



A Population-Based Study of 33 Causes of Death amongst America's Five Ethnic Populations 2015. In Pursuit of Social Justice

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Abstract:

Introduction- Health inequalities occur in every society, until a society understands the extent of social injustice drive for change is undermined. Hence this examination of mortality of America's Ethnic groups.

Method: This study's novel approach analyses differences of 33 mortalities of Asian, Black, Hispanic, Indian/Alaskan and White American people's Age-Standardised-Death-Rates per million (pm). Based upon National Vital Statistics and comparative ratios are calculated for each ethnicity.

Results – Black American had highest death rate 8761pm, Asian Americans lowest 3962pm. Black and Indian/Alaskan Americans had highest rates for most categories, White Americans were highest for nine. Asian and Hispanic Americans substantially lower than other groups.

Black Americans had 11 higher and 10 substantially lower than White American deaths. Indian/Alaskan Americans had 10 higher and 7 substantially lower than White Americans.

If Black Americans had matched the average mortality of the other groups there would have been 94,422 fewer deaths. Unexpected findings included Black Americans having lower mortalities in specific categories such as neurological disease and some cancer sites.

Conclusions: Patterns of mortality strongly suggest links to relative poverty, which are barriers to social justice. While such disparities between the ethnicities remain, they are significant barriers to the pursuit of social justice.

Keywords: America, ethnicity, mortality, social justice.

Introduction: [Text 2488]

This study examines a sensitive area that requires balance and objectivity. We are at one with the American researcher who said 'It is recognised that research touching upon possible differences between what are termed 'races' is both sensitive and frequently perceived as contentious (Rutherford, 2020).

This study uses the less essentialising term 'ethnicity' in recognising that race and ethnicity are not precise categories, but ethnicity is reflective of

broad origins and cultural heritage of the person. To this end this study examines current major selected mortality categories from the USA National Vital Statistics report (CDC, 2020) amongst the five official American ethnic groups to identify any significant anomalies. We were influenced by the concept enshrined in a UNICEF (2001) statement that said "*In the last analysis child mortality rates are an indication of how well a nation meets the needs of its children*" pp2 (our emphasis). We transpose this concept to argue "that in the last analysis mortality rates are an

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indication of how well a nation meets the needs of all its citizens.”

It is argued that until a society truly grasps the barriers to social justice that still result in a range of disadvantages, education, employment and especially health efforts to tackle the underlying structural problems are undermined (Wilkinson and Pickett, 2009; Malqvist, 2015; Pritchard et al 2020).

While there is considerable evidence from many studies that African-Americans have a poorer health outcomes than White Americans (Sidebotham, et al 2014; Rogers et al, 2017; Gropper et al, 2019; Lipfert and Wyzga, 2019; Stone, 2020; Troeschel, et al, 2020; Hazekamp, et al, 2020; Williams and Shenassa, 2020), this study takes a novel approach by specifically interrogating the twenty-four selected mortality categories outlined in the National Vital Statistics report (CDC, 2020), which unlike the WHO (2020), reports upon the mortality outcomes of different ethnic groups.

The ethnic groups are officially defined as Non-Hispanic Asian or Pacific Islanders (Asian), Non-Hispanic Black (Black), Non-Hispanic American Indian /Alaskan Native (Alaskan/Indian), Hispanics (Hispanics) and Non-Hispanic White (White) people. It is hoped that our shortening of the nominated ethnic population title is not seen as in anyway disrespectful.

We directly compare between the ethnic group's current total Age-Standardised-Death-Rates (ASDR) based upon the latest national mortality statistics for 2015 (CDC,2020).

Any notable differences in patterns of mortality are likely to be due to an interactive mixture of reasons, such as locale i.e. the state in which the person lived, life-styles, occupation, socio-economic, culture, epigenetic factors and health service configurations etc (Wilkinson and Pickett, 2009; Howard et al, 2014; Pritchard et al, 2019; Fabisiak et al, 2020; Handley et al, 2020; Pritchard et al, 2020).

However, this study is essentially a hypothesis stimulating study to provide a comparison of the latest pattern of mortalities between the ethnic groups. It is beyond the remit of this study to explain the

comparative differences in findings. Instead, it highlights the current situation to provide a baseline for further research to address any inherent social structural problems that are barriers to the continued pursuit of social justice.

