

GENERATION 1.5: YEARS IN THE UNITED STATES AND OTHER FACTORS AFFECTING SMOKING BEHAVIORS AMONG ASIAN AMERICANS

Lu Shi, PhD¹; Maria Mayorga, PhD²; Dejun Su, PhD³; Yan Li, PhD⁴;
Emily Martin, MS¹; Donglan Zhang, PhD⁵

Introduction: Generation 1.5, immigrants who moved to a different country before adulthood, are hypothesized to have unique cognitive and behavioral patterns. We examined the possible differences in cigarette smoking between Asian subpopulations who arrived in the United States at different life stages.

Methods: Using the Asian subsample of the 2015 Tobacco Use Supplement to the Current Population Survey, we tested this Generation 1.5 hypothesis with their smoking behavior. This dataset was chosen because its large sample size allowed for a national-level analysis of the Asian subsamples by sex, while other national datasets might not have adequate sample sizes for analysis of these subpopulations. The outcome variable was defined as whether the survey respondent had ever smoked 100 cigarettes or more, with the key independent variable operationalized as whether the respondent was: 1) born in the United States; 2) entered the United States before 12; 3) entered between 12 and 19; and 4) entered after 19. Logistic regressions were run to examine the associations with covariates including the respondent's age, educational attainment, and household income.

Results: Asian men who entered before 12 were less likely to have ever smoked 100 cigarettes than those who immigrated after 19; for Asian women, three groups (born in the United States, entered before 12, entered between 12 and 19) were more likely to have smoked 100 cigarettes than those who immigrated after 19.

Conclusions: While Asian men who came to the United States before 12 were less at risk for cigarette smoking than those who immigrated in adulthood, the pattern was the opposite among Asian women. Those who spent their childhood in the United

INTRODUCTION

In immigration literature, Generation 1.5 refers to those foreign-born immigrants who entered the receiving country before adulthood.^{1,2} These immigrants were observed to have a unique set of challenges that are different from those who immigrated in adulthood or native-born residents, such as intercultural conflict,³ difficulty in writing in the host country's language,⁴ barriers to mental health services, and identity quest.^{5,6} A qualitative study of 10 Generation 1.5 immigrants reported potential mental health challenges such as encountering racism, lacking a sense of total belonging in either culture, and having negative attitudes toward seeking

help from mental health professionals when in distress.⁷ As untreated mental health challenges are often associated with substance abuse behaviors such as tobacco smoking and binge drinking,⁸ we infer that these Generation 1.5 immigrants could be at elevated risk for substance misuse. It is then important to explore the substance abuse patterns among this unique immigrant population.

This study examined the differences in cigarette smoking between Asian subgroups who arrived in the United States at different life stages. We hypothesize that the Generation 1.5 Asian immigrants are more likely to have established cigarette smoking behaviors (ie, ever smoked at least 100 cigarettes⁹) compared to

States were more likely to smoke than those who came to the United States in adulthood. These patterns might result from the cultural differences between US and Asian countries, and bear policy relevance for the tobacco control efforts among Asian Americans. *Ethn Dis.* 2022;32(2):75-80; doi:10.18865/ed.32.2.75

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¹ Department of Public Health Sciences, Clemson University, Clemson, SC

² Department of Industrial Engineering,

North Carolina State University, Raleigh, NC

³ Department of Health Promotion, Social and Behavioral Health, College of Public Health, University of Nebraska Medical Center, Omaha, NB

⁴ Icahn School of Medicine, Mount Sinai Health System, New York, NY

⁵ New York University Long Island School of Medicine, Mineola, NY

Address correspondence to Donglan Zhang, Division of Health Services Research, New York University Long Island School of Medicine; Donglan.Zhang@nyulangone.org

their counterparts who migrated after adulthood and that this pattern could be more salient among Asian women, because smoking prevalence is lower among women in Asian countries than in the United States.¹⁰⁻¹⁴

METHOD

Ethical Review

This study is a secondary data analysis of publicly downloadable de-identified data and thus meets the criteria of exemption from institutional review of research ethics.

