To-Do For Thesis:

1. Make sure that entire paper is in APA format (cover sheet, abstract, spacing, margins, references, etc.)
   1. Also, could follow graduate school formatting while writing it?
2. Create a ‘Problem Statement’ : One paragraph that describes the issues with access to healthcare, leading to universal healthcare as a potential solution to this problem.
   1. “US Healthcare is broken – Costly, Bad Outcomes, Lack of Coverage”
      1. One paragraph to introduce all these concepts
      2. UHC solves… maybe two of these outcomes?
         1. UHC clearly also solves inequality in communities b/c it gets rid of opportunities for arbitrary and unfair resource distribution.
      3. V.A. Shaffer Missouri Law Review – Article on Nudges; use for refs?
      4. Countries w/ better coverage get better health outcomes
         1. So if we inc our coverage… we’ll likely have better health outcomes?
         2. UHC is the solution BUT it is disliked – THAT is why our study is good BECAUSE we can try to solve this problem w/ our solution.
3. Write in ‘manuscript style’?
4. Prepare each point with… two citations minimum?
   1. Lets create a list of points and count through to check # of citations
   2. 23 ish citations is TOO THIN, bulk up and be more thorough regarding literature.
      1. The purpose is to demonstrate the expertise.
5. Reduce the # of direct quotes
6. Overly reliant on Galvani et al 2017? In the introduction?
7. Dive into how UHC is a political landmine
   1. People dislike it beyond it’s technical and practical concerns
   2. The intervention is good b/c it pushes beyond the politics and directly addresses the concerns that individuals have regarding UHC (from the politics?)
8. Clearly/Cleanly create a transition (showing our logic and reasoning) between studies 1 and 2.
9. Don’t use the headings we have, use APA format headings
   1. Occasionally put in sub-headings that are SUBSTANTIVE (e.g. access to healthcare, other topical subtexts)

Notes on Method and Results Section

* Get outside readers to give feedback, to see if we have all the necessary details
* This feels like it’s missing!
  + There are things that we have in our head, but that aren’t clearly integrated, or fully described
* The results section does not look correct
  + Need to make sure each figure is capped and ref’d with that cap.
  + Look at examples from other writings, for how the results is written.
  + It should be data driven – Why is it apparent, what is significant, what are the #’s?

We need to change the “Feel” of our paragraphs

* We should have it point by point, then use individual papers to provide evidence for those points.
  + Currently, we are looking at a paper, and unfolding it into a paragraph?

Expand this into a paragraph?

Students struggle to answer questions regarding UHC due to divergent beliefs as to exactly what ‘universal coverage’ means (Huebner et al. 2006).

Secondly, without a framework for what care is to be distributed through UHC, rationing of limited health resources is haphazard and arbitrary. Indeed, the main mechanism through which racial prejudice predicts decreased support for UHC in the U.S. is ‘unfair’ disbursement of resources to undeserving minorities (Shen and Labouff 2016).

Simply put, medical care is unaffordable in the United States for many individuals.

Theory and Citations

* Comprehensibility
  + Huebner et al. 2006 – Med students are unable to define UHC
* Equality
  + Shen & Labouff 2016 – Racial Prejudice predicts decreased supp through perception of ‘unfair’ disbursement

Introduction – Make a point, back it up w/ literature

Results – Make a point, back it up w/ #’s and a good depth of evidence

* + - 1. What is our research question
      2. What did we do to address this question
      3. What are the QUANTITATIVE results of what we did to address this question.

Methods – Not just what we did but why.

New notes – Adapting from Jinwen example, compared to my own work!

Introduction – What do we want to add, that matters? Our goal is a logical flow of ideas that leads up to my hypothesis.

1. PROBLEM STATEMENT – What is wrong with access to healthcare in the USA, and WHY is UHC a good solution to the problem?
   1. Healthcare is leading to extreme financial strain
      1. Medical-related reasons (expenses, debt, work loss due to illness, etc) major contributor to 71.5% of bankruptcies, even after passage of ACA (Himmlestein 2019)
      2. Crippling medical debt is an albatross around the neck of the average American, 61% of debtors report medical debt, avg med debt is $9,374 (Austin 2014).
      3. Even for those who are not becoming bankrupt, when out of pocket expenses eat up large proportions of household income, underinsurance can occur (10% of household income), in as high as 21.3% of US adults (Collins 2020)
   2. Uninsured/underinsured people have more mortality
      1. Hazard ratio of 1.4 (40% more likely to die), 44,000 dies per year, more than kidney disease (42,000) (Wilper 2009)
         1. Hazard ratio of 1.25, 25% more likely to die (Franks 1993)
      2. Insurance assoc. with .2 std deviation improvement in self-reported health, 8% less depression, 25% increase in perception of good or better health (Finklestein 2012 – Oregon Medicaid lottery study)
      3. Uninsured neonates have significant greater mortality, 5.4% uninsured discharges, but 9.5% uninsured deaths, adjusted odds ratio of death of 2.6 (2.6 times more likely to die than insured), greater than many clinical conditions similar to congenial malformation (for example) (Morriss 2013)
      4. Underinsured more likely to (more than half went without necessary medical services 54%, and uninsured are only a little higher, 59%!) forgo necessary medical care, and rates of financial stress were like those completely uninsured. Nearly 60% of underinsured have had to deal with collection agencies (Schoen 2005)
   3. Healthcare outcomes in the USA are not good compared to other countries (even considering how high our costs are!)
      1. In 2016, US spent 17.8% of GDP on healthcare, with ranges for other high-income countries ranging from 9.6% to 12.4%, and 90% coverage (other countries ranged from 99%-100%). US had lowest life expectancy (78.8) vs a mean of 81.7 of all 11 countries. Administrative costs is 8%, in other countries it's 1-3%, pharma costs 1443$ per capita vs 466 to 936%. (triple to 50% greater). Overall spending is approx. double with not greater utilization rates, thus cost difference is due to prices of labor and goods in US system (Papanicolas 2018).
      2. Total annual cost of waste in the US system ranges from $760 billion to almost 1 trillion, approximately 25% of total health care spending. The two main categories representing over 40% of total wasted spending are administrative complexity, and pricing failure primarily represented by pharmaceuticals (shrank 2019).
2. Opposition to UHC
   1. Lack of understanding what it consists of.
      1. Huebner et al. 2006 (students can’t define UHC)
      2. Approximately half of Americans are confused about what the law consists of (Kaiser Family Foundation Health Tracking Poll 2011)
      3. The majority of Americans (over 60%) stated that most of what they know about the ACA came from watching TV (demonstrating a lack of deeper understanding of the material) (Dalen 2015).
      4. 89.4% of those supporting UHC coverage do so because health care system would be simpler/easier to understand, whereas only 56.2 of those who oppose feel that UHC would make the health care system simpler (Holahan 2019).
      5. Americans already struggle to understand more universal health systems. In the overall population, a full half were unable to understand the structure of the ACA or it’s component pieces (Barcellos 2013).
      6. Additionally, lacking a shared etymology regarding UHC hampers understanding and analysis for academic purposes as well (Hsaio 2016).
   2. It seems unfair?
      1. Originally believed opposition to UHC hinged on racial bias, but after controlling for race, biggest issue of opposition was as a response to the ‘free rider’ effect, that providing universal coverage was definitionally unfair and inequitable (Shen & Labouff 2016)
      2. Statistically significant differences between support and opposition regarding equitable coverage – Supporters are 91% likely to support because covering everyone is important, opposition felt that at 45% instead (Holahan 2019)
   3. Opposition exists, even though they approve most of the features??? (is this worth keeping?)
      1. Like ACA or UHC seen as bad, but Medicare is overwhelmingly approved of.
3. Literature review
   1. Inadequacies w/in current system
      1. Healthcare is too expensive in the US.
         1. US Healthcare spending is just generally very expensive, for medical procedures and pharmaceuticals, we generally pay over twice as much as the OECD median cost (Anderson 2003).