There will be one working hypothesis: - that there will be no substantial (+/- 20%) differences between the five ethnic groups for the major mortality categories as outlined in the National Vital Statistics report.

Methodology

Total mortality data for the five major USA Ethnic minorities, Asian, Black, Indian, Hispanics and White people are taken from the USA National Vital Statistics for Age-Standardised-Death-Rates (ASDR) for All-Causes of death. which controls for age, gender and population. There are twenty-four CDC Selected Causes of major mortality, that contain eight sub-categories to be reported upon, for example within the global category of 'neoplasms', the larger separate major cancer sites are reported upon.

Total death rates for both sexes are based on ASDR per million (pm) enabling a comparison across the five ethnic groups for the latest year available, 2015 (CDC. 2020).

The US populations consists of 62.3% White, 17.8% Hispanic, 13.1%, Black, 6.0% Asian and less than 1% Alaskan /Indian American people (CDC, 2020). Each ethnic group's ASDR is contrasted against each of the other ethnic groups, from which odds ratios (O.R) are calculated. Differential death rates are considered 'substantial' if any produce an odds ratio of either plus or minus 20% i.e. >1:1.20 or <1:0.80 ratios and thereby identified as a poorer or better outcome than the other group.

It is acknowledged that this makes ratios based upon the two smaller ethnic groups a little unstable, as big changes can emerge when based upon relatively small numbers.

We will not comment on each mortality category but rather highlight the major themes that may emerge.

Results

The highest All Causes of death were for Black people at 8761pm, followed by

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Indian 8057pm, White 7532pmn, Hispanic 5253pm and Asian people at 3962pm.

Black Americans had the highest rates in fifteen categories and were second highest in seven and were lowest in three, namely Parkinson's Disease 39pm, accidental falls 42pm and suicide 58pm.

Indian/ Alaskan people were highest in ten categories and were second in four. They were lowest or joint lowest in three categories medical/surgical complication 0pm, brain neoplasms 26pm and leukaemia 43pm

White Americans had the highest rates in nine mortality categories which were major cardiovascular 2230pm, lung 438pm, leukaemia 66pm and brain cancers

51pm, chronic lower respiratory 469pm, Alzheimer's 308pm, Parkinson's Disease 84pm and accidental falls 99pm. They were also second highest in seven but there were no categories in which they had the lowest rate.

Hispanic Americans had no highest rate but were lowest and joint lowest for all neoplasms 1103pm, including lung 178pm, colon 109pm, pancreas 84pm, leukaemia 43pm. In addition, they were lowest for cerebrovascular strokes 300pm and motor accidents 102pm.

Asian Americans were neither first or second highest for any of the mortality categories and were lowest for 25 mortality categories, which will be highlighted below.

Table1: Total Age-Standardised-Deaths-Rates (ASDR) per million Ethnic Population's Causes of Death of both Sexes. Highest Ethnic Mortality Category in BOLD.

Categories	NH Black	Indian / Alaskan	NH White	Hispanic	NH Asian
1.Total All Causes	8761	8057	7532	5253	3962
2.All Major Cardiovascular	1872	2029	2230	1609	1274
[Hypotension]	[167]	[94]	[76]	[79]	[73]
[Cerebrovascular/Stroke]	[522]	[320]	[364]	[300]	[300]
3.All Malignant Neoplasm	1851	1409	1637	1103	1177
[Lung]	[431]	[348]	[438]	[178]	[298]
[Colon]	[193]	[148]	[141]	[109]	114
[Pancreas]	[137]	[89]	[111]	[84]	84
[Leukaemia]	[52]	[43]	[66]	[43]	47
[Brain]	[27]	[26]	[51]	[30]	27
4.All Accidents	382	771	490	286	160
[Motor Accidents]	[127]	[267]	[118]	[102]	[49]
5.Chronic Lower Respiratory	297	404	469	177	121
6.Alzheimer's	273	189	308	242	147
7.Diabetes	380	450	189	252	185
8 Drug Induced Deaths	132	228	221	82	28
9.Flue & Pneumonia	163	162	154	114	141
10.Accidental Poisoning	115	251	188	77	23
11.Nephritis	262	160	122	114	83
12.Suicide	58	200	170	62	65
13.Injury by Firearms	207	133	106	58	25
14. Septicaemia	186	130	106	81	49
15.Chronic Liver	76	392	111	149	32
16.Alcohol Induced Deaths	67	456	96	99	19
17.Falls	42	89	99	58	52
18.S&S Abnormal	113	104	93	52	32
19. Parkinson's Disease	39	53	84	57	50
20.Assault	209	98	26	49	15
21.Pneumonitis (Solids/Fluids)	51	48	56	34	33
22.Peri-Natal	86	35	31	33	30
23.Congenital Malformations	37	38	32	27	21
24.HIV	82	20	9	18	7
25.Medic/Surgical Complication	11	0	7	5	4
Substantial Highest	15	9	9	0	0
Substantial 2nd Highest	6	16	7	4	0
Lowest [= equal lowest rate]	2	3 [1=]	0	5 [2=]	25 [2=]

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Inter-Ethnic Comparisons

Tables 2a and 2b compares ASDR for each category of one ethnic group with another. As it would be expected that Black and Indian people's results would be less

positive than the other ethnic groups, only the 'unexpected' or better outcomes of Black and Indian people will be commented upon.

Table[2a]. Age-Adjusted-Standardised-Deaths-Rates Causes of Death by Ethnic to Ethnic Comparative Ratios. Substantial (+/- 20%) ratios in BOLD.

Mortality Categories	Asian: Black	Asian: Hispanic	Asian: Indian	Asian: White	Black: Indian	Black: Hispanic
1.All Causes	1:2.21	1:1.33	1:2.03	1:1.90	1:0.92	1:0.60
2.Major Cardiovascular [Hypotension]	1:1.47	1:1.26	1:1.59	1:1.75	1:1.08	<i>1:0.86</i>
[Cerebrovascular/Stroke]	1:2.29	1:1.08	1:1.29	1:1.04	1:0.56	1:0.47
3.Malignant Neoplasm [Lung]	1:1.74	1:1.00	1:1.07	1:1.21	1:0.61	1:0.57
[Colon]	1:1.57	1:0.94	1:1.20	1:1.39	1:0.76	1:0.60
[Pancreas]	1:1.45	1:0.60	1:1.17	1:1.47	1:0.81	1:0.41
[Leukaemia]	1:1.69	1:0.97	1:1.30	1:1.24	1:0.77	1:0.56
[Brain]	1:1.63	1:1.00	1:1.06	1:1.32	1:0.65	1:0.61
4.Accidents [Motor Accidents]	1:1.11	1:0.91	1:0.91	1:1.40	1:0.83	1:0.83
5.Chronic Lower Respiratory	1:1.00	1:1.11	1:0.96	1:1.89	1:0.96	1:1.11
6.Alzheimer's	1:2.39	1:1.79	1:4.82	1:3.06	1:2.09	1:0.75
7.Diabetes	1:2.29	1:2.08	1:5.45	1:2.41	1:2.10	1:0.80
8.Alzheimer's	1:2.45	1:1.46	1:3.34	1:3.88	1:1.36	1:1.58
9.Diabetes	1:1.86	1:1.65	1:1.29	1:2.10	1:0.69	1:1.13
10.Chronic Lower Respiratory	1:2.05	1:1.36	1:2.43	1:1.02	1:1.18	1:0.66
11.Alzheimer's	1:4.71	1:2.93	1:8.41	1:7.89	1:1.73	1:0.62
12.Drug Induced Accidents	1:1.16	1:0.81	1:1.78	1:1.09	1:0.99	1:0.70
13.Flue & Pneumonia	1:5.00	1:3.35	1:10.9	1:8.17	1:2.18	1:0.67
14.Accidental Poisoning	1:3.16	1:1.37	1:1.93	1:1.47	1:0.61	1:0.44
15.Nephritis	1:0.89	1:0.95	1:3.08	1:2.62	1:3.45	1:1.07
16.Suicide	1: 8.29	1:2.32	1:5.32	1:4.24	1:0.64	1:0.28
17.Injury by Firearms	1:3.80	1:1.65	1:2.65	1:2.16	1:0.70	1:0.44
18.Septicaemia	1:2.28	1:4.66	1:12.3	1:3.47	1:5.16	1:1.96
19.Chronic Liver	1:3.53	1:5.21	1:24.0	1:5.05	1:6.81	1:1.48
20.Alcohol Induced Deaths	1:0.81!	1:1.12	1:1.71	1:1.90	1:2.12	1:1.38
21.Falls- Accidental	1:3.53	1:1.63	1:3.25	1:2.91	1:0.92	1:0.46
22.S&S Abnormal	1:0.78	1:1.14	1:1.06	1:1.68	1:1.36	1:1.46
23.Parkinson's Disease	1:13.9	1:3.27	1:6.53	1:1.73	1:0.47	1:0.23
24.Assault	1:1.55	1:1.00	1:1.45	1:1.70	1:0.94	1:0.67
25.Pneumonitis (Solids/Fluids)	1:2.87	1:1.10	1:1.17	1:1.03	1:0.47	1:0.38
26.Peri-Natal	1:1.76	1:1.29	1:1.00	1:1.53	1:1.03	1:0.73
27.Congenital Malformations	1:11.7	1:2.57	1:2.86	1:1.29	1:0.24	1:0.22
28.HIV	1:2.75	1:1.25	1:0.01	1:1.75	1:0.01	1:0.45
29.Medic/Surgical Complication	27	19	23	29	10	5
Substantial Higher Deaths	2	1	1	0	12	23
Substantial Lower Deaths						

