health

My latest conceptual framework for understanding race, racism, and U.S. population health is portrayed in Figure 2. I have long used such frameworks in research and teaching to lay out my current thinking on a system of relationships; the figure should not be thought of as a tight causal diagram from which one set of equations may be estimated. This portrayal attempts to incorporate the conceptualization of racism outlined above and its damaging influences on the contexts in which ethnoracial groups live, the resources that groups of people have access to, their social experiences and behaviors, and ultimately the bodies they inhabit.

To start, the bottom half of Figure 2 depicts the individual-level relationship between ethnoracial identity and health across the life course, which is the bedrock of descriptive work in this area and should remain foundational. The box depicting “ethnoracial identity” indicates that the relationship between race and health may be associated with other dimensions of identity (and their related systemic inequities, which I do not have space to cover here). Indeed, as noted earlier, people and groups are not unidimensional and considerations of population heterogeneity and their meanings are built in here. The bottom half of the figure also depicts the important mediating role that socioeconomic resources play in producing racial disparities in health. Over the years, population scientists have conducted important work on estimating the extent to which socioeconomic resource inequities can help explain racial health disparities (e.g., Geruso 2012; Hummer and Chinn 2011; Rogers et al. 2017). Such findings point to key socioeconomic-based policy levers that, *if implemented*, could

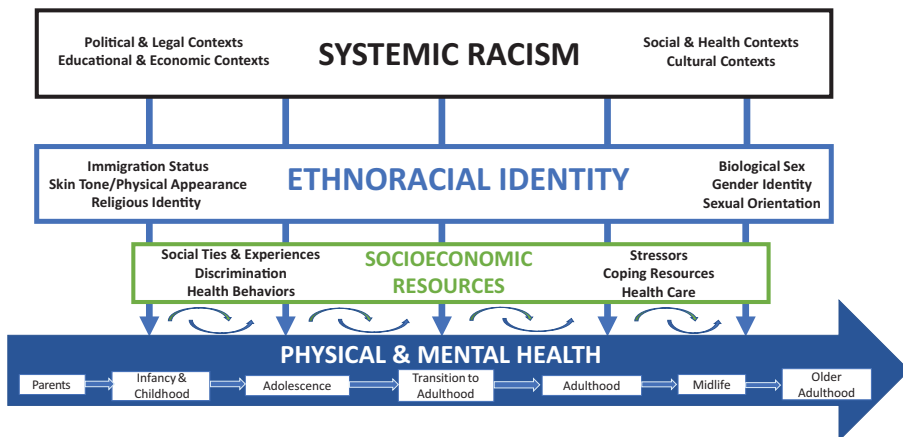


Fig. 2 Conceptual framework linking systemic racism with physical and mental health across the life course in the United States

help reduce disparities. The bottom half of the framework further shows that, beyond socioeconomic resources, other social, psychological, and behavioral factors serve as important individual-level mediators by which racial and ethnic disparities in population health play out. For example, minority group experiences with discrimination and greater exposure to stressors, such as higher levels of child/family loss, have been shown to help account for racial disparities in health (Umberson et al. 2017; Williams et al. 2019). In turn, these social, psychological, and behavioral mechanisms influence population health outcomes. The two-way arrows between these mechanisms and health show that there may also be important interrelationships that unfold between them across the life course, making the collection and use of longitudinal data all the more important in understanding ethnoracial disparities in health (Harris et al. 2006).

Most important, the top portion of the figure specifies that systemic racism, not ethnoracial identity, is the driving force that creates ethnoracial disparities in health across the life course in the United States. It does so through its damaging influences on the contexts in which we live: the creation, maintenance, and enforcement of the laws and policies that govern us; the educational and economic contexts within which we attend school and work; the social and health contexts within which we reside, shop, recreate, access care, and live out our daily lives and interact with one another; and the cultural contexts that define who is and what is important, valued, and meaningful in society. Moving down the figure, these contexts of systemic racism also define and give meaning to the ethnoracial groups we are divided into; indeed, as has long been noted by social scientists, ethnoracial groups are created and maintained by dominant groups exerting their influence on who does and who does not have access to power and resources in society (Omi and Winant 2015; Williams et al. 2019). Altogether, this framework makes the case that systemic racism has created the conditions in which damaged social contexts, unfair resource and power allocations, and inequities in treatment and social psychological resources result in bodily insults over the life course that have negative influences on health, particularly for members of

racialized groups with the greatest exposure to histories of systemic racism. In light of such a framework, our field needs to do a much better job in incorporating measures of racism—at multiple levels of context across multiple institutions—into our data collection and analysis work on racial health disparities in population health.

