Total Active Enrollment Trend
Enrollment by Income (% of FPL)

- 0-135%  
  - 2,841  
  - 80%
- 135%-165%  
  - 353  
  - 10%
- 165%-200%  
  - 356  
  - 10%
- Total  
  - 3,550  
  - 100%
CI Enrollee Demographics

Active Enrollees by Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-24</td>
<td>0%</td>
</tr>
<tr>
<td>25-29</td>
<td>5%</td>
</tr>
<tr>
<td>30-34</td>
<td>10%</td>
</tr>
<tr>
<td>35-39</td>
<td>15%</td>
</tr>
<tr>
<td>40-44</td>
<td>20%</td>
</tr>
<tr>
<td>45-49</td>
<td>25%</td>
</tr>
<tr>
<td>50-54</td>
<td>30%</td>
</tr>
<tr>
<td>55-59</td>
<td>25%</td>
</tr>
<tr>
<td>60-64</td>
<td>20%</td>
</tr>
</tbody>
</table>
CI Enrollment and Expenditures Trend

CI Enrollment and Expenditures Trend
(CI Program Year 2 - TD)

- September-08
- October-08
- November-08
- December-08
- January-09
- February-09
- March-09
- April-09

$-
$1,000,000
$2,000,000
$3,000,000
$4,000,000
$5,000,000
$6,000,000
$7,000,000
$8,000,000

YTD Expenditures
Active Enrollees
Project Dulce CI - HTN Only Patients
Patient Indicators: Pre and Post Visit Results

Percentage of Patients

- BP < 140/90
  - County Goal: 85.2%
  - Pre (Initial) N = 182: 70%
  - Post (Follow-up) N = 94: 72.5%

- LDL < 130
  - County Goal: 92.6%
  - Pre (Initial) N = 182: 70%
  - Post (Follow-up) N = 94: 73.1%
Project Dulce CI - DM and HTN Patients
Patient Indicators: Pre and Post Visit Results

- BP < 130/80: 70%, 66.7%
- HbA1c < 9.0%: 70%, 66.7%
- LDL < 130: 70%, 76.0%

Legend:
- County Goal
- Pre (Initial) N = 484
- Post (Follow-up) N = 408
Average Cost per User Comparison

* Pre-CI/CMS average cost per user based on 1,641 CMS patients that enrolled CI.
* HCCI average cost per user based on Program Year 2 to date (Q1-Q3).
Telemedicine Retinal Screening Utilizing a Mobile Medical Unit with a Trained Technician Accurately Detects Disease in High Risk Ethnically Diverse Populations: Results of the Project Dulce™ Retinal Screening Study

**Background:** Diabetic retinopathy (DR) is a recognized complication of DM. As part of the Project Dulce diabetes management program, we tested a method of county-wide, telemedicine retinal screening (RS) for underserved, diverse ethnic, high risk populations of San Diego County to determine if this may be an efficient and potentially cost-effective method to detect and treat DR.

**Methods:** Over 18 months, 1229 patients with type 1 & 2 DM, ages 16-88, from 15 community health clinics (CHC) with poor access to RS were enrolled. A trained retinal imaging technician, travelling to clinics monthly with a mobile medical unit (MMU), captured retinal images, determined if significant DR was present using EyePacs imaging software, and provided immediate referral if DR was present. All images were also read by a retinal specialist.

**Results:** The cohort consisted of 85% Latino, 9% Caucasian and 6% other, 64% female, 88% with T2 DM, 5% T1 and 7% unknown, mean age 51.3±11.1 and mean years of DM diagnosis 7.3±6.6. 91% of images were taken w/o dilation. Most patients (87.2%) were found to have no/mild DR, 5.3% had moderate DR, 6.1% had severe non-proliferative DR and 1.4% severe proliferative DR. Severe DR was present more often in males, older age and those requiring dilation (p< 0.0001 for all). High sensitivity (0.87) and specificity (0.96) was present between technician and retinal specialist readings, with a PPV of 0.80 and NPV of 0.98 and overall accuracy of 92%. All patients’ reports were sent to the CHC and all patients with significant DR were referred for follow-up. Uninsured patients received free f/u and laser treatment when required by the retinal specialist.

**Conclusion:** This Project Dulce™ Retinal Screening Study, using a comprehensive telemedicine program, demonstrates that accurate detection of DR and appropriate referral is feasible in diabetic patients without access to such clinical care. If validated in other communities, this method may provide a unique model for a cost effective means of evaluating large high risk populations.
Telemedicine Retinal Screening Utilizing a Mobile Medical Unit with a Trained Technician Accurately Detects Disease in High Risk Ethnically Diverse Populations: Results of the Project Dulce™ Retinal Screening Study

Athena Philis-Tsimikas¹, MD, George Hayes¹, James A. Koziol², PhD, Chris Walker¹, Paul Tornambe³, MD
¹Scripps Whittier Diabetes Institute, ²Scripps Clinical Services, ³Retina Consultants San Diego

INTRODUCTION

1229 patients with type 1 & 2 DM, ages 16-88, from 15 community health clinics

RESULTS

- 85% Latino, 9% Caucasian and 6% other, 64% female, 88% with T2 DM, 5% T1 and 7% unknown, mean age 51.3±11.1 and mean years of DM diagnosis 7.3±6.6
- 87.2%-no/mildDR, 5.3%-moderateDR, 6.1%-severenon-proliferativeDRand 1.4%-severeproliferative DR
- High sensitivity (0.87) and specificity (0.96) was present between technician and retinal specialist readings
  - PPV-0.80 and NPV-0.98 and overall accuracy of 92%
- Uninsured patients received free f/u and laser treatment when required

CONCLUSIONS

This Project Dulce™ Retinal Screening Study, using a comprehensive telemedicine program, demonstrates that accurate detection of DR and appropriate referral is feasible in diabetic patients without access to such clinical care