In relation to Asian results with the other groups, Black Americans had 27 substantially higher ratios than Asian and just one lower, which was suicide 58pm.

Asian people had 19 substantially lower than Hispanic Americans, the one exception being lung cancer.

Indian/Alaskan to Asian ratios were 23 higher and just one lower, medical surgical complication but were lower, but not substantially for pancreas and leukaemia deaths.

Asian compared to White people's results was they had 29 substantially lower ratios and none higher. Notable wide Asian: White ratios were accidents 1:3.06, chronic lower respiratory 1:3.9, Alzheimer's 1:2.1, drug induced accidents 1:7.8, accidental poisoning, 1:8.2, alcohol induced deaths 1:5.1, injury by firearms 1:4.2, and chronic liver disease 1:3.5.

Black to Indian people had 12 higher mortality rates but 10 were lower. Notable lower Black to Indian ratios were

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accidents 1:2.09, accidental poisoning 1:2.18, suicide 1:3.45, motor accidents 1:2.10, chronic liver 1:5.16, alcohol induced deaths 1: 6.8 and accidental falls 1:2.12.

Black to Hispanic people had 23 lower ratios but four higher. These were chronic liver 1:1.96, alcohol induced deaths 1:1.48, accidental falls 1:1.38, and Parkinson's Disease 1:1.46.

Black to White people had 11 higher but 10 substantially lower ratios, these being leukaemia 1:1.27, brain neoplasms 1:1.89, Parkinson's Disease 1:2.15, chronic respiratory disease 1:1.58, chronic liver disease 1:1.46, alcohol induced deaths 1:1.43, drug induced accidents 1:1.67, accidental poisoning 1:1.63, accidental falls 1:2.26 and suicides 1:4.49.

Table[2b]. All Age-Adjusted-Standardised-Deaths-Rates Causes of Death by Ethnic to Ethnic Comparative Ratios. Substantial (+/-20%) ratios in BOLD

