INTRODUCTION
3DVUS offers promise for cardiovascular risk stratification in general population. However, its reproducibility in early stages of atherosclerosis has not been well established.

OBJECTIVES
To determine 3DVUS agreement and reproducibility for plaque detection and focal atherosclerosis burden quantification in carotid and ileofemoral territories.

METHODS
A total of 772 vascular territories were studied in 193 adults recruited in the FAMILIA study from 15 Head Start preschools in Harlem (New York).
- Vascular Plaque Quantification tool (QLAB)
- Two independent observers
- Kappa coefficients to assess the interobserver and intraobserver agreement for plaque detection.
- Intraclass correlation coefficient (ICC) and Bland-Altman plots to assess the interobserver and intraobserver reproducibility for the analyses of focal atherosclerosis disease burden (plaque volume quantification)
  - Plaque-positive participants (n = 47)

RESULTS
- Mean age was 37.8 ± 11.4 years, 85% female, 64% Hispanic/Latino, 26% Non-Hispanic Black.
- Overall prevalence of subclinical atherosclerosis was 8.8%.

<table>
<thead>
<tr>
<th></th>
<th>All territories</th>
<th>Carotid</th>
<th>Femoral</th>
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<tbody>
<tr>
<td>Plaque detection</td>
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<tr>
<td>Interobserver Kappa</td>
<td>0.89 (0.81-0.98)</td>
<td>0.92 (0.84-1.00)</td>
<td>0.82 (0.62-1.00)</td>
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<tr>
<td>Intraobserver Kappa</td>
<td>0.93 (0.86-1.00)</td>
<td>0.90 (0.80-1.00)</td>
<td>1.00 (1.00-1.00)</td>
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<tr>
<td>Plaque volume quantification</td>
<td>0.89 (0.80-0.94)</td>
<td>0.88 (0.79-0.93)</td>
<td>0.85 (0.73-0.92)</td>
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<tr>
<td>Intraobserver ICC</td>
<td>0.88 (0.78-0.93)</td>
<td>0.85 (0.73-0.91)</td>
<td>0.87 (0.77-0.93)</td>
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Interobserver and intraobserver agreement was good for the detection of plaque and for focal disease burden quantification.

CONCLUSIONS
- 3DVUS shows good interobserver and intraobserver agreement, and good reproducibility, for the detection and quantification of focal disease in early stages of atherosclerosis.
- 3DVUS could be used as a tool for subclinical atherosclerosis screening and for promoting healthy habits in the general population.

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