PHYT 572 Evidence Based Practice II
Module 4: Evidence Based Table

PICO Question: For low-income patients, does a government-mandated universal coverage healthcare system result in a higher quality of life/healthier population compared to the current U.S. system?

GDPHE= gross domestic product health expenditure; CVRF= cardiovascular risk factors; NZ= New Zealand; w/o= without; OOP= out of pocket

Author, Year, Journal, Title	**Study Purpose, Design**	**Relevance**	**Subjects**	**Outcome Measures**	**Results**	**Clinical Relevance/ Application to PICO**
Martinson et al. 2011 *Am J Epidemiol* Health Across the Lifespan in the U.S. and England.	To compare health indicators, primarily indicators for chronic disease, in England and the U.S. for those age 0-80 *Case Control Design*	The U.S. spends 2X more per capita on healthcare than does the U.K. The U.S. spends more per capita than any other country. Yet, Americans have lower life expectancies and higher infant morality rates than those in the U.K.	A national representative sample of 5,000 Americans assessing various health and nutrition issues (via interviews and physical assessments). An HSE sample from England was also conducted. Respondents were then categorized into "stages of life groups" with no one over 80 y.o. included in sample.	Various health indicators were compared between the U.S. and England, including: obesity, HTN, diabetes, high C-reactive protein, HDL cholesterol, high cholesterol ratio.	The U.S. shows higher rates of chronic disease than England across all diseases except HTN. These rates for the U.S. are higher across all age groups, not just the elderly.	Americans have an overall worse health status and higher rates of disease than those in England. This difference is not attributed to socio-demographic characteristics, behavioral risk factors, or health insurance coverage. Americans are disadvantaged across the lifespan, beginning as infants. Supports that universal health coverage should be considered in the U.S.
Collet et al. 2011. *Journal of General Internal Medicine.* The Quality of Primary Care in a Country with Universal Health Care Coverage	To assess the delivery of preventative and chronic health care for individuals in Switzerland, a country with universal health care coverage. *Cohort Design*	Switzerland has a universal health care coverage system and is generally considered one of the healthiest nations. This study assesses quality of care in Switzerland in order to compare the Swiss and U.S. systems.	Random sample of 1002 adults age 50-80. 445 women (44.4%) and 557 men (55.6%) Mean age: 63.5±8.3	37 quality indicators from RAND's QA Tools. 14 for preventative care, 19 for chronic care, 4 for chronic care for CV disease.	Swiss adults in primary care settings received 69% of recommended preventative care and 83% of chronic care of CVRF's. Men and those under 65 were more likely to seek prevent. medicine.	Swiss adults receive 69% of recommended preventative care while U.S. adults only receive 55%. Although Switzerland has universal health care, there are still improvements needed in prevent. care (as in the U.S). Supports that universal health coverage should be considered in the U.S.

Pritchard et al. 2011 *JRSM Short Reports*. Comparing the USA, UK, and 17 Western Countries' Efficiency and Effectiveness in Reducing Mortality.	To compare the GDPHE: reduced mortality rate expenditure between the US, the UK, and 17 other Western Countries over 25 years to evaluate which country utilized the most effective use of health care expenditure. *Cross-Sectional Design*	Each of the 19 countries studied have seen major reductions in death rates resulting in increased life expectancies. However, incredible amounts of money have been spent to achieve this.	Available reported data for mortality rates for the years between 1979-2005. Ages ranged from 15-74.	"Adult" mortality rate (age 15-74) and "Older" mortality rate (age 55-74) were the two major outcomes used. Health conditions were assessed using large, well-established databases.	All countries mortality rate decreased between 1979-2005. In 2005, the U.S. had the "highest" adult mortality rate that was 1 s.d. above the mean. The U.S. had the smallest reduction is "older" mortality rate. The U.S. showed the most significant increase in GDP. The U.S. showed the worst cost-effectiveness. Yet, there were more than 543,000 fewer deaths.	The. U.S. has spent a tremendous amount of money to decrease mortality rates and increase longevity. Therefore, despite the increased spending it appears the money has been well spent, especially when you consider that more than 500,000 Americans are alive today, who would not have been alive 25 years ago. However, the U.S. is spending much more than the rest of the world and we obviously are not making as good use of our resources as they are. Supports that universal health coverage should be considered in the U.S.

Brubaker et al. 2011 *Am J Roentgenol.* Health Care Systems of Developed Non-U.S. Nations: Strengths, Weaknesses, and Recommendations for the U.S.- Observations from Internationally Recognized Imaging Specialists	To survey a group of world-renowned radiologists to identify their impression of their own health care systems along with recommendations for the U.S. health care system. *Expert Opinion*	In 2007, the U.S. was last or 2nd to last on measures of performance (quality of care and access) when compared to Australia, Canada, Germany, New Zealand, and the U.K. In 2009, 46 million Americans were uninsured.	18 world-renowned imaging experts from 17 developed nations with universal health care coverage systems.	Types of coverage, strengths and weaknesses of health care systems, and percentage of GDP	12/17 countries state that the greatest strength of their health system is the universal coverage. 82% of the experts report that that the number one recommendation for the U.S. to improve health care is to transition to a "public funded health care system"	Expert Opinion supports the fact that universal health coverage should be considered in the U.S. However, a major concern for the U.S. in a universal health care system would be the lower salaries for health care providers (especially doctors) and the lower reimbursement rates.
Schoen et al. 2010 *Health Affairs.* How Health Insurance Design Affects Access to Care and Costs, By Income, in 11 Countries.	To compare insurance-related experience of individuals in the U.S. and 10 other countries to determine how coverage designs effects health care. *Cross Sectional Design*	As the U.S. prepares to implement the Affordable Health Care Act, research on the advantage and disadvantages of health care systems in high-income countries needs to be examined so that we can implement key characteristics into our plan in the U.S.	Sample size was listed for each country. Sizes range from 1,000 in NZ to 3, 552 in Australia.	Patient confidence, cost related access, access to providers, wait times for primary/ secondary care, problems dealing with insurance companies, and health care affordability Results compared low and high-income respondents. .	Respondents with insurance design that provided comprehensive benefits and cost sharing were the most confident about health care affordability. U.S. had the least confidence in their ability to afford health care, most likely to have gone the longest w/o health care b/c of cost, most likely to spend the most OOP, least likely to have confidence that they would receive effective tx.	Supports that universal health coverage should be considered in the U.S in order to protect access and reduce income disparities. Insurance design directly affects access to care, costs and patient perception of affordability and interaction with insurance companies.

Thorpe et al. 2007 *Health Affairs.* Differences in Disease Prevalence as a Source of the U.S. Spending Gap.	To investigate the differences in disease prevalence and treatment rates in the U.S. and 10 other European countries for 10 of the most costly health conditions. *Case Control Design*	The U.S. spends much more on health care than does any other European country; yet, disease prevalence continues to be much higher in the U.S. This study examines the relationship between increased U.S. spending and increased disease diagnoses and higher rates of tx.	The authors randomly chose their sample from the HRS (U.S. database and SHARE (European database). All participants were 50+ y.o.	The variables analyzed were chronic risk factors (obesity, smoking rates) and chronic disease rates. The authors created a "treatment prevalence rate" and an estimate of "cost per diagnosed case" in an effort to compare the U.S. and Europe.	Obesity and smoking rates were highest in the U.S. The treated prevalence rate was highest for all condition in the U.S. The medication-treated prevalence was highest in the U.S. for all conditions but high blood pressure, DM, and arthritis.	Americans are "sicker;" however, this is highly related to aggressive diagnosis and treatment prevalence rates. Programs designed to prevent these diseases needs to be better implemented in the U.S. in an effort to control spending.
Starfield et al. 2002 *Health Policy.* Policy Relevant Determinants of Health: An International Perspective	To examine the strength of the primary care infrastructure of health care systems in relation to the overall costs of health services. *Case Control Design*	Previous studies indicate that greater income disparities result in poorer health. This study focuses on income inequality to assess how primary care infrastructure is related to health care services.	Health data extracted from the OECD and the WHO from the 13 countries examined in the study.	Various measures including % of active physicians involved in primary care versus number in specialty care, access to care, strength of academics for primary care, type of primary care practitioner, how primary care is financed, etc.	The U.S. was deemed a "poor primary care infrastructure." Many countries were with universal health care were considered "strongest primary care infrastructures" U.S. ranked "generally poor" on most health indicators. No clear relationship between income distribution and primary care rankings.	Supports that universal health coverage should be considered in the U.S, especially in efforts to improve primary care. Income disparities are not the entire reason for health disparities.

Avendano et al. 2009 Health Disadvantage in US Adults Aged 50-74 Years: A Comparison of the Health of Rich and Poor Americans with that of Europeans	To examine the health of older U.S., English, and other Europeans, stratified by wealth. *Cross Sectional Design*	Americans spend up to 3X more on healthcare than do Europeans; however, research shows that older adults are less healthy than their European counterparts. This study will examine how the U.S. and England compare to other European countries across socio-economic levels.	Individuals age 50-74 y.o. U.S. data was collected from the HRS and included a sample size of 9,940. English data was collected from the ELSA and included a sample size of 6,527. European data was collected from SHARE and included a sample size of 17,581.	Chronic disease and disability.	U.S. adults report worse health at every socioeconomic level. Excluding cancer, higher socioeconomic status correlated to better health in the U.S., England, and Europe. The greatest U.S. health disparity was for those in the lowest wealth tier. Health disparities by wealth were lowest in Europe and highest in the U.S.	U.S. adults of all socio-economic levels between the ages of 50-74 years report worse health than English and European counterparts. Poor Americans have the worst health, but even wealthy Americans report health comparable to poorer Europeans. Although socioeconomic status does have an effect on health, it is clear that the health care systems of European countries is something that the U.S. should investigate.