This study examined the differences in cigarette smoking between Asian subgroups who arrived in the United States at different life stages.

Participants/Data Collection

We used the Asian subsample of the May 2015 Tobacco Use Supplement (TUS) to the Current Population Survey (CPS),¹⁵ a nationally representative sample of the US adult population collected through telephone interviews. We conducted the following data cleaning steps with the May 2015 TUS dataset. First, we excluded participants whose smoking status was indeterminate.

Smoking status was “indeterminate” if a participant answered “refused” or “don’t know” to any of the following questions: “Have you ever smoked more than 100 cigarettes in your entire life?”, “Are you currently smoking?”. Next, we excluded proxy respondents as the full information about the target participant (eg, number of cigarettes smoked per day) was not collected via proxy.

Our study population included 1,213 Asian men and 1,405 Asian women. We chose this TUS dataset because it had a sizable Asian subsample among nationally representative datasets that measured adult smoking behavior and its measurement of adult self-reported smoking behavior had been shown as reliable by previous literature.¹⁶ Moreover, the reliability of CPS in providing information about foreign-born populations at the national level has been determined by the Population Division of the United States Census Bureau¹⁷ and thus TUS-CPS has been used reliably by researchers to study the association between immigrant generations and smoking status.¹⁸

Measures

Cigarette smoking behavior was defined as answering “Yes” to the survey question “(Have/Has) (you/name) smoked at least 100 cigarettes in (your/his/her) entire life?” in the adult questionnaire of TUS-CPS. We are aware that this operational definition of “ever cigarette use” could yield smaller prevalence estimate than the commonly used questionnaire item of “Have you ever smoked a cigarette, even one or two puffs.”¹⁸ However, we believe that this questionnaire item

used by TUS-CPS about whether having ever smoked 100 cigarettes or more in lifetime is a better measure of cigarette smoking initiation behavior, since most adolescents who smoked their first whole cigarette did not go on to become a regular smoker¹⁹ and thus one single puff of one cigarette or one whole cigarette in one’s life could hardly be viewed as the behavior of initiating cigarette smoking.

For the key independent variable, we built a categorical variable for age of arrival, whereby the respondents were grouped into four categories: born in the United States, arriving before 12, arriving between 12 and 19, and arriving in adulthood (aged ≥ 19 years). We differentiate those arriving before 12 from those arriving in adolescence due to documented evidence that indicates whether one arrived before adolescence played a role in his/her access to health services,²⁰ which is a social determinant known to influence substance abuse behavior.²¹

Analysis

As the immigration experience could have differential effects in term of smoking behaviors between males and females,²² we chose to stratify our analyses by sex. We used the full study population to run a logistic regression analysis of ever smoking at least 100 cigarettes with the main effects of sex and age of arrival in the United States, as well as the interaction terms between age of arrival and sex. The interaction terms turned out to be very significant, confirming the necessity of stratifying our analyses by sex.

Stratified by sex, two multiple logistic regressions were used to examine the association between the age

arriving at the United States (if they are the Generation 1.5 immigrants) and having ever smoked at least 100 cigarettes, with covariates including age when surveyed (with one year as the measurement unit), educational attainment²³ (with not finishing high school as the reference category), and household income category²⁴ (with household income <\$10,000 as the reference category). The logistic procedure in STATA 12.0 was used for the analysis.²⁵ Sampling weights were adjusted in all analysis.

RESULTS

A total of 1,213 Asian men and 1,405 Asian women were included in our analyses (Table 1); of these, 21.9% of Asian men and 6.6% Asian women reported having smoked at least 100 cigarettes. By age of arrival, 30.3% of Asian men were born in the US, 9.2% arrived before age 12, 10.2% arrived between ages 12 and 17, and 50.3% arrived in adult-

Table 1. Descriptive statistics about the Asian American adult subsample in the 2015 Tobacco Use Supplement (TUS) to the Current Population Survey (CPS)

	Asian Men, N=1213	Asian Women, N=1405
Ever smoked at least 100 cigarettes	21.9%	6.6%
Time in the United States		
Born in the US	30.3%	28.2%
Arrived in the US before 12	9.2%	6.8%
Arrived in the US between 12 and 19	10.2%	8.8%
Arrived in the US beyond 19	50.3%	56.2%
Mean age in years (standard error)	39.3 (.3)	39.8 (.3)
Income		
<\$10,000	5.8%	4.6%
\$10,000-\$19,999	4.3%	4.2%
\$20,000-\$39,999	16.8%	17.7%
\$40,000-\$59,999	13.1%	13.7%
\$60,000 and above	60.0%	59.9%
Educational attainment		
Not graduated from high school	6.8%	7.8%
High school graduation/GED	16.8%	18.2%
Some college/vocational school	19.1%	18.7%
College graduation or above	57.3%	55.3%

hood. For Asian women, these proportions were 28.2%, 6.8%, 8.8% and 56.2%, respectively (Table 1).

Compared with Asian men entering the US after 19, Asian men who entered the United States before 12 were significantly less likely

to have smoked at least 100 cigarettes (OR: .43; 95%CI: .22, .84, Table 2). This protective effect was not evident among US-born Asian men (OR: .79; 95%CI: .59, 1.06) and Asian men who entered the United States between ages 12 and 19

Table 2. Having ever smoked 100 or more cigarettes and age of arrival in the United States among Asians

Variables	Categories	Asian Men, N=1213		Asian Women, N=1405	
		OR	95% CI	OR	95%CI
Age of arrival in US Ref = arriving in US after 19	Born in the US	.79	(.59, 1.06)	3.07 ^c	(1.94, 4.86)
	Arrived before 12	.43	(.22, .84)	3.88 ^b	(1.69, 8.89)
	Arrived between 12-19	1.10	(.70, 1.75)	2.61 ^a	(1.19, 5.74)
Age, in years		1.02 ^c	(1.01, 1.03)	1.02 ^c	(1.01, 1.03)
Income	\$10,000-\$19,999	1.22	(.58, 2.58)	1.63	(.54, 4.92)
	\$20,000-\$39,999	1.16	(.63, 2.12)	.89	(.34, 2.34)
	\$40,000-\$59,999	.98	(.51, 1.88)	1.07	(.40, 2.88)
	≥\$60,000	.93	(.52, 1.67)	.82	(.33, 2.05)
Educational attainment Ref = <high school	High school graduation/GED	1.43	(.87, 2.33)	.94	(.47, 1.88)
	Some college/vocational	1.51	(.91, 2.51)	1.10	(.56, 2.19)
	≥College graduate	.84	(.53, 1.34)	.78	(.39, 1.57)

a. .01<P<.05; b. .001<P<.01; c. P<.001

years (OR: 1.10, 95%CI: .70, 1.75).

For Asian women, all three comparison groups were significantly more likely to have ever smoked at least 100 cigarettes than Asian women who entered the US after 19 (US-born: OR=3.07, 95%CI: 1.94, 4.86); arriving before age 12: OR=3.88, 95%CI: 1.69, 8.89; arriving between age 12-19: OR=2.61, 95%CI:1.19, 5.74). (Table 2)

Also as shown in Table 2, age of the respondent was associated with having ever smoked 100 or more cigarettes and did not differ by sex (OR=1.02, 95% CI:1.01, 1.03). Educational attainment and income were not associated with having ever smoked at least 100 cigarettes.

DISCUSSION

Our study found that the Generation 1.5 pattern was present in smoking behavior among certain Asian American groups with a clear pattern for males vs females. This male/female gap was also reflected in current cigarette smoking prevalence in other Asian countries: 42.1% among men vs 6.2% among women in South Korea²⁶ and 53.8% among men vs 12.6% among women in the Philippines.²⁷ This male/female pattern was very different from that in the United States, where the male smoking prevalence (18.8% in 2014) was substantially lower than these Asian countries while the female smoking prevalence (14.8% in 2014)²⁸ was notably higher than these Asian countries. From the perspective of acculturation and health behavior, male Asian immigrants entering the United

States before 12 spent their adolescence in the United States, a country where males were less likely to smoke than their male counterparts in the Asian countries. The Generation 1.5 pattern of acculturation, in this case, implies a protective effect for Asian men who entered the United States as a child, possibly making them less at risk of having ever smoked cigarettes as compared with Asian men who entered the United States as adults.

Compared with countries such as China, the Philippines, South Korea, and India, US-born women have substantially higher smoking prevalence. As smoking initiation in the United States occurred mostly during adolescence and young adulthood,²⁹ the American social environment where females smoke more than those in Asian countries could have peer influence on Asian female immigrants who arrived in America before adulthood. On the other hand, many of those Asian women who arrived in the United States in their adulthood could have passed the critical stage in their life when most smoking initiation occurs. In other words, the Generation 1.5 pattern here is flipped among the female Asian American population—arriving in the United States before adulthood may increase the risk for cigarette smoking among foreign-born Asian American women, in contrast to a decreased risk for cigarette smoking among foreign-born Asian men.

Bivariate analyses of Asian Americans' smoking behavior in the past have shown that one's educational attainment was negatively associated with having ever smoked.³⁰ In contrast, in our logistic models where

age, age of arriving in the United States and income were adjusted for, the associations between educational attainment and smoking experience were statistically insignificant. While this might sound counter-intuitive given the documented evidence about education's protective effect against tobacco smoking,³¹ it is important to note that demographic protective factors of health outcomes, such as education, might vary between different demographic subgroups in

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terms of significant effectiveness.³² Given this finding, specific academic attention must be given for each racial/ethnic group instead of assuming a universal pattern of education's protective effect on substance use.

It is not uncommon that Asian Americans, with the often misleading label of "the model minority," are erroneously viewed as a homogeneous entity.³³ Many challenges experienced by high-risk Asian subgroups are not receiving sufficient academic, policy and clinical attention. For

example, gastric cancer prevalence is higher among East Asians and Southeast Asians than the general US population³⁴ and coronary heart disease prevalence is higher among South Asians than other minority and non-minority groups.³⁵ In the case of tobacco smoking, a risk factor for coronary heart disease and many types of cancers, smoking cessation and prevention might be particularly needed among Asian women who immigrated before adulthood and Asian men who immigrated after 12. When we discuss smoking behavior among immigrants, it is important to differentiate behavioral patterns among people who immigrated at different life stages, and it is important to understand their acculturation-associated as well as sex-associated risk behavioral patterns.

Study Limitations

Our study was limited in that we did not address the ongoing challenge of e-cigarette use among adolescents and young adults in the United States, nor did we analyze the pattern of other non-cigarette tobacco products such as cigars, little cigars, cigarillos, etc., each with its unique cultural appeal for different sociocultural subgroups (eg, Blacks and Latinos are more likely to use little cigars and cigarillos than non-Hispanic Whites³⁶). Moreover, the Generation 1.5 pattern is not unique to Asian immigrants in the United States,³⁷ and therefore we plan to examine whether this Generation 1.5 pattern is evident among Latinos' substance abuse behavior in our future analyses. Finally, the TUS-CPS survey did not measure the ethnic identity among the Asian Ameri-

cans (Chinese, Korean, etc.), and the absence of identification of Asian subgroups in our model could create bias in estimation since smoking behavior has been observed to vary between Asian American subgroups.³⁸

CONCLUSION

Our study found that while Asian men who came to the United States before 12 were less at risk for cigarette smoking than those who immigrated in adulthood, the pattern was the opposite among Asian women: those who spent their childhood in the United States were more likely to smoke than those who arrived in adulthood. These patterns might result from the cultural differences in cigarette smoking between the United States and the Asian countries (a hypothesis that is yet to be tested with empirical data), and bear policy relevance for tobacco control efforts among Asian Americans, in that anti-smoking campaigns might want to focus more on Asian American girls under 18 and immigrant Asian men who arrived in the United States in adulthood.

CONFLICT OF INTEREST

No conflicts of interest to report.

AUTHOR CONTRIBUTIONS

Research concept and design: Shi, Zhang; Acquisition of data: Shi; Data analysis and interpretation: Shi, Mayorga, Su, Li; Manuscript draft: Mayorga, Su, Li, Martin, Zhang; Statistical expertise: Shi, Mayorga, Su, Li, Zhang; Administrative: Martin; Supervision: Shi

REFERENCES

1. Benesch S. "Generation 1.5" and its discourses of partiality: a critical analysis. *J Lang Identity Educ.* 2008;7(3-4):294-311. <https://doi.org/10.1080/15348450802237954>
2. Bloch J. Abdullah's Blogging: A Generation

- 1.5 student enters the blogosphere. *Lang Learn Technol.* 2007;11:128-141.
3. Arancibia H, Leihy P, Samari D. A Generation 1.5 Palestinian Diaspora child refugee in Chile. *J Loss Trauma.* 2021;26(1):78-93. <https://doi.org/10.1080/15325024.2020.1819020>
4. Doolan SM, Miller D. Generation 1.5 written error patterns: A comparative study. *J Second Lang Writ.* 2012;21(1):1-22. <https://doi.org/10.1016/j.jslw.2011.09.001>
5. Navarro G. *Perspectives from Generation 1.5 Asian Americans of Mental Health and the Quality and Accessibility of Treatment in San Joaquin County.* [Masters Thesis]. Stanislaus State College; 2016. Last accessed January 27, 2022 from <http://hdl.handle.net/10211.3/200838>
6. Remennick L, Prashizky A. Subversive identity and cultural production by the Russian-Israeli Generation 1.5. *Eur J Cult Stud.* 2019;22(5-6):925-941. <https://doi.org/10.1177/1367549418810091>
7. Kim BSK, Brenner BR, Liang CTH, Asay PA. A qualitative study of adaptation experiences of 1.5-generation Asian Americans. *Cultur Divers Ethnic Minor Psychol.* 2003;9(2):156-170. <https://doi.org/10.1037/1099-9809.9.2.156> PMID:12760327
8. Low NCP, Dugas E, O'Loughlin E, et al. Common stressful life events and difficulties are associated with mental health symptoms and substance use in young adolescents. *BMC Psychiatry.* 2012;12(1):116. <https://doi.org/10.1186/1471-244X-12-116> PMID:22900789
9. Choi WS, Pierce JP, Gilpin EA, Farkas AJ, Berry CC. Which adolescent experimenters progress to established smoking in the United States. *Am J Prev Med.* 1997;13(5):385-391. [https://doi.org/10.1016/S0749-3797\(18\)30159-4](https://doi.org/10.1016/S0749-3797(18)30159-4) PMID:9315272
10. Chang Y, Kang H-Y, Lim D, Cho H-J, Khang Y-H. Long-term trends in smoking prevalence and its socioeconomic inequalities in Korea, 1992-2016. *Int J Equity Health.* 2019;18(1):148. <https://doi.org/10.1186/s12939-019-1051-x> PMID:31533732
11. Wang M, Luo X, Xu S, et al. Trends in smoking prevalence and implication for chronic diseases in China: serial national cross-sectional surveys from 2003 to 2013. *Lancet Respir Med.* 2019;7(1):35-45. [https://doi.org/10.1016/S2213-2600\(18\)30432-6](https://doi.org/10.1016/S2213-2600(18)30432-6) PMID:30482646
12. Mishra S, Joseph RA, Gupta PC, et al. Trends in bidi and cigarette smoking in India from 1998 to 2015, by age, gender and education. *BMJ Glob Health.* 2016;1(1):e000005. <https://doi.org/10.1136/bmjgh-2015-000005> PMID:28588906
13. Tabuchi T, Kondo N. Educational inequalities in smoking among Japanese adults aged 25-94 years: nationally repre-

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- sentative sex- and age-specific statistics. *J Epidemiol.* 2017;27(4):186-192. <https://doi.org/10.1016/j.je.2016.05.007> PMID:28142048
14. Sreeramareddy CT, Pradhan PMS, Mir IA, Sin S. Smoking and smokeless tobacco use in nine South and Southeast Asian countries: prevalence estimates and social determinants from Demographic and Health Surveys. *Popul Health Metr.* 2014;12(1):22. <https://doi.org/10.1186/s12963-014-0022-0> PMID:25183954
 15. US Department of Commerce, Census Bureau 2016, National Cancer Institute and Food and Drug Administration co-sponsored Tobacco Use Supplement to the Current Population Survey May 2015. <http://cancer-control.cancer.gov/brp/tcrb/tus-cps/>
 16. Soulakova JN, Hartman AM, Liu B, Willis GB, Augustine S. Reliability of adult self-reported smoking history: data from the tobacco use supplement to the current population survey 2002-2003 cohort. *Nicotine Tob Res.* 2012;14(8):952-960. <https://doi.org/10.1093/ntr/ntr313> PMID:22318688
 17. Schmidley AD, Robinson JG. *How Well Does the Current Population Survey Measure the Foreign-Born Population in the United States?* 1998. US Census Bureau; Working Paper Number POP-WP022. Last accessed January 27, 2022 from <https://www.census.gov/library/working-papers/1998/demo/POP-twps0022.html>
 18. Acevedo-Garcia D, Pan J, Jun H-J, Osypuk TL, Emmons KM. The effect of immigrant generation on smoking. *Soc Sci Med.* 2005;61(6):1223-1242. <https://doi.org/10.1016/j.socscimed.2005.01.027> PMID:15970233
 19. Reidpath DD, Davey TM, Kadirvelu A, Soyiri IN, Allotey P. Does one cigarette make an adolescent smoker, and is it influenced by age and age of smoking initiation? Evidence of association from the U.S. Youth Risk Behavior Surveillance System (2011). *Prev Med.* 2014;59:37-41. <https://doi.org/10.1016/j.ypmed.2013.11.011> PMID:24270054
 20. Kao DT; Dennis T. Kao. Generational cohorts, age at arrival, and access to health services among Asian and Latino immigrant adults. *J Health Care Poor Underserved.* 2009;20(2):395-414. <https://doi.org/10.1353/hpu.0.0144> PMID:19395837
 21. Saloner B, Akosa Antwi Y, Maclean JC, Cook B. Access to health insurance and utilization of substance use disorder treatment: evidence from the Affordable Care Act dependent coverage provision. *Health Econ.* 2018;27(1):50-75. <https://doi.org/10.1002/hec.3482> PMID:28127822
 22. Lorenzo-Blanco EI, Unger JB, Ritt-Olson A, Soto D, Baezconde-Garbanati L. Acculturation, gender, depression, and cigarette smoking among U.S. Hispanic youth: the mediating role of perceived discrimination. *J Youth Adolesc.* 2011;40(11):1519-1533. <https://doi.org/10.1007/s10964-011-9633-y> PMID:21293915
 23. Kandel DB, Griesler PC, Schaffran C. Educational attainment and smoking among women: risk factors and consequences for offspring. *Drug Alcohol Depend.* 2009;104(suppl 1):S24-S33. <https://doi.org/10.1016/j.drugalcdep.2008.12.005> PMID:19179020
 24. Lawrence D, Fagan P, Backinger CL, Gibson JT, Hartman A. Cigarette smoking patterns among young adults aged 18-24 years in the United States. *Nicotine Tob Res.* 2007;9(6):687-697. <https://doi.org/10.1080/14622200701365319> PMID:17558826
 25. Liu X. *Applied Ordinal Logistic Regression using Stata: From Single-Level to Multilevel Modeling.* Thousand Oaks, CA: Sage Publications; 2015.
 26. Choi S, Kim Y, Park S, Lee J, Oh K. Trends in cigarette smoking among adolescents and adults in South Korea. *Epidemiol Health.* 2014;36:e2014023. <https://doi.org/10.4178/epih/e2014023> PMID:25358464
 27. Dans A, Fernandez L, Fajutrao L, Amarillo M, Hernandez J, Tangarorang E. The economic impact of smoking in the Philippines. *Philipp J Intern Med.* 1999;7:261-268.
 28. Jamal A, Homa DM, O'Connor E, et al. Current cigarette smoking among adults - United States, 2005-2014. *MMWR Morb Mortal Wkly Rep.* 2015;64(44):1233-1240. <https://doi.org/10.15585/mmwr.mm6444a2> PMID:26562061
 29. Lanza ST, Vasilenko SA. New methods shed light on age of onset as a risk factor for nicotine dependence. *Addict Behav.* 2015;50:161-164. <https://doi.org/10.1016/j.addbeh.2015.06.024> PMID:26151579
 30. Chae DH, Gavin AR, Takeuchi DT. Smoking prevalence among Asian Americans: findings from the National Latino and Asian American Study (NLAAS). *Public Health Rep.* 2006;121(6):755-763. <https://doi.org/10.1177/003335490612100616> PMID:17278411
 31. Grimard F, Parent D. Education and smoking: were Vietnam war draft avoiders also more likely to avoid smoking? *J Health Econ.* 2007;26(5):896-926. <https://doi.org/10.1016/j.jhealeco.2007.03.004> PMID:17482299
 32. Gould JB, Madan A, Qin C, Chavez G. Perinatal outcomes in two dissimilar immigrant populations in the United States: a dual epidemiologic paradox. *Pediatrics.* 2003;111(Pt 1):e676-e682. <https://doi.org/10.1542/peds.111.6.e676> PMID:12777585
 33. Kiang L, Huynh VW, Cheah CSL, Wang Y, Yoshikawa H. Moving beyond the model minority. *Asian Am J Psychol.* 2017;8(1):1-6. <https://doi.org/10.1037/aap0000070>
 34. Shah SC, Canakis A, Peek RM Jr, Saumoy M. Endoscopy for gastric cancer screening is cost effective for Asian Americans in the United States. *Clin Gastroenterol Hepatol.* 2020;18(13):3026-3039. <https://doi.org/10.1016/j.cgh.2020.07.031> PMID:32707341
 35. Pursnani S, Merchant M. South Asian ethnicity as a risk factor for coronary heart disease. *Atherosclerosis.* 2020;315:126-130. <https://doi.org/10.1016/j.atherosclerosis.2020.10.007> PMID:33317714
 36. Sterling KL, Fryer CS, Pagano I, Fagan P. Little cigars and cigarillos use among young adult cigarette smokers in the United States: understanding risk of concomitant use subtypes. *Nicotine Tob Res.* 2016;18(12):2234-2242. <https://doi.org/10.1093/ntr/ntw170> PMID:27613889
 37. Allensworth EM. Earnings mobility of first and "1.5" generation Mexican-origin women and men: a comparison with U.S.-born Mexican-Americans and non-Hispanic whites. *Int Migr Rev.* 1997;31(2):386-410. PMID:12292876
 38. Martell BN, Garrett BE, Caraballo RS. Disparities in adult cigarette smoking - United States, 2002-2005 and 2010-2013. *MMWR Morb Mortal Wkly Rep.* 2016;65(30):753-758. <https://doi.org/10.15585/mmwr.mm6530a1> PMID:27491017