Categories	Black: White	Indian: Hispanic	Indian: White	Hispanic: White
1.All Causes	1:0.86	1:0.65	1:0.93	1:1.43
2.Major Cardiovascular [Hypotension]	1:1.19	1:0.79	1:1.10	1:1.39
[Cerebrovascular/Stroke]	1:1.02	1:0.84	1:0.81	1:0.96
	1:0.70	1:0.94	1:1.14	1:1.21
3.Malignant Neoplasm [Lung]	1:0.88	1:0.78	1:1.16	1:1.48
[Colon]	1:1.02	1:0.51	1:1.26	1:2.46
[Pancreas]	1:0.74	1:0.74	1:0.95	1:1.29
[Leukaemia]	1:0.82	1:0.94	1:1.25	1:1.32
[Brain]	1:1.28	1:1.00	1:1.53	1:1.53
	1:1.94	1:1.15	1:2.01	1:1.70
4. All Accidents [Motor Accidents]	1:1.29	1:0.37	1:0.64	1:1.71
	1:0.93	1:0.38	1:0.44	1:1.16
5.Chronic Lower Respiratory	1:1.58	1:0.44	1:1.16	1:2.64
6.Alzheimer's	1:1.13	1:1.28	1:1.63	1:1.27
7.Diabetes	1:0.50	1:0.56	1:0.42	1:0.75
8.Drug Induced Accidents	1:1.68	1:0.36	1:0.97	1:2.69
9.Flue & Pneumonia	1:0.96	1:0.70	1:0.95	1:1.35
10.Accidental Poisoning	1:1.64	1:0.31	1:0.75	1:2.44
11.Nephritis	1:0.47	1:0.71	1:0.76	1:1.07
12.Suicide	1:4.49	1:0.31	1:0.61	1:2.74
13.Motor Accidents	1:0.93	1:0.38	1:0.44	1:1.16
14.Injury by Firearms	1:0.52	1:0.25	1:0.80	1:1.83
15. Septicaemia	1:0.57	1:0.62	1:0.82	1:1.31
16.Chronic Liver	1:1.47	1:0.38	1:0.28	1:0.74
17.Alcohol Induced Deaths	1:1.59	1:0.22	1:0.21	1:0.97
18.Falls- Accidental	1:2.40	1:0.65	1:1.11	1:1.71
19.S&S Abnormal	1:0.84	1:1.09	1:0.89	1:1.79
20. Parkinson's Disease	1:2.18	1:1.08	1:1.58	1:1.47
21.Assault	1:0.13	1:0.50	1:0.27	1:0.53
22.Pneumonitis Solids/Fluids)	1:1.10	1:1.06	1:1.17	1:1.65
23.Peri-Natal	1:0.37	1:0.94	1:0.91	1:0.94
24.Congenital Malformations	1:0.87	1:0.71	1:0.82	1:1.19
25.HIV	1:0.12	1:0.90	1:0.45	1:0.50
25.Medic/Surgical Complication	1:0.65	1:5.00x	1:7.00 x	1:1.40
Substantial Higher Deaths	11	2	7	4
Substantial Lower Deaths	10	21	10	23

One other finding of note that highlights Black American mortality rates being generally worse than the other ethnic groups is returning to differences in the All-Cause death rates for 2015. Indian/Alaskan rates were 8% lower, Whites 14%, Hispanic

41% and Asian deaths being 55% lower than Black Americans.

Transposing the rates into the numbers of deaths would mean that of the 360,072 Black American deaths reported in 2015, if they had matched Indian/Alaskan

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rates there would have been 25,606 fewer, if matching White mortality 44,810 fewer. Had they been comparable to Hispanic rates then it would be 131,230 less deaths and if matching Asian rates there would have been 176,040 fewer Black American deaths. Overall, if Black American deaths rates had matched the average of the other ethnic groups, there would have been 94,422 fewer Black-American deaths.

Discussion

The null hypothesis that there would be no substantive (+/ - 20%) differences in mortality outcomes can be rejected. Asian American mortality rates and Hispanic American rates were, with a very few exceptions, significantly lower than the other three groups, with Black Americans closely followed by Indian/Alaskan Americans having comparatively far higher mortality rates for most conditions.

Limitations

The limitations of the study are that we cannot determine causal factors to the specific mortalities. Any detailed explanation would require further research to examine possible differences between and within the individual States. Also, whilst ASDR data is controlled for population size, age and gender, the Indian/Alaskan group as a proportion of the USA general population is very low, less than 1%, which makes their comparative rates and ratios somewhat unstable.

A major limitation is that these ethnic categories are themselves very broad paradigms and when basing comparisons on people's ethnicity it is recognised the likely multi-heritage of many Americans, making ethnic categorisation somewhat artificial (CDC,2020). Whilst it is recognised that some mortalities are also bound-up with life styles such as chronic respiratory disease, chronic liver disease, as well as a range of other inter-related factors such as, occupation, socio-economic, culture and health service configurations etc, will have contributed to specific category mortalities (Wilkinson and Pickett, 2009; Howard et al, 2014; Pritchard et al, 2019; Fabisiak et al, 2020; Handley et al, 2020; Pritchard et al, 2020a).

Nonetheless, the study provides an up-to-date baseline for future research that provides important measures on the inequalities in health outcomes across the American ethnic groups. With the self-evident need of socio-economic structural change needed for improvement to level-up disparities.

In examining current patterns of mortality we can make broad assumptions when we compare White American rates with the others, but especially Black and Indian/Alaskan Americans, who have long been known to have less favourable socio-economic circumstances and poorer health outcomes (Wilkinson & Pickett, 2009; Sidebotham, et al 2014; Roger et al, 2017; Gropper et al, 2019; Lipfert and Wyzga, 2019; Stone, 2020; Troeschel et al, 2020; Hazekamp et al, 2020; Williams and Shenassa, 2020). Taking all the thirty-three categories into consideration, Black and Indian/Alaskan Americans, had the highest mortality rates in twenty-four of the thirty-three categories and second highest in twenty-one mortalities. With the socio-economic history of the USA these findings for Black and Indian/Alaskan Americans may not be unexpected, though the position of White Americans compared to Asian and Hispanic citizens might raise comment.

Some Unexpected Results

Hispanic American total mortality rates are more than 30% lower than for White Americans and more than 40% lower than Black and Indian Americans, yet thirty or more years ago Hispanic children's mortality rates were close to African-American rates and considerably lower than White American children's mortality (Pritchard and Sharples, 2008; CDC, 2020).

Whilst Asian / Pacific Islander American total mortality rates were much lower than all the other groups, indeed based on the latest figures they and Hispanic Americans, were considerably lower than the other ethnic populations. Perhaps somewhat unexpectedly White Americans had the highest death rates in nine categories. These mortality categories were major cardiovascular, lung cancer, leukaemia, brain tumours, chronic lower respiratory disease, pneumonitis,

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Alzheimer's and Parkinson's disease and accidental falls leading to death. White suicide rates were more than double those for Black Americans, though slightly lower than Indian/Alaskan Americans. White Americans were also second highest in seven mortalities, notably suicide, all accidents, accidental poisonings and drug induced deaths. It is tempting to speculate on these possibly counter-intuitive findings however they are beyond the competence of this study but merit further research, possibly between and within States.

The most salient finding that requires an explanation from both Federal and State health and social care systems is that if Black-American mortality rates had matched the average of the other ethnic groups, out of the 360,082 deaths in 2015 there would have been 94,422 fewer grieving Black-American families i.e. 26% less. Surely, such disparity of morbidity and mortality in a democratic society needs to be questioned and solutions sought to level-up the life-expectancy of citizens. Referring again to the UNICEF (2001) concept that mortality rates indicate the nation's ability to care for its people, these results show that to some degree the USA fails 'to meet the needs of some its minority ethnic citizens'.

If we look outside the borders of the USA and compare American child and adult mortality rates with the other twenty Western countries, we find an apparent paradox. In the richest country in the world, based upon World Bank 'Income Inequality' rates, the USA has the widest gap of all twenty-one Western countries. This is statistically linked to the US having the highest child (0-4) and adult mortality rates in the West, despite spending proportionately more of its GDP on health (Pritchard et al, 2019; 2020a). This indicates that America is the least equal society in the West, which is linked to a range of health and social disadvantages of ethnic minorities and though these findings of ethnic minorities occurs throughout the West, including countries such as France, Sweden and the UK etc (Wilkinson & Pickett, 2009; Sidebotham et al, 2014; Watkins et al, 2016; Thomsen et al, 2017; Brydsten et al, 2018; Lia et al, 2019; UN 2019). Yet it is

most prevalent in the USA. One other area in which the USA leads the rest of the Western world is the level of internal violent deaths in America, which far outweigh any other developed nation, due to US lives lost to firearms (Pritchard et al, 2020b).

To neutral outsiders, these international comparative results point to the urgent need for reform and the Affordable Care Act looked to be one way forward (Bradley et al, 2013; Himmelstien et al 2014; Kirzinger et al, 2017) Yet it alone is not likely to be able to over-come the socio-economic structural factors that produced the disparaging differential mortality rates of America's Ethnic groups (Himmelstein & Woodhandler, 2017).

It is appreciated that these results are likely to be unwelcome, but we have a moral duty no matter how uncomfortable to "dare to speak truth to power" (Rustin, 1955). Such mortality discrepancies in the richest country in the world cannot go unnoticed. This is the rationale for free academic University inquiry that is not only concerned with developing advanced technology. Rather it also needs to focus on socio-economic evidenced-based research that contributes to the continued pursuit of social justice, by highlighting those serious anomalies that need to be addressed, which defines a free society.

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