         2. Unwillingness to ration care, and administrative complexity, continue to push cost higher with low value outcomes (Reinhardt 2004).
         3. Assorted structural problems w/ distribution and incentives.
      2. UHC is cheaper!
         1. 30-year examination of OECD countries that implemented single payer (vs anything else),controlling for health status, demographics, level of preventative medicine, and political factors. Showed a difference in cost of .75% of GDP, estimated at 150$ billion per year in the USA . Half of the saved cost is medical goods and administrative spending (.37% gdp) and most of the rest is curative and rehabilitation (.2% gdp)(Bichay 2020).
         2. Functionally, creating a monopsony for purchase of healthcare goods and technologies (pharmaceuticals etc.) allows for limiting of aggregate pharmaceutical and medical technology costs (Hussey 2003)
         3. Average costs for pharmaceuticals in 10 OECD countries, controlling for volume used, is lower in single-payer systems. This is due to lower prices for pharmaceuticals, and selection of generic alternative to expensive brand-name drugs (Morgan 2017).
         4. While implementing UHC can briefly cause the rate of health expenditure to increase (14% in the year Taiwan implemented UHC), the annual increases afterwards were more than half the size, 4.1%, than they were before implementation of UHC, 8.3%. Ultimately, this indicates the ability for UHC to reduce top-line spending and function efficiently (Hsiao 2016).
         5. Another advantage to a centralized system is the ability to aggregate and analyze information across the breadth of the healthcare system more easily. This can result in significant savings, as the Taiwanese National Healthcare Insurance Administration was able to use statistical modelling to identify health providers who are outliers, leading to an 8% reduction in expenditures within their first two years of operation, by controlling fraud and abuse (Hsiao 2016).
         6. On a related note, that is partly why spending is so high in the US, significant underspending and underinvesting in health information technology infrastructure. An aggregated Electronic Health Record (EHR) would reduce costs and mistakes, improving quality. The authors note the difficulty in revising the use of IT infrastructure however, without a UHC system, as the private sector will underinvest relative to it’s social benefits, as they do not fully benefit from the cost of implementation (Anderson 2003).
         7. UHC would lead to an estimated 33-53% reduction in administrative costs, primarily due to reduced transaction costs and complexity (Scheinker 2021).
      3. Health outcomes are worse in the US.
         1. US expenditures are very high, but large expenditures do not reliably correlate with improved care. Out of 61 studies in a meta-analysis, 34% report positive of slight positive association between cost and quality, 30% report a negative or slight negative association between cost and quality, and 36% report no difference, or unable to determine (Hussey 2013).
         2. According to the WHO World Health Report, the US ranked 15th out of 25 industrialized countries for overall healthcare, even while we spend far more than other countries, almost 18% of GDP (World Health Report 2000).
         3. Our current system of fee-for-service distribution causes problems with pharmaceutical distribution as compared to peer countries with UHC. Low-quality and ineffective drugs are distributed through the US health system due to demands for rapid adoption of new treatments (Kyle 2017).
         4. Compared to 30 OECD countries, the US had much poorer aggregate utilization of both physician visits per capita and hospital days per capita, underusing the resources that currently exist (Anderson 2003).
      4. How does UHC address improved health outcomes?
         1. Improved handling of epidemics. With centralized information and automatic reporting, contact tracing travelers returning from countries infected with SARS and H1N1 was simple and effective in Taiwan (Hsiao 2016).
         2. Public (UHC or government subsidies) spending was compared with private spending (private insurance, over the counter purchases). Greater percentage of public spending (as a part of total health spending) results in reduced infant mortality and greater life expectancy. A one percent increase in public health expenditure reduces infant mortality by .077, and life expectancy by .026 years (Kim 2013).
      5. Huge amount of un/underinsured people in US.
         1. Before UHC began in 1995 in Taiwan, only 57% of Taiwanese were insured with private and government insurance, rising to 99% post implementation (Hsiao 2016).

