



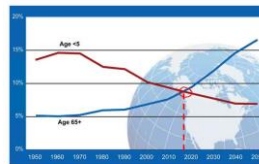
**PRODUCTIVE AGING, HEALTH, AND WELL-BEING
AMONG CHINESE OLDER ADULTS: FINDINGS
FROM WUHAN, TAICHUNG, AND HONOLULU**

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Background I: World Population Is Aging

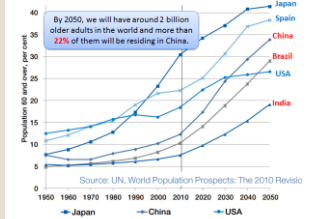
- As a result of falling **fertility rate**, shift of leading causes of death, and increases in life expectancy, world population is aging rapidly.

Figure 1
Young Children and Older People as a Percentage of Global Population: 1950-2050



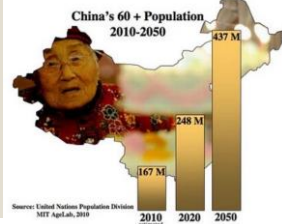
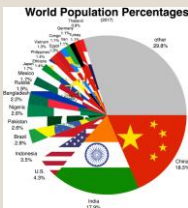
Source: United Nations, World Population Prospects: The 2010 Revision
 Available at: <http://esa.un.org/wpp/>

Figure 2: Major developing countries will start converging with developed ones



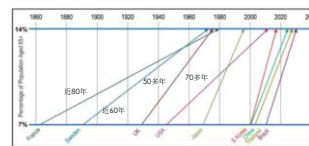
Background II: Population in China is Aging

- China, the most populous country in the world, has the largest elderly population in the world.
- According to the UN estimates, the percentage of its older population (60+) is projected to reach 19.5% in 2025 and close to 30% in 2050.



The Speed of Population Aging

Time required or expected for percentage of population aged 65 and over to rise from 7 percent to 14 percent



Source: Kimella K, He W, *The Aging World* 2009. Washington, DC: National Institute on Aging and U.S. Census Bureau, 2009.

讨论：人口急速老龄化的后果是什么？



To Understand Healthy Aging...

- "Successful aging" (Havighust 1961): can be achieved by maintaining higher levels of activities in late life.
- Activity theory
- Continuity theory
- A positive gerontology

The MacArthur Model of "Successful Aging" (Rowe & Kahn, 1987)

- Previously, gerontology has the tradition to only focus on the distinction between the pathologic and **non-pathologic** (no diseases or disabilities).
- Rowe and Kahn proposed the distinction between two groups of **non-pathologic** older people—**Usual** (no disease but high risk) and **successful** (low risk and high function).
- Defined successful aging as including three main components:
 - Low prob. of disease and disability.**
 - High cognitive and physical functional capacity.**
 - Active engagement with life.**

The Forum

Successful Aging' is an article written by John W. Rowe and Robert L. Kahn, 1987. It is a seminal work in the field of gerontology, discussing the concept of 'successful aging' and its components: low probability of disease and disability, high cognitive and physical functional capacity, and active engagement with life. The article is a key reference in the field of gerontology and has been widely cited in subsequent research.

Successful Aging'

John W. Rowe, MD¹ and Robert L. Kahn, PhD²

In an earlier article (Rowe & Kahn, 1987), we proposed the distinction between two groups of non-pathologic older people—Usual and Successful Aging. Usual aging is characterized by the presence of disease and disability, while Successful Aging is characterized by the absence of disease and disability, high cognitive and physical functional capacity, and active engagement with life. The article is a key reference in the field of gerontology and has been widely cited in subsequent research.

Active engagement with life

- Two forms
 - Interpersonal relations: contacts and transactions with others.
 - Productive activity: activity that creates value despite of reimbursement.
 - Caring for family members 照料者
 - Working as a volunteer 志愿者

Activity theory

- This theory was proposed in responding to the **disengagement theory** (older people should withdraw from social relationships and from the society as they get older). 慢慢退出社会舞台和人际关系。
- Activity theory proposed that successful aging can occur if older adults **stay active and maintain their social relationships**.

Continuity theory

- Despite their changing physical health, mental health, and social status, older adults usually will maintain the same structures of activities, behaviors, and social relationships as they did in their earlier years.
- Continuity theory does not offer a static view. Instead, it allows for various changes to take place within the context of the continuous internal and external structures.
- For instance, older adults often view new changes as being linked to and fitting with the past internal psychic history of personality, experiences, dispositions, preferences, ideas, and skills.



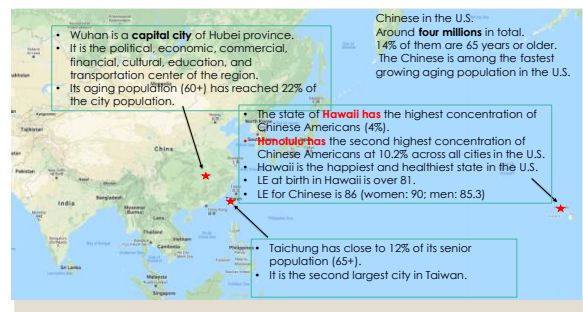
Background III: Productive Aging Perspective

- All these theories along with others give rise to a new perspective—**productive aging perspective**.
- Productive aging (focusing on opportunities rather than challenges associate with aging): emphasizes **contributory behaviors** and acknowledges older adults' abilities to contribute to their family, community, and society through meaningful activities.
- Previous studies have increasingly documented that engaging in contributory behaviors may not only promote health and well-being of older adults, but also relieve fiscal strain of the aging society and maintain its economic sustainability.

Aim of the Project

- This project aims to examine social and cultural correlates of healthy aging among Chinese older adults.
- We plan to explore this major inquiry among Chinese older adults residing in three different social contexts
 - Wuhan
 - Taichung
 - Honolulu

These three sites share similarities and differences that allow meaningful comparisons.



Local resources



Local resources

- In Taichung, we have a collaborative team in the Department of Sociology at Tunghai University.
 - In Wuhan, we were collaborating with Wuhan CDC.
 - In Honolulu, we got a pilot funding from NYU to support data collection.
- Major themes and questions included in survey questionnaires are more or less similar for all these three study sites.



Taichung City

- Sampling frame:** population between the ages of 56 and 85 based on the official household registration provided by the Taichung City Government.
- Multistage **stratified random sampling strategy** (city/counties, districts, administrative neighborhoods, and individuals) was used to select respondents to participate in the face-to-face interviews.
- We collected data from **645** respondents.

Taking care of preschool grandchildren
Playing with preschool grandchildren



Fig. 1. Conceptual framework.

Major Findings in Taichung I

	Age 56-65 (n=119)	Age 66-75 (n=199)	Age 75+ (n=98)	All (N=416)	F / χ^2
Self-rated Health	1.51 (0.93)	2.25 (0.94)	3.10 (1.02)	3.37 (0.96)	***
Work Engagement					
Employment Status (%)					***
Out of Labor Force	49.22	73.37	87.76	63.15	
Full-time Employment	39.18	16.58	4.08	26.30	
Part-time Employment	11.60	10.05	8.16	10.55	
Family Engagement					
Financial Support	1.66	1.28	1.14	1.45	***
Instrumental Support	1.22	0.74	0.59	1.02	
Emotional Support	2.82	2.78	2.22	2.71	**
Instrumental Grandparenting	1.62	1.57	1.50	1.60	
Leisure Grandparenting	2.91	2.79	2.66	2.83	
Community Engagement	1.29	1.22	1.26	1.27	
Volunteering (%)	2.17	2.82	3.46	2.59	***
Educational Activities (%)	1.63	1.73	1.55	1.72	
Religious Groups (%)	2.26	3.12	3.74	2.77	***
Community Clubs (%)	1.65	1.57	1.24	1.65	
Community Care Stations (%)	16.61	14.07	9.18	14.61	
Educational Activities (%)	16.93	14.07	9.18	14.77	
Religious Groups (%)	22.26	20.10	19.89	21.10	
Community Clubs (%)	42.95	38.19	21.43	37.99	***
Community Care Stations (%)	12.23	13.07	6.12	11.53	

- Respondents from older age groups reported significantly lower levels of SRH and productive engagement.
- Respondents from older age groups reported higher levels of grand-parenting.

Major Findings in Taichung II

	Model 1	Model 2	Model 3
Work Engagement			
Full-time Employment	0.06 (0.379)	-0.09 (-0.212)	-0.06 (-0.464)
Part-time Employment	1.02 (1.323)	0.86 (0.884)	1.43 (1.267)
Family Engagement			
Financial Support	0.01 (0.02)	0.03 (0.03)	0.03 (0.03)
Instrumental Support	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Emotional Support	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Instrumental Grandparenting	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Leisure Grandparenting	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Community Engagement			
Volunteering (%)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Educational Activities (%)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Religious Groups (%)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Community Clubs (%)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Community Care Stations (%)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Psychological Resources			
Sense of Control	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Social Resources	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Making New Friends	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Schedule Compliance	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Self-reliance	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Regularity	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)

This table shows whether and how different types of productive engagement affect SRH.

- Work-related engagement is not associated with SRH.
- Emotional support to adult children and leisure grandparenting is related to better SRH, whereas instrumental grandparenting works in the opposite direction.
- Community-related engagement shows a strong relationship with psychosocial resources but they only influence SRH moderately.

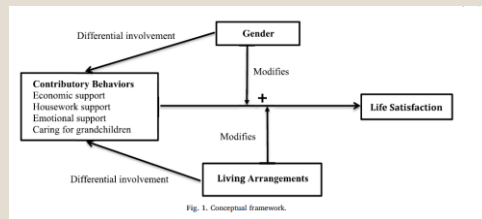
Implications: the health benefits of contributory behaviors are determined by the **content** of the behaviors.

The content of the contributory behaviors really matters!

Wuhan

- By the end of 2017, its aging population (60+) has reached 22% of the city population (Wuhan Bureau of Civil Affairs, 2015).
- We collected our data primarily in **Jiangnan** district that has the highest GDP among all 13 districts in Wuhan.
- This district has a higher in-migration rate and/or a lower out-migration rate compared to the city.
- The estimated aging population (60+) is 25% of the district's total population.
- Survey participants consist of residents, 55 years of age or older.
- Convenient sampling** is the main approach to recruit survey participants.
- Got connected with **administrative directors (街道主任) (gate-keepers)** from 11 sub-districts (街道) (out of a total of 13 sub-districts) in Jiangnan. Within each sub-district, there are around 8-10 communities (社区).
- May 2017 to July 2017, researchers successfully collected surveys from a total of 897 community-dwelling residents age 55+ from Jiangnan district, Wuhan.





Why life satisfaction?

- With the increasing LE in China, it is essential to examine whether Chinese could live a better QoL when they get older.
- WHO defines QoL "as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns."
- We focused on LS as an important indicator of quality of life due to two major reasons:
 - Compared to objective measures, LS provides a more sophisticated understanding of one's living circumstance as it considers people's different reaction, interpretation and adjustment to external social conditions.
 - LS is a more stable and diversified measure compared to other indicators of QoL such as happiness and self-esteem.

What contributory behaviors?

- The Western literature has greatly emphasized contributory behaviors that create **economic values and sense of fulfillment** such as continuously working....
- This understanding may not be applicable in the Chinese context as working after retirement is not culturally valued and contradicts to the filial piety norm. **This is exactly what we found using data collected in Taiwan.**
- One of the most prevalent forms of productive aging in China is to engage in contributory behaviors involving family members
 - Providing economic support
 - Providing housework support
 - Providing emotional support
 - Providing care to grandchildren

Why CBs might promote LS?

- Role theory, activity theory, and social integration theory all emphasize that maintaining social roles and social networks after retirement is crucial to individual WB.
 - Purpose
 - Meaning
 - Guidance
 - Identity
 - Belonging
 - Etc.
- Specific to the Chinese cultural context, engaging in CBs that can provide intergenerational support are **culturally valued** and **economically rewarded**.
 - The filial piety norm emphasizes co-residence and interdependence among generations.
 - Adult children usually provide economic support
 - Older parents often provide housework support and care support.

Intergenerational exchange to maximize family economic well-being

Roles of gender and living arrangements...

- Gender and living arrangements are important in the relationship between CBs and LS as they are closely related to **resource allocation** and **role expectations**.
 - Typical division of household labor is still very traditional in China: Women are expected to take care of family members and household chores...
 - Gender disparities in SES and health outcomes...
- Although social norms in China greatly emphasize co-residence and mutual support among generations, non-traditional households have increased substantially recently
 - Empty nest households
 - Skipped generation households 随迁家庭 “一锅汤的距离”
- Will changing features of living arrangements in China affect levels of contributory behaviors as well as their effects on LS among older Chinese adults?

Hypotheses

- Hypothesis 1(a):** Compared to males, females tend to engage in more contributory behaviors. Gender difference Difference by living arrangement
- Hypothesis 1(b):** Compared to those living in other arrangements, older adults living in multigenerational households tend to engage in more contributory behaviors.
- Hypothesis 2:** Engaging in contributory behaviors is positively associated with life satisfaction.
- Hypothesis 3(a):** The association between contributory behaviors and life satisfaction is modified by gender.
- Hypothesis 3(b):** The association between contributory behaviors and life satisfaction is modified by living arrangements.

Major Findings in Wuhan I

Table 1 Sample characteristics by gender and living arrangements (N=809)

Mean (SD) PCI	Gender		Living arrangements		
	Male (n=307)	Female (n=502)	Living with spouse only (n=283)	Living with spouse and other family members (n=277)	Living with others (no spouse) (n=171)
Life satisfaction	17.21(3.66)	17.19 (17.23)	17.91	17.00	16.73
Focal Independent Variables					
Contributory behaviors	12.21(3.01)	11.94 (12.37)	11.69	12.90	12.33
Economic support	2.63(1.03)	2.68 (2.60)	2.58	2.65	2.67
Housework support	1.62(1.04)	1.59 (1.14)	2.73	3.33	3.19
Emotional support	1.58(1.11)	1.15 (1.31)	3.23	3.34	3.15
Provide care to grandchildren	0.92(1.1)	3.21 (3.33)	3.15	3.57	3.32

Suggests that the traditional division of household labor still exist in China.

- Women are still expected to bear more obligations in caring for family members.
- Women retire earlier than men and this makes females generally are more available...

- Family members have more opportunities to exchange labor and economic resources.
- Another alternative explanation: different generations expect and need more mutual support so live together...

Major Findings in Wuhan II

Table 2 Ordinary least squares (OLS) regressions: Regress life satisfaction on contributory behaviors and control variables

Focal Independent Variables	Life Satisfaction (N=809)	
	Model 1	Model 2
Contributory behaviors		
Economic support	.10(.05)*	-.02(.13)
Housework support		-.16(.15)
Emotional support		.44(.16)**
Provide care to grandchildren		.22(.15)*
Control Variables		

Contributory behaviors in general and emotional support and caring for grandchildren in particular are positively related to life satisfaction.

- Providing emotional support is usually reciprocal. And frequently offering or receiving emotional support is an indicator of intimacy and trust among family members, indicating family cohesion. 家庭凝聚力!
- Grandparenting is beneficial as it not only is consistent with collectivism and family solidarity, but also improves family's economic conditions.

Major Findings in Wuhan III

Table 3 Ordinary least squares (OLS) regressions: Regress life satisfaction on contributory behaviors and control variables by gender

Focal Independent Variables	Males (n=307)		Females (n=502)	
	Model 1	Model 2	Model 1	Model 2
Contributory behaviors				
Economic support	.08(.08)*	-.03(.26)	.10(.06)*	-.02(.17)
Housework support		-.13(.28)		-.19(.19)
Emotional support		.44(.28)*		.45(.20)*
Provide care to grandchildren		.12(.22)*		.28(.20)
Control Variables				

Contributory behaviors in general and emotional support in particular are positively related to life satisfaction for both gender groups. However, providing care to grandchildren is only related positively to LS for males but not for females. 与上海研究发现 (SRH and FWS) 一致! 1.1

- Division of labor in grandparenting...
- Role strain...

Major Findings in Wuhan IV

Table 4 Ordinary least squares (OLS) regressions: Regress life satisfaction on contributory behaviors and control variables by living arrangements

Focal Independent Variables	Living with spouse only (n=283)		Living with spouse and other family members (n=277)		Living with others (no spouse) (n=171)		Living alone (n=78)	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Contributory behaviors								
Economic support	.04(.08)	-.03(.24)	.21(.09)*	.07(.24)	.03(.08)	.00(.27)	.01(.17)	.04(.65)
Housework support		-.20(.28)		-.14(.26)		-.47(.29)		-.75(.69)
Emotional support		-.38(.26)*		-.06(.28)		.36(.34)		.78(.56)
Provide care to grandchildren		-.18(.24)		.49(.24)*		.32(.28)		.33(.67)
Control Variables								

- Older adults who live alone or live with spouse only are engaged in other productive activities and this makes rewards from...limited.
- Caregiving behaviors for those who do not live with their grandchildren are short-term...

Grand-parenting is a very good topic for future exploration! We should develop more sophisticated measures to assess the duration of caring (how long), content of caring, and if the caring behavior is coexist with other social/cognitive activities.

Hypotheses

Hypothesis 1(a): Compared to males, females tend to engage in more contributory behaviors. **Yes**

Hypothesis 1(b): Compared to those living in other arrangements, older adults living in multigenerational households tend to engage in more contributory behaviors. **Yes**

Hypothesis 2: Engaging in contributory behaviors is positively associated with life satisfaction. **Yes**

Hypothesis 3(a): The association between contributory behaviors and life satisfaction is modified by gender. **Partially supported**

Hypothesis 3(b): The association between contributory behaviors and life satisfaction is modified by living arrangements. **Partially supported**

Limitations

- We used cross-sectional data and this prevented us from making **causal inferences**.

- Generalizability** of the current study is limited.

- Although we reached out to as many communities as we could to make data more inclusive.

- The data were only based on one major district of Wuhan.

- Recruitment of respondents was largely based on convenient sampling.

- Findings on this cohort of older adults may not be applicable to other cohorts given the rapid social changes taking place in China.

- Findings in Wuhan highlight the beneficial effects of contributory behaviors.

- Our findings also provide evidence supporting that Chinese older adults are still very active in providing support to their family members despite rapid cultural and social changes.

- For policy makers, the design of new elder care programs in urban areas should take into account the importance of family ties and family support to older adults.

The Honolulu Study

The following photos are from the Hawaii State Archives of Chinese Sugar Mill workers in the late 1800's and Chinese immigrant family living in Honolulu in 1893:



Research Objectives

- To explore the lay-perspectives of successful /healthy aging among older Chinese adults in Hawaii.
- To look for common factors that may define and affect these perceptions.

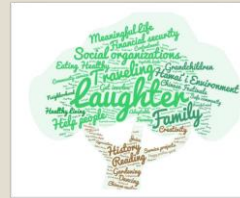
Two Focus Groups

- The first focus group was consisted of all female participants who had a long history of friendship stemming back 40-50 years. Most were born and raised in Hawai'i from second to fifth generation Chinese.
- The second focus group consisted of both Chinese elders who were born and raised in Hawai'i and elders who were born in China and immigrated to Hawai'i.

Focus Group Questions

- What makes a person age in a successful way?
- What activities are you engaged in regularly and why?
- Do you think there are certain activities that are particularly relevant to Chinese culture?
- How do you manage to maintain your health? Are there any challenges?
- Given all these components you just mentioned, how would you define "successful aging?"

- After the focus group, we transcribed the audio recording of the sessions word by word.
- Measures were taken to de-identify the participants to protect their identity and confidentiality.
- The transcript was time coded and voices of the research team members were separated and removed from the theme analysis. **The primary purpose of the transcript is to analyze the major themes and highlights of the focus group discussions.**
- Each topic/question was carefully noted to represent words or phrases most frequently described by the participants.



Used a free on-line word cloud generator to create this word tree.

"Laughter" and the related concepts of happiness and joy

--"Laughing is so good to your health, its so important."

--"It is not necessary to be **so serious** in life. I think it's better to take things you know what, lightly and with a lot more laughter I guess."

--"I don't harbor ill feelings. I am kinda happy and I like to get along with people."

—“I, you know, with my elderly friends that I would usually wish them for their birthdays. One is **joy**, get the joy out of living. And one is **health**. I believe health is very important. And another thing I wish them is **peace** and peace includes financial security and your own positive thinking. And another one is the **contentment**. You don't compare yourself with the other people, so I think its **joy, health, and peace**. These things compose a good aging.”

Productive Aging! ! ! !

Social engagement and the resulting sense of belonging, meaning, and purpose in life

--"I think for me being involved with a lot of activities is the key. If I didn't have a lot of things to do, I think I would be extremely depressed."

--"And when you feel there are worthwhile things to do, that there are meaningful things that you are a part of, it makes you feel good inside your heart. And that is something very positive."

Several women stressed the importance of **giving back to the communities...**

--"I think the important thing to be successful in aging is to be able to give, to serve, to have a meaning..."

--"You wanna have meaning in life and now that you're retired, you can give back to the community and help **other people**."

Eating healthy, eating right, and eating together

--"I think food is a whole, you're not supposed to overdose. You're supposed to go moderate."

--"The morning should like ginger. So, the Chinese medicine they have to tell when to eat, its not every time in the day."

—“My dad was 86 when he passed. After my dad died, my mom started withdrawing. You know stop doing, the walking thing and all that...She’s not eating, not eating alone. Even when she eats, she eats with my brother, mainly not eating alone.”

To value both dependence (on a supportive social network) and independence (on financial security)

--"You know, I have a daughter but it's different from connecting with my friends, girlfriends, is on a different level than what I would connect as a mother-daughter type of relationship."

—“It goes from lunch until like almost dinner. Talk story, talk story, lots of stories.”

—“Part of the success is not asking my children for money or having them pay.”

--"I wonder if the reason why Chinese live longer is because they're more financially Akamai (smart or clever) about things, you know take care of themselves, right."

--"I think Chinese stress the value of education. I think that's really important...stressing the education, and more of nurturing your children that way, and teaching them be to independent you know. I think that's important."

Conclusion

- Our findings reveal that a **positive outlook, an engaged life**, healthy eating habits, **good health**, supportive social networks, and **economic independence** are among the most important components of ageing well from the perspective of elderly Chinese.
- Our findings indicate that the lay perceptions of ageing well go beyond the traditional biomedical dimensions to include more **psychosocial and cultural** components.

Limitations

This study is explorative

- Only two focus groups were conducted.
- Respondents were predominantly females.
- Immigrants were largely missing.

Future directions

- Refine questions to be asked in the focus groups.
- Invite more males and immigrants into the conversation.



Honolulu

- The inclusion criteria for the survey participants consist of **Honolulu residents, 55 years of age or older and self-identified Chinese**.
- **Snowball sampling and convenient sampling** were the primary approach used to identify and recruit key informants from local Chinese groups, social organizations, local businesses, and faith-based agencies.
- The key informants were identified based on their ability to access Chinese communities and their willingness to help recruit Chinese elders in the community.
- Researchers met with these key informants and explained the purpose of the research project as well as their expected responsibilities. Through the connections of key informants, the research team was able to make presentations and announcements during community meetings and worship services.
- From December 2017 to September 2018, our research team successfully collected surveys from a total of **430 community-dwelling residents age 55+** in Honolulu, Hawai'i.

The network goes on and on and on...



Summary: 三地比较研究

- **In Taichung:** The health benefits of contributory behaviors largely depend on the content: Contributory behaviors that are endorsed by Chinese culture such as **emotional support and leisure grand-parenting** are beneficial to SRH.
- **In Wuhan (in Shanghai as well):** Contributory behaviors **at the family level** promotes life satisfaction (SRH and Psychological well-being) in general, but certain type of contributory behavior such as **caring for grandchildren only promotes life satisfaction for males but not for females** (this is also true for older adults in Shanghai). Some types of contributory behaviors such as financial support and housework support are not associated with increased levels of life satisfaction as they are not consistent with Chinese culture and norms.
- **In Honolulu:** We still see the health impact of Chinese culture: Chinese dietary habit and a positive outlook matter. Social cohesion matters...Most importantly, older adults here greatly value **productive activities** for society instead for family members.

Similarities and differences...

Questions

