Background:
- Both cancer incidence and mortality have dropped since the early 1990s, but disparities persist between racial, ethnic, and socioeconomic groups.
- One potential driver is the lack of appropriate representation in clinical trials, including dose-finding studies.
- There are individual level barriers and systemic barriers that hinder patient participation in clinical trials including patient mistrust, health literacy, added cost, clinician perceptions, language barriers, and restrictive clinical trial designs.
- We implemented a set of initiatives including multilingual educational videos, outreach to other health systems, a Spanish speaking bicultural clinic, and regular reviews of patient accrual and goals.
- Objective: Compare Phase I clinical trial demographics before and after the implementation of our interventions.

Methods:
- Retrospective review of patients enrolled in 2018-2019 (cohort 1, pre-intervention) and 2022-2023 (cohort 2, post-intervention).
- Socioeconomic disadvantage status was estimated using the area deprivation index (ADI) tool.
- Progression-free survival (PFS) and overall survival (OS) were calculated using the Kaplan-Meier method.

Results (Demographics):
- Increase in language preference other than English from 1.91% to 6.58% (p = 0.028) and in translated consents from 1.44% to 5.92% (p = 0.033).
- No statistically significant difference in race, ethnicity, insurance, or tumor type between Cohorts 1 and 2.

<table>
<thead>
<tr>
<th>Variable and Categories</th>
<th>Cohort 1 (%)</th>
<th>Cohort 2 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation use</td>
<td>1.44%</td>
<td>9.58%</td>
</tr>
<tr>
<td>Preferred Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>94.08%</td>
<td>94.08%</td>
</tr>
<tr>
<td>Other</td>
<td>5.92%</td>
<td>5.92%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>13.89%</td>
<td>10.53%</td>
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<tr>
<td>Other</td>
<td>86.11%</td>
<td>89.47%</td>
</tr>
<tr>
<td>Health Insurance Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare</td>
<td>85.42%</td>
<td>76.50%</td>
</tr>
<tr>
<td>Private Insurance</td>
<td>13.71%</td>
<td>23.47%</td>
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<tr>
<td>Medicaid</td>
<td>18.61%</td>
<td>15.97%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>1.20%</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

Discussion:
Our set of interventions led to an increase in accrual of non-English speaking patients and translated consent use. Higher ADI scores, indicating less affluent neighborhoods, correlated with worse outcomes in patients with colon cancer.

Implications:
1. Socioeconomically-disadvantaged patients continue to have worse treatment outcomes on phase I clinical trials.
2. Targeted interventions can successfully improve accrual of populations historically underrepresented in research.

Limitations:
- Single institution study.
- Confounders: wide range of tumor types, clinical trial drugs with varying efficacy as well as social factors not readily available in medical record systems.

References:

Disclosures: The authors have no conflicts of interest to disclose.