Can UHC go wrong?

* Vermont
  + Perceived as economically viable, and with multiple expert analysis agreeing that this was the case (State of Vermont Health Care Financing Plan 2017[umass med], Hsiao 2011, Green Mountain Care financing report 2014). With roughly a total savings of 8-12% immediately and another 12-14% over the next 10 years, and only an increase in cost for employers of 9.4% and individuals of 3.1%.
  + Limitations seemed to originate from a combination of reduced federal revenue to support the plan, coverage expanding further to include nonresidents working in vermont (scope increase), yet all three estimations still showed this was economically feasible (McDonough 2015)
  + Plan was likely abandoned due to a combination of political considerations (Needed Republican votes to win election), and a lack of communication that lead to the perception that taxes would increase, but lack of awareness that employee premiums that workers pay would disappear (McDonough 2015).
  + The 11.5% increase in tax was projected to be less than what the median business currently pays in health care premiums resulting in a significant cost savings (Fox 2015).
  + Not due to lack of public support, of which there was a plurality (40% supp, 39% opp, 21% unsure), but instead due to proportionally larger taxes on business, and an inability to convey that these taxes would functionally replace current premium costs. (Fox 2015)
* Oregon
  + Oregon Medicaid expansion based on lottery drawing from a waiting list allowed for objective evaluation of benefits of single payer (UHC). Found that Medicaid coverage increase did not improve measured physical health outcomes. However, saw significant benefits in form of increased health care utilization, greater diabetes detection/management (continuing conditions), lower depression, and ‘nearly eliminated catastrophic out of pocket medical expenses, while significantly reducing out of pocket spending and medical debt as a whole. (Baicker 2013).
    - Improved self-reported health, primarily, and mental health as an aspect of that specifically.
  + Largely, criticism has been levied at the system insofar as it did not reduce emergency department demand, as well as did not show improvements in directly measured health, such as blood pressure, cholesterol, blood sugar, tobacco use, or obesity (James 2015).
  + From a political perspective, 62% of Oregon voters would either definitely, or probably, support a state administered UHC plan that lead to doubling or tripling state taxes. However, it is seen as politically infeasible due to legislative anticipation that they would endanger their re-election (Rosenberg 2020).

Writing on mediational effects

* Given a mediation hypothesis, no need to consider the significance of the total effect -1 because it is irrelevant to the presence of an indirect effect, as the indirect effect is estimated by different models than TE-1.
* Global model test doesn’t make a lot of sense because we want to know about a particular mediation effect and their presence or not.
* Frazier 2004
  + Step 1: We first show that our predictor is related to our outcome by regressing our outcome on our predictor, then show that the unstandardized regression coefficient associated with the effect of predictor on outcomes was significant. Finding that this path (path c) is significant, the requirement for mediation in step 1 was met
  + Step 2: To establish that our predictor is related to our mediator, we then regressed our mediator on our original predictor (same as step 1, just w/ our mediator as our regression target instead of our original outcome), then show that our unstandardized regression coefficient associated with this relationship is significant. If so, the condition for step 2 is met (path a is significant).
  + Step 3: To test whether our mediator is related to our outcome, regress our outcome simultaneously on both our mediator and our predictor. The coefficient associated with the relationship between our mediator and our outcome should STILL be significant. If so, the condition for step 3 is met (path b is significant). This third regression equation provides an estimate of path c’, the relationship between our predictor and our outcome, controlling for our mediator. If that coefficient is 0 or nonsignificant, this shows complete mediation. Indicating that it is smaller than path c shows the degree of significance.
* Other methods?
  + 1 and 2 are the same, but step 3 is done w/ some bootstrapping and simulation?
* Tingley 2004 - Example
  + Framing influences opinion on immigrants. Framing is predictor, mediational relationship proposed of anxiety as a function of framing treatment.
  + Step 1 – Fit mediator model where anxiety (mediator) is modelled as function of our framing treatment and covariates.
  + Step 2 – Model our outcome variable with our mediator and all other covariates.
  + Step 3 – Use the mediate function to estimate Average Causal Mediational Effects (ACME), and Average Direct Effects (ADE). What happens is bootstrap simulations (quasi-Bayesian monte carlo method based on normal approximation) (can set robustSE to FALSE if standard uncertainty estimates are desired).
    - Looking at the output, we can see whether or not our estimated ACMEs are statistically different from 0 or not, and whether our estimated average direct and total effects are not.

Addendum on 8-18-21 Introduction revisions from VAS

* Older studies that show racism and UHC
  + Byrd 2011 – Shows more blacks/latinos/minorities support healthcare reform compared to whites
  + Lillie-Blanton 2000 – Shows that blacks believe race affects their outcomes, while whites feel the opposite.
* Previous Interventions to increase support for UHC?
  + Sanchez 2016 – Latino population, focused on ‘shared fate’ communication
    - Intervention was a ‘linked fate’ saliency item
      * “How much their personal success is dependent on the success of Latinos in general” – from (1) not at all to (4) a lot.
        + Was significant predictor
        + Supposed to be supportive of health reform not due to self-interest but because of recognizing the vast disparity that Latinos face RE: health insurance (a.k.a. Equity?)
        + Other sig predictors – age, gender, democratic party
    - Measured Support for UHC as a binary: “When it comes to healthcare, do you think the federal government should ensure that all people have health insurance, even if it means raising taxes, or do you think we should continue with the current health-care system?”
  + Bump 2014 – Turkey had several stakeholders directly opposed to UHC implementation in the country,
    - Also, DIRECTLY improved support for UHC by cutting unpopular practice
      * Holding patients until bills are paid
      * Increasing room in facilities for patient care
      * 3-5 fold increase in vehicles for emergency services.
    - Trade Unions – believed that benefits would decrease under UHC
      * Originally was a very basic package, but “as the group continued its discussions, equity emerged as an increasingly important consideration”. Eventually, equity was ensured as part of the process, leading to reduced opposition from trade unions.
    - White Collar Civil Servants
      * Were not able to persuade them, eventually decided to just exempt current civil servants (allow them to have no changes)
    - Health Workers
      * Significantly increased salaries for physicians/health workers in public sector work.
    - These adaptations can be considered actual interventions within the process of producing a functioning UHC system.
  + Goldsteen 1997 - Antigovernment Sentiment and support for UHC are not incompatible, individuals can express both.
    - Recommends an intervention – specifically that one strategy that might work is to increase support for UHC by appealing to self-interest. Considering that essentially every American, regardless of how well of, is still vulnerable to losing insurance due to job loss.
  + Knoll 2015 – Finds that the concept of ‘nativism” predicts strongly lack of support of health care reform.
    - Measured as “newcomers threatening American values, or newcomers strengthening American society”.
    - Large amounts of nativism predicts opposition to UHC, considered novel because UHC does not directly tie to nativist concerns such as immigration.
      * This is even after controlling for partisanship, ideology, and racial resentment (all of which have independent significant effects on health care reform opinions).
  + Makaka 2012 – Interventions intended to assess effect of initiatives to increase actual boots on the ground type support for UHC.
    - Financing of local regions was directly tied to proportion of health coverage in a district, increasing motivation/incentivizing leaders to enroll.
    - Household cooperative savings has lead in some situations for up to 40% of premiums being fully pre-paid 3 months in advance.
    - Wealth categorization, decided collectively per citizen by members of the village (based on ability work, assets, income, etc.) was embraced wholeheartedly and allowed for coverage to balloon to 90%, allowing for the most vulnerable citizens to be assisted.
  + Issues with UHC without HBP
    - Agyepong 2016 -