At the bottom of [Figure 2](#), I show that racial disparities in population health need to be studied within intergenerational and life course contexts. The late James Jackson was one of the pioneers of such thought in the population sciences community in laying out how historical processes and cumulative advantages and disadvantages across the life course likely play into racial disparities in age-specific health and mortality outcomes (Jackson et al. [2011](#)). Arline Geronimus has also been instrumental in this effort, in terms of both conceptualizing the weathering process and measuring it across different ethnoracial groups in the United States (Geronimus [1992, 2023](#)). Our community's research in this area of study needs to do a better job following their leads. Granted, the data requirements are steep. But with advances in the collection of intergenerational, life course–based data sets—such as Add Health, the Future of Families and Child Wellbeing Study, and the Panel Study of Income Dynamics—and the linkage of major population health surveys such as the Health and Retirement Study to U.S. Census records from decades ago (e.g., Warren et al. [2020](#)), our field is developing the infrastructure by which critical intergenerational and life course questions of ethnoracial health disparities can be studied. For example, to what extent do ethnoracial disparities in childhood neighborhood and school contexts—which, of course, are inherited via inequities from the previous generation(s)—matter for later life health disparities? And to what extent are ethnoracial disparities in biological aging processes influenced by both disparities in socioeconomic status that accumulate across generations and the life course and group differences in experiences with discrimination-related stressors? Addressing such questions will provide policymakers with stronger evidence on the *roots* of ethnoracial disparities in health rather than evidence that focuses on *downstream symptoms* of health disparities.

Data Collection for the Future

Putting the foregoing framework into practice, I am currently working in my role as Director of the National Longitudinal Study of Adolescent to Adult Health (Add Health) with a large and exceptional team to collect and disseminate data for the scientific community that will have the potential to, among many other purposes, create a better understanding of ethnoracial health disparities in the United States. As illustrated in [Figure 3](#), Add Health is a longitudinal study of a nationally representative sample of 20,745 adolescents who were in grades 7–12 during the 1994–1995 school year; they have been followed for five waves of data collection to date, with a sixth wave in progress (shown at the bottom of the figure). Over the last 25+ years, Add Health has collected rich demographic, social, familial, socioeconomic, behavioral, psychosocial, cognitive, and health survey data from participants and their parents; a vast array of contextual data on participants' schools, neighborhoods, and geographies of residence; and in-home physical and biological data from participants, including anthropometric measures, genetic markers, blood-based assays, and medication use (Harris [2010](#); Harris et al. [2019](#)). Ancillary studies have added more

Wave	Administrative		Survey Administration		Biological Data Collection
Wave I 1994–1995 (RR = 79%)	Student N = 90,118	School Admin N = 144	Adolescents in grades 7–12 N = 20,745	Parent N = 17,670	Height, weight
Wave II 1996 (RR = 89%)		School Admin N = 128	Adolescents in grades 8–12 N = 14,738		Height, weight
Wave III 2001–2002 (RR = 77%)	High school transcripts		Young adults aged 18–26 N = 15,197	Partner N = 1,507	Height, weight, STI, HIV, genetic (buccal cell DNA)
Wave IV 2008–2009 (RR = 80%)			Adults aged 24–32 N = 15,701		Height, weight, waist, metabolic, immune, inflammation, cardiovascular, medications, candidate genes, GWAS
Wave V 2016–2018 (RR = 72%)	Birth & death records	Sexual Orientation, Gender Identity & Health N = 2,665	Adults aged 33–43 N = 12,300	Parent N = 3,000	Height, weight, waist, metabolic, immune, inflammation, cardiovascular, renal, medications, gene expression, epigenetic, microbiome
Wave VI 2002–2024	Birth & death records		Early midlife adults aged 40–49 Goal N = 13,000		Height, weight, waist, metabolic, immune, inflammation, cardiovascular, renal, medications, gene expression, epigenetic, microbiome, cognitive, physical functioning

Fig. 3 Longitudinal design of Add Health. Each wave also has contextual data linked at various levels. RR = response rate. GWAS = genome-wide association study.

information, including epigenetic, gene expression, and microbiome data. Thus, Add Health is exceptionally unique because it has a rich, multilevel, longitudinal array of data for a large *nationally representative* cohort of Americans who are entering midlife. Importantly, Add Health also oversampled Black, Hispanic, and Asian adolescents in its original design, thus facilitating many studies of ethnoracial health disparities over the years.

As Wave VI data are collected from 2022 to 2024, the participants are 39–49 years old, with an average age of 44. Unfortunately, the overall health profile of the cohort as they make the transition to midlife is problematic across many dimensions. Moreover, ethnoracial health and mortality disparities in this cohort are wide and, in some cases, widening (Becker et al. 2021). Given all of the rich longitudinal data available in Add Health, Wave VI will help to fill a critical need in the understanding of ethnoracial health and aging disparities in the United States. Like previous waves, Wave VI again includes a survey as the core data collection tool; a majority of participants are taking it on the web, while others are taking it in person. The effort also includes the building of contextual data files corresponding to individuals’ geographies of residence; a home exam within which we are collecting blood, anthropometric, and medications data; the collection of both web- and in-person-based cognitive data; and the collection of mortality information for those who died and birth records information for those who consented. We are aiming for data releases in 2025.

Consistent with my conceptual framework depicted in Figure 2, I mention three features of the Wave VI data collection effort that we hope will help the research community better document and understand ethnoracial health disparities in this cohort. First, as has been the case in Add Health since the project’s inception (Harris et al. 2019), we are measuring race and ethnicity in multiple ways, including through self-report of identity(ies) and through self-reported observed race (i.e., the perception of others) (Roth 2016). To further understand the identity of Add Health participants, we are also assessing a range of sociodemographic characteristics, including self-reported skin tone, sexual orientation, biological sex, and gender identity. Such

measurement will continue to provide a range of options for researchers to assess the individual-level ethnoracial identity of participants, as well as substantial individual- and population-level heterogeneity as discussed earlier.

