DonateWell at USC
Pilot Program

Susan Kim, MS, RDN, CCTD
Program Manager
OBJECTIVES:

• The need for a donor wellness program at USC
• Nutrition & lifestyle–related donor risks
• DonateWell Program Overview
• Pilot Results
<table>
<thead>
<tr>
<th>Year</th>
<th>LDKT</th>
<th>LDLT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>35 (5 peds)</td>
<td>25 (6 peds)</td>
</tr>
<tr>
<td>2021</td>
<td>41 (2 peds)</td>
<td>36 (10 peds)</td>
</tr>
<tr>
<td>2022</td>
<td>41 (3 peds)</td>
<td>34 (10 peds)</td>
</tr>
</tbody>
</table>
Keck Medicine of USC is located in the Boyle Heights area of East Los Angeles.

70% of the medical center’s patients are from LA County.
EAST LOS ANGELES: DEMOGRAPHