Addressing gastric cancer risks via general infection rate of Helicobacter pylori in an urban Chinese population

**Introduction**

- Despite a lower incidence rate in the United States, gastric cancer (GC) affects a disproportionate number of patients from high-risk populations such as those of East Asian descent.
- The prevalence of Helicobacter pylori, a class I carcinogen highly associated with gastric cancer, is also increased in certain ethnic groups (Figure 2). 1-3.
- With a growing Asian population in urban areas, there is an increasing need to address this health disparity in primary GC prevention.

**Hypotheses**

1. *H. pylori* prevalence in Chicago’s Chinese population is significantly higher than that of Chicago’s general population. 1-3.
2. *H. pylori* prevalence in Chicago’s Chinese population is consistent with previously reported prevalence in China (63.4%). 4.

**Methods**

<table>
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<tr>
<th>Midwest Asian Health Association</th>
<th>Rush University Medical Center</th>
<th>Bismuth quadruple therapy or concomitant therapy</th>
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<tbody>
<tr>
<td><strong>n = 288</strong> (44.10% male, 55.90% female)</td>
<td><strong>n = 71</strong> (42.25% male, 57.75% female)</td>
<td>POS No follow-up Management by PCP or GI</td>
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**Results**

- MAHA (51.74%) had a higher seropositivity than RUMC (38.03%) (Figure 3).
- In the MAHA population, highest seropositivity was seen in ages 50-59 (55.00%) and household sizes 5 or greater (55.56%).
- **Similarities between MAHA & RUMC included (Figure 4):**
  1. Gender ("Methods")
  2. Age distribution
  3. Household size distribution (Figure 4).
- **Differences between MAHA & RUMC included (Figure 5a-b):**
  1. MAHA had more East Asians than RUMC (100% vs. 2.82%).
  2. MAHA had more 1st gen. immigrants than RUMC (97.51% vs. 26.76%).
  3. MAHA had a lower median household income range ($0–$15k vs. $40k–$49k).
  4. MAHA had a lower median education level (High School vs. Bachelors).

**Conclusion**

1) Within an urban setting in the United States, *H. Pylori* prevalence in the Chinese population (51.74%) is more comparable to the reported prevalence in China than to that of the general population (38.03%). 4.
2) When treating Chinese or East Asian patients in an urban setting, healthcare providers should consider screening for *H. pylori* infection.
3) As an urban Chinese population in the US is more representative of an overseas population, management guidelines used in Asia may be more applicable.
4) Further research on response to therapy and risk of gastric cancer/ premalignant lesions is needed in this special population.

**References**