Second, to address one of the main aims for Wave VI, we are enriching content in key domains that will help researchers understand the individual-level mechanisms by which ethnoracial disparities in population health are created. Beyond socioeconomic resources, such measures include a range of employment-related characteristics, individual-level experiences with discrimination across several dimensions of life, a battery of chronic stressors, multiple questions on experiences with violence and interactions with police and the criminal justice system, and experiences with and burdens of caregiving.

Finally, as emphasized in the conceptual framework, we are adding important contextual data coinciding with the timing of Wave VI data collection, with critical attention given to the potential role of systemic racism in influencing the production and maintenance of ethnoracial health disparities. Among the contextual domains we are building and linking to individuals are those focusing on political and legal contexts, educational and economic contexts, social and health contexts, and cultural contexts. Moreover, my colleagues Taylor Hargrove and Chantel Martin are simultaneously leading a study funded by the National Institute on Aging that is building Add Health's contextual database on structural racism going back to Wave I. All told, then, we hope to provide the scientific community with a key data resource for the understanding of race and ethnicity, racism, health, and aging for a long time to come.

Conclusion: Studying Race and Ethnicity, Racism, and Population Health to Educate the Public and Eliminate Disparities

The Human Genome Project was a decades-long, multi-billion-dollar project with the goal of mapping humans' genetic makeup (National Human Genome Research Institute [n.d.](#)); the results were meant to help improve health and well-being for the entire society and beyond. Arguably, conceptualizing and measuring racism and modeling its impact on population health outcomes across the life course is an equally challenging endeavor, given the historical, social, cultural, and demographic complexity of U.S. society (National Academies of Sciences, Engineering, and Medicine [2022](#)), but doing so likewise offers the exciting and extraordinarily important potential to better understand a very important portion of "our societal DNA" (Hannah-Jones et al. [2021](#)). This work is not going to be complete in a year or two or with a few funded projects. And such work will not yield a brief battery of measures that researchers can pull off the shelf and link to their data set of choice; the histories, contexts, and groups involved are too complex for such an expectation. Rather, conceptualizing, measuring, and modeling racism will require a significant and sustained investment of time, money, and sweat that is in its early stages but, in my view, will be well worth the effort. Indeed, the effort will also be instrumental in developing ways to improve the health and well-being of the U.S. population and eliminate health disparities by targeting social systemic changes rather than, for example, medical or pharmaceutical interventions.

At the same time, while conducting our research, we cannot wait to push for social and institutional changes given what we already know about ethnoracial health disparities; lives are at stake. Indeed, we know that racism-induced socioeconomic inequities, while by no means the complete story, are very important in helping to explain racial and ethnic health disparities in our country; hundreds and hundreds of articles have shown this (Phelan and Link 2015). We have a rock-solid case that achieving racial equity in socioeconomic status (educational attainment, occupational status, income, housing, *and wealth*) will move us toward the goal of eliminating ethnoracial health disparities. Thus, policy efforts focusing on the goal of racial and ethnic equity in socioeconomic status should undoubtedly be front and center on the national, state, and local area radar screens. Empirical evidence is also building regarding linkages between individual-level discrimination and health outcomes (Williams et al. 2019). At this critical juncture in time, I believe that population scientists have a growing and important opportunity, and even an obligation, to team up with policy scientists, legal scholars, and activists of all stripes in the effort to help create empirically validated changes in our schools, workplaces, health care settings, and communities.

While I have outlined the major needs in our research community's work on systemic racism and population health, there are some good research-based examples to draw upon in our efforts to advocate for change with the evidence we can already bring to the table. For example, in the area of civil rights, Hahn and colleagues (2018) published an overview of the beneficial impacts of legislation and policy enforcement regarding U.S. population health—a summary that strongly supports advocacy for civil rights enforcement on behalf of the population health community. Other innovative population health work has been published in recent years on, for example, the harmful impacts of racist political rhetoric and targeted immigration enforcement policies on the birth outcomes of Hispanic women (Gemmell et al. 2019; Gutierrez and Dollar 2023; Krieger et al. 2017; Novak et al. 2017); the harmful impacts of mass incarceration on population health, particularly for Black and Hispanic men (Wildeman and Wang 2017); and lower access to care among low-income people—many Black and Hispanic—in states that have not expanded Medicaid under the Affordable Care Act (Cross-Call 2020). As our research efforts on systemic racism and health unfold, it is imperative that we simultaneously collaborate with policy scientists, legal scholars, and advocates to make our work more widely known and impactful, especially so in an area such as ethnoracial disparities in health that is both such a longstanding injustice and for which we bring very credible evidence to the table.

My final comments focus on institutional change, but I will stick to what I know best: undergraduate and graduate education. In the academic community, I think we have fallen short in training undergraduate students on issues of population health and, in particular, on the creation and maintenance of ethnoracial health disparities. I have been teaching an undergraduate course of 300–400 students on population health over the past five years and have witnessed tremendous student interest in both population health in general as well as in ethnoracial health disparities. And beyond teaching a bit about social history, racism, and health disparities, I have even been able to sneak in a little demography along the way. For academic institutions that have not done so, I strongly encourage the development of courses or even programs (e.g., minors or certificates) that include serious content on race and ethnicity, racism, and population health. From my experience, there is considerable student demand

and such programs attract substantial student diversity. Moreover, students need to understand the social histories of racism that have created ethnoracial disparities and are maintaining them, as well as the policy and legal ideas that may help to dismantle them. Political forces are indeed out to thwart such efforts; it is our collective responsibility to ensure that such efforts do not succeed.

At the graduate level, we have an impressive infrastructure of population centers around the country working for us; population scientists have the capability to bring together tremendous social science, history, law, policy, biological, and epidemiological expertise, with a demography core that holds it all together. Many of us were trained in population centers with some interdisciplinary experiences; however, those experiences typically consisted of a fairly narrow range of coursework and research exposure, often centering around sociology and economics. I believe that continued curricular innovation in our graduate programs is especially necessary to develop higher level thinking on, for example, systemic racism (and sexism, heterosexism, nativism, etc.) and how such history is important for understanding current population health disparities and what can be done about them. Population science curricula need demography. Our core is treasured, trusted, and central to the accurate documentation and more complete understanding of population health and health disparities. But demographic training should not stand alone or as a narrow venture consisting largely of sociology, economics, and perhaps a little bit of epidemiology. Instead, a truly innovative interdisciplinary curriculum is needed to best educate students in this and related areas of science and to provide them with the theory and tools necessary to create scientific and policy breakthroughs in the coming decades. ■

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References

- Acciai, F., Noah, A. J., & Firebaugh, G. (2015). Pinpointing the sources of the Asian American mortality advantage in the United States. *Journal of Epidemiology and Community Health*, 69, 1006–1011.
- Adia, A. C., Nazareno, J., Operario, D., & Ponce, N. A. (2020). Health conditions, outcomes, and service access among Filipino, Vietnamese, Chinese, Japanese, and Korean adults in California, 2011–2017. *American Journal of Public Health*, 110, 520–526.
- Akresh, I. R., & Frank, R. (2008). Health selection among new immigrants. *American Journal of Public Health*, 98, 2058–2064.
- Alcántara, C., Estevez, C. D., & Alegría, M. (2017). Latino and Asian immigrant adult health: Paradoxes and explanations. In S. J. Schwartz & J. B. Unger (Eds.), *The Oxford handbook of acculturation and health* (pp. 197–220). New York, NY: Oxford University Press.
- Alexander, M. (2010). *The new Jim Crow: Mass incarceration in the age of colorblindness*. New York, NY: The New Press.
- Antecol, H., & Bedard, K. (2006). Unhealthy assimilation: Why do immigrants converge to American health status levels? *Demography*, 43, 337–360.
- Arias, E., Heron, M., & Xu, J. (2017). *United States life tables, 2013* (National Vital Statistics Reports, Vol. 66 No. 3). Hyattsville, MD: National Center for Health Statistics.
- Arias, E., & Xu, J. (2020). *United States life tables, 2018* (National Vital Statistics Reports, Vol. 69 No. 12). Hyattsville, MD: National Center for Health Statistics.
- Arias, E., & Xu, J. (2022). *United States life tables, 2020* (National Vital Statistics Reports, Vol. 71 No. 1). Hyattsville, MD: National Center for Health Statistics.
- Arias, E., Xu, J., Curtin, S., Bastian, B., & Tejada-Vera, B. (2021). *Mortality profile of the non-Hispanic American Indian or Alaska Native population, 2019* (National Vital Statistics Reports, Vol. 70 No. 12). Hyattsville, MD: National Center for Health Statistics.
- Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: Evidence and interventions. *Lancet*, 389, 1453–1463.
- Baluran, D. A., & Patterson, E. J. (2021). Examining ethnic variation in life expectancy among Asians in the United States, 2012–2016. *Demography*, 58, 1631–1654. <https://doi.org/10.1215/00703370-9429449>
- Becker, T., Majmundar, M. K., & Harris, K. M. (Eds.). (2021). *High and rising mortality among working-aged adults*. Washington, DC: National Academies Press.
- Brown, T. H., & Homan, P. (2021, May). *Structural racism and health stratification in the U.S.: Connecting theory to measurement*. Paper presented at the annual meeting of the Population Association of America. Retrieved from <https://submissions2.miramart.com/PAA2021/Itinerary/SearchHome.aspx>
- Burgard, S., Montez, J. K., Ailshire, J., & Hummer, R. A. (2021). Aging policy from a multilayered geographic and life course perspective. *Public Policy & Aging Report*, 31, 3–6.
- Cho, Y., Frisbie, W. P., Hummer, R. A., & Rogers, R. G. (2004). Nativity, duration of residence, and the health of Hispanic adults in the United States. *International Migration Review*, 38, 184–211.
- Cho, Y., & Hummer, R. A. (2001). Disability status differentials across fifteen Asian and Pacific Islander groups and the effect of nativity and duration of residence in the United States. *Biodemography and Social Biology*, 48, 171–195.

- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity, and violence against women of color. *Stanford Law Review*, 43, 1241–1300.
- Crimmins, E. M., Preston, S. H., & Cohen, B. (Eds.). (2010). *International differences in mortality at older ages: Dimensions and sources*. Washington, DC: National Academies Press.
- Cross-Call, J. (2020). *Medicaid expansion has helped narrow racial disparities in health coverage and access to care* (Report). Washington, DC: Center on Budget and Policy Priorities.
- David, R. J., & Collins, J. W., Jr. (1991). Bad outcomes in Black babies: Race or racism? *Ethnicity & Disease*, 1, 236–244.
- DeAngelis, R. T. (2020). Striving while Black: Race and the psychophysiology of goal pursuit. *Journal of Health and Social Behavior*, 61, 24–42.
- Dennis, A. C., Chung, E. O., Lodge, E. K., Martinez, R. A., & Wilbur, R. E. (2021). Looking back to leap forward: A framework for operationalizing the structural racism construct in minority health research. *Ethnicity & Disease*, 31(Suppl. 1), 301–310.
- Donnelly, R., Umberson, D., Hummer, R. A., & Garcia, M. A. (2020). Race, death of a child, and mortality risk among aging parents in the United States. *Social Science & Medicine*, 249, 112853. <https://doi.org/10.1016/j.socscimed.2020.112853>
- Du Bois, W. E. B. (2003). The health and physique of the Negro American. *American Journal of Public Health*, 93, 272–276. (Original work published 1906)
- Du Bois, W. E. B. (2007). *The Philadelphia Negro: A social study*. New York, NY: Oxford University Press. (Original work published 1899)
- Duster, T. (2001). Buried alive: The concept of race in science. *Chronicle of Higher Education*, 48(3), B11–B12.
- Elo, I. T., Turra, C. M., Kestenbaum, B., & Ferguson, R. (2004). Mortality among elderly Hispanics in the United States: Past evidence and new results. *Demography*, 41, 109–128.
- Ely, D. M., & Driscoll, A. K. (2020). *Infant mortality in the United States, 2018: Data from the period linked birth/infant death file* (National Vital Statistics Reports, Vol. 69 No. 7). Hyattsville, MD: National Center for Health Statistics.
- Engelman, M., & Ye, L. Z. (2019). The immigrant health differential in the context of racial and ethnic disparities: The case of diabetes. In R. Frank (Ed.), *Advances in medical sociology: Vol. 19. Immigration and health* (pp. 147–171). Bingley, UK: Emerald Publishing.
- Frank, R. (2007). What to make of it: The (re)emergence of a biological conceptualization of race in health disparities research. *Social Science & Medicine*, 64, 1977–1983.
- Franzini, L., Ribble, J. C., & Keddie, A. M. (2001). Understanding the Hispanic paradox. *Ethnicity & Disease*, 11, 496–518.
- Frisbie, W. P., Cho, Y., & Hummer, R. A. (2001). Immigration and the health of Asian and Pacific Islander Adults in the United States. *American Journal of Epidemiology*, 153, 372–380.
- Gates, H. L., Jr., Steele, C., Bobo, L. D., Dawson, M. C., Jaynes, G., Crooms-Robinson, L., & Darling-Hammond, L. (Eds.). (2012). *The Oxford handbook of African American citizenship, 1865–present*. New York, NY: Oxford University Press.
- Gee, G. C., & Ford, C. L. (2011). Structural racism and health inequities: Old issues, new directions. *Du Bois Review*, 8, 115–132.
- Gemmell, A., Catalano, R., Casey, J. A., Karasek, D., Alcalá, H. E., Elser, H., & Torres, J. M. (2019). Association of preterm births among U.S. Latina women with the 2016 presidential election. *JAMA Network Open*, 2, e197084. <https://doi.org/10.1001/jamanetworkopen.2019.7084>
- Geronimus, A. T. (1992). The weathering hypothesis and the health of African American women and infants: Evidence and speculation. *Ethnicity & Disease*, 2, 207–221.
- Geronimus, A. T. (2023). *Weathering: The extraordinary stress of ordinary life in an unjust society*. New York, NY: Little, Brown Spark.
- Geronimus, A. T., Hicken, M., Keene, D., & Bound, J. (2006). “Weathering” and age patterns of allostatic load scores among Blacks and Whites in the United States. *American Journal of Public Health*, 96, 826–833.
- Geruso, M. (2012). Black–White disparities in life expectancy: How much can the standard SES variables explain? *Demography*, 49, 553–574.
- Gutierrez, C., & Dollar, N. T. (2023). Birth and prenatal care outcomes of Latina mothers in the Trump era: Analysis by nativity and country/region of origin. *PloS One*, 18, e0281803. <https://doi.org/10.1371/journal.pone.0281803>

- Hahn, R. A., Truman, B. I., & Williams, D. R. (2018). Civil rights as determinants of public health and racial and ethnic health equity: Health care, education, employment, and housing in the United States. *SSM-Population Health*, 4, 17–24. <https://doi.org/10.1016/j.ssmph.2017.10.006>
- Hamilton, E. R., Cardoso, J. B., Hummer, R. A., & Padilla, Y. C. (2011). Assimilation and emerging health disparities among new generations of U.S. children. *Demographic Research*, 25, 783–818. <https://doi.org/10.4054/DemRes.2011.25.25>
- Hamilton, T. G. (2019). *Immigration and the remaking of Black America*. New York, NY: Russell Sage Foundation.
- Hamilton, T. G., & Hummer, R. A. (2011). Immigration and the health of U.S. Black adults: Does country of origin matter? *Social Science & Medicine*, 73, 1551–1560.
- Hannah-Jones, N., Roper, C., Silverman, I., & Silverstein, J. (Eds.). (2021). *The 1619 Project: A new origin story*. New York, NY: One World.
- Hardeman, R. R., & Karbeah, J. (2020). Examining racism in health services research: A disciplinary self-critique. *Health Services Research*, 55(S2), 777–780.
- Hardeman, R. R., Murphy, K. A., Karbeah, J., & Kozhimannil, K. B. (2018). Naming institutionalized racism in the public health literature: A systematic literature review. *Public Health Reports*, 133, 240–249.
- Harris, K. M. (2010). An integrative approach to health. *Demography*, 47, 1–22.
- Harris, K. M., Gordon-Larsen, P., Chantala, K., & Udry, J. R. (2006). Longitudinal trends in race/ethnic disparities in leading health indicators from adolescence to young adulthood. *Archives of Pediatric & Adolescent Medicine*, 160, 74–81.
- Harris, K. M., Halpern, C. T., Whitset, E. A., Hussey, J. M., Killelea-Jones, L. A., Tabor, J., & Dean, S. C. (2019). Cohort profile: The National Longitudinal Study of Adolescent to Adult Health (Add Health). *International Journal of Epidemiology*, 48, 1415–1415k. <https://doi.org/10.1093/ije/dyz115>
- Harris, K. M., & McDade, T. W. (2018). The biosocial approach to human development, behavior, and health across the life course. *Russell Sage Foundation Journal of the Social Sciences*, 4(4), 2–26.
- Hayward, M. D., Hummer, R. A., Chiu, C., González-González, C., & Wong, R. (2014). Does the Hispanic paradox in U.S. adult mortality extend to disability? *Population Research and Policy Review*, 33, 81–96.
- Heuveline, P. (2022). Global and national declines in life expectancy: An end-of-2021 assessment. *Population and Development Review*, 48, 31–50.
- Hicken, M. T., Lee, H., Ailshire, J., Burgard, S. A., & Williams, D. R. (2013). “Every shut eye, ain’t sleep”: The role of racism-related vigilance in racial/ethnic disparities in sleep difficulty. *Race and Social Problems*, 5, 100–112.
- Hicken, M. T., Lee, H., & Hing, A. K. (2018). The weight of racism: Vigilance and racial inequalities in weight-related measures. *Social Science & Medicine*, 199, 157–166.
- Horton, H. D. (1999). Critical demography: The paradigm of the future? *Sociological Forum*, 14, 363–367.
- Horton, H. D., & Sykes, L. L. (2001). Reconsidering wealth, status, and power: Critical demography and the measurement of racism. *Race and Society*, 4, 207–217.
- Hummer, R. A. (1996). Black–White differences in health and mortality: A review and conceptual model. *Sociological Quarterly*, 37, 105–125.
- Hummer, R. A., Biegler, M., DeTurk, P. B., Forbes, D., Frisbie, W. P., Hong, Y., & Pullum, S. G. (1999). Race/ethnicity, nativity, and infant mortality in the United States. *Social Forces*, 77, 1083–1117.
- Hummer, R. A., & Chinn, J. J. (2011). Race/ethnicity and U.S. adult mortality: Progress, prospects, and new analyses. *Du Bois Review: Social Science Research on Race*, 8, 5–24.
- Hummer, R. A., & Gutin, I. (2018). Racial/ethnic and nativity disparities in the health of older U.S. men and women. In M. D. Hayward & M. K. Majmundar (Eds.), *Future directions for the demography of aging: Proceedings of a workshop* (pp. 31–66). Washington, DC: National Academies Press.
- Hummer, R. A., & Hamilton, E. R. (2019). *Population health in America*. Oakland: University of California Press.
- Hummer, R. A., & Hayward, M. D. (2015). Hispanic older adult health & longevity in the United States: Current patterns & concerns for the future. *Dædalus*, 144(2), 20–29.
- Hummer, R. A., Powers, D. A., Pullum, S. G., Gossman, G. L., & Frisbie, W. P. (2007). Paradox found (again): Infant mortality among the Mexican-origin population in the United States. *Demography*, 44, 441–457.
- Hummer, R. A., Rogers, R. G., Amir, S. H., Forbes, D., & Frisbie, W. P. (2000). Adult mortality differentials among Hispanic subgroups and non-Hispanic Whites. *Social Science Quarterly*, 81, 459–476.

- Hummer, R. A., Rogers, R. G., Nam, C. B., & LeClere, F. B. (1999). Race/ethnicity, nativity, and U.S. adult mortality. *Social Science Quarterly*, 80, 136–153.
- Jackson, J. S., Brown, T. N., Williams, D. R., Torres, M., Sellers, S. L., & Brown, K. (1996). Racism and the physical and mental health status of African Americans: A thirteen-year national panel study. *Ethnicity & Disease*, 6, 132–147.
- Jackson, J. S., Hudson, D., Kershaw, K., Mezuk, B., Rafferty, J., & Tuttle, K. K. (2011). Discrimination, chronic stress, and mortality among Black Americans: A life course framework. In R. G. Rogers & E. M. Crimmins (Eds.), *International handbooks of population: Vol. 2. International handbook of adult mortality* (pp. 311–328). Dordrecht, the Netherlands: Springer Science+Business Media.
- Jasso, G., Massey, D. S., Rosenzweig, M. R., & Smith, J. P. (2004). Immigrant health: Selectivity and acculturation. In N. B. Anderson, R. A. Bulatao, & B. Cohen (Eds.), *Critical perspectives on racial and ethnic differences in health in late life* (pp. 227–266). Washington, DC: National Academies Press.
- Krieger, N. (2003). Does racism harm health? Did child abuse exist before 1962? On explicit questions, critical science, and current controversies: An ecosocial perspective. *American Journal of Public Health*, 93, 194–199.
- Krieger, N., Huynh, M., Li, W., Waterman, P. D., & Van Wye, G. (2017). Severe sociopolitical stressors and preterm births in New York City: 1 September 2015 to 31 August 2017. *Journal of Epidemiology and Community Health*, 72, 1147–1152.
- Krieger, N., Rowley, D. L., Herman, A. A., Avery, B., & Phillips M. T. (1993). Racism, sexism, and social class: Implications for studies of health, disease, and well-being. *American Journal of Preventive Medicine*, 9(Suppl. 6), 82–122.
- Lariscy, J. T., Hummer, R. A., & Hayward, M. D. (2015). Hispanic older adult mortality in the United States: New estimates and an assessment of factors shaping the Hispanic paradox. *Demography*, 52, 1–14.
- LaVeist, T. A. (1992). The political empowerment and health status of African Americans: Mapping a new territory. *American Journal of Sociology*, 97, 1080–1095.
- LaVeist, T. A. (1996). Why we should continue to study race . . . but do a better job: An essay on race, racism, and health. *Ethnicity & Disease*, 6, 21–29.
- MacDorman, M. F., Thoma, M., Declercq, E., & Howell, E. A. (2021). Racial and ethnic disparities in maternal mortality in the United States using enhanced vital records, 2016–2017. *American Journal of Public Health*, 111, 1673–1681.
- Markides, K. S., & Coreil, J. (1986). The health of Hispanics in the southwestern United States: An epidemiologic paradox. *Public Health Reports*, 101, 253–265.
- Markides, K. S., & Eschbach, K. (2005). Aging, migration, and mortality: Current state of research on the Hispanic paradox. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 60(Special issue 2), 68–75.
- Martinez, R. M., Andrabi, N., Goodwin, A. N., Wilbur, R. E., Smith, N. R., & Zivich, P. N. (2023). Conceptualization, operationalization, and utilization of race and ethnicity in major epidemiology journals, 1995–2018: A systematic review. *American Journal of Epidemiology*, 192, 483–496.
- Massey, D. S., & Denton, N. A. (1993). *American apartheid: Segregation and the making of the underclass*. Cambridge, MA: Harvard University Press.
- Masters, R. K., Hummer, R. A., Powers, D. A., Beck, A. N., Lin, S. F., & Finch, B. K. (2014). Long-term trends in adult mortality for U.S. Blacks and Whites: An examination of period- and cohort-based changes. *Demography*, 51, 2047–2073.
- Mehta, N. K., Elo, I. T., Engelman, M., Lauderdale, D. S., & Kestenbaum, B. M. (2016). Life expectancy among U.S.-born and foreign-born older adults in the United States: Estimates from linked Social Security and Medicare data. *Demography*, 53, 1109–1134.
- Monk, E. P., Jr. (2021). The unceasing significance of colorism: Skin tone stratification in the United States. *Dædalus*, 150(2), 76–90.
- Morning, A. (2009). Toward a sociology of racial conceptualization for the 21st century. *Social Forces*, 87, 1167–1192.
- Nam, C. B. (1979). The progress of demography as a scientific discipline. *Demography*, 16, 485–492.
- National Academies of Sciences, Engineering, and Medicine. (2022). *Structural racism and rigorous models of social inequity: Proceedings of a workshop*. Washington, DC: National Academies Press.
- National Human Genome Research Institute. (n.d.). *The Human Genome Project*. Retrieved from <https://www.genome.gov/human-genome-project>

- Nazroo, J. Y. (2003). The structuring of ethnic inequalities in health: Economic position, racial discrimination, and racism. *American Journal of Public Health*, 93, 277–284.
- Novak, N. L., Geronimus, A. T., & Martinez-Cardoso, A. M. (2017). Change in birth outcomes among infants born to Latina mothers after a major immigration raid. *International Journal of Epidemiology*, 46, 839–849.
- Omi, M., & Winant, H. (2015). *Racial formation in the United States* (3rd ed.). New York, NY: Routledge.
- Phelan, J. C., & Link, B. G. (2015). Is racism a fundamental cause of inequalities in health? *Annual Review of Sociology*, 41, 311–330.
- Poston, D. L., Jr. (Ed.). (2019). *Handbook of population* (2nd ed.). Cham, Switzerland: Springer Nature.
- Preston, S. H., & Haines, M. R. (1991). *Fatal years: Child mortality in late nineteenth century America*. Princeton, NJ: Princeton University Press.
- Preston, S. H., Heuveline, P., & Guillot, M. (2001). *Demography: Measuring and modeling population processes*. Oxford, UK: Blackwell Publishers.
- Richardson, L. J., Goodwin, A. N., & Hummer, R. A. (2021). Social status differences in allostatic load among young adults in the United States. *SSM– Population Health*, 15, 100771. <https://doi.org/10.1016/j.ssmph.2021.100771>
- Riosmena F., Kuhn, R., & Jochem, W. C. (2017). Explaining the immigrant health advantage: Self-selection and protection in health-related factors among five major national-origin immigrant groups in the United States. *Demography*, 54, 175–200.
- Riosmena F., Wong, R., & Palloni, A. (2013). Migration selection, protection, and acculturation in health: A binational perspective on older adults. *Demography*, 50, 1039–1064.
- Rogers, R. G., Hummer, R. A., Lawrence, E. M., Davidson, T., & Fishman, S. H. (2021). Dying young in the United States: What's driving high death rates among Americans under age 25 and what can be done? *Population Bulletin*, 75(2), 1–32.
- Rogers, R. G., Lawrence, E. M., Hummer, R. A., & Tilstra, A. M. (2017). Racial/ethnic differences in early-life mortality in the United States. *Biodemography and Social Biology*, 63, 189–205.
- Roth, W. D. (2016). The multiple dimensions of race. *Ethnic and Racial Studies*, 39, 1310–1338.
- Sáenz, R., & Garcia, M. A. (2021). The disproportionate impact of COVID-19 on older Latino mortality: The rapidly diminishing Latino paradox. *Journals of Gerontology, Series B: Psychological and Social Sciences*, 76, e81–e87. <https://doi.org/10.1093/geronb/gbaa158>
- Satcher, D., Fryer, G. E., McCann, J., Troutman, A., Woolf, S. H., & Rust, G. (2005). What if we were equal? A comparison of the Black–White mortality gap in 1960 and 2000. *Health Affairs*, 24, 459–464.
- Sheftel, M. G., & Heiland, F. W. (2018). Disability crossover: Is there a Hispanic immigrant health advantage that reverses from working to old age? *Demographic Research*, 39, 209–250. <https://doi.org/10.4054/DemRes.2018.39.7>
- Siegel, J. S., & Swanson, D. A. (Eds.). (2004). *The methods and materials of demography* (2nd ed.). San Diego, CA: Elsevier Academic Press.
- Singh, G. K., Rodriguez-Lainz, A., & Kogan, M. D. (2013). Immigrant health inequalities in the United States: Use of eight major national data systems. *Scientific World Journal*, 2013, 512313. <https://doi.org/10.1155/2013/512313>
- Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). Racial disparities in health: How much does stress really matter? *Du Bois Review*, 8, 95–113.
- Turra, C. M., & Elo, I. T. (2008). The impact of salmon bias on the Hispanic mortality advantage: New evidence from Social Security data. *Population Research and Policy Review*, 27, 515–530.
- Umberson, D., Olson, J. S., Crosnoe, R., Liu, H., Pudrovska, T., & Donnelly, R. (2017). Death of family members as an overlooked source of racial disadvantage in the United States. *Proceedings of the National Academy of Sciences*, 114, 915–920.
- United Health Foundation. (2020). *America's health rankings: 2020 annual report*. Retrieved from <https://www.americashealthrankings.org/learn/reports/2020-annual-report/international-comparison>
- U.S. Census Bureau. (2021). *Race and ethnicity in the United States: 2010 Census and 2020 Census* (Report). Retrieved from <https://www.census.gov/library/visualizations/interactive/race-and-ethnicity-in-the-united-state-2010-and-2020-census.html>
- Viruell-Fuentes, E. A., Miranda, P. Y., & Abdulrahim, S. (2012). More than culture: Structural racism, intersectionality theory, and immigrant health. *Social Science & Medicine*, 75, 2099–2106.

- Warren, J. R., Pfeffer, F. T., Helgertz, J., & Xu, D. (2020). *Linking 1940 U.S. Census data to the Panel Study of Income Dynamics: Technical documentation* (Technical Series Paper No. 20-02). Ann Arbor: Institute for Social Survey, Survey Research Center, University of Michigan.
- Wildeman, C., & Wang, E. A. (2017). Mass incarceration, public health, and widening inequality in the USA. *Lancet*, 389, 1464–1474.
- Williams, D. R. (1996). Racism and health: A research agenda. *Ethnicity & Disease*, 6, 1–6.
- Williams, D. R. (2012). Miles to go before we sleep: Racial inequities in health. *Journal of Health and Social Behavior*, 53, 279–295.
- Williams, D. R., & Collins, C. (1995). U.S. socioeconomic and racial differences in health: Patterns and explanations. *Annual Review of Sociology*, 21, 349–386.
- Williams, D. R., Lawrence, J. A., & Davis, B. A. (2019). Racism and health: Evidence and needed research. *Annual Review of Public Health*, 40, 105–125.
- Wolf, S. H., & Aron, L. (Eds.). (2013). *U.S. health in international perspective: Shorter lives, poorer health*. Washington, DC: National Academies Press.
- Wolf, S. H., Masters, R. K., & Aron, L. Y. (2021). Effect of the COVID-19 pandemic in 2020 on life expectancy across populations in the USA and other high-income countries: Simulations of provisional mortality data. *BMJ*, 373, n1343. <https://doi.org/10.1136/bmj.n1343>
- World Health Organization. (2006). *Constitution of the World Health Organization* (Basic Documents, 45th ed., Suppl.). Available from <https://www.who.int/about/governance/constitution>
- Wrigley-Field, E. (2020). U.S. racial inequality may be as deadly as COVID-19. *Proceedings of the National Academy of Sciences*, 117, 21854–21856.
- Zheng, H., & Yu, W. (2022). Diminished advantage or persistent protection? A new approach to assess immigrants' mortality advantage over time. *Demography*, 59, 1655–1681. <https://doi.org/10.1215/00703370-10175388>
- Zuberi, T., & Bonilla-Silva, E. (Eds.). (2008). *White logic, White methods: Racism and methodology*. Lanham, MD: Rowman & Littlefield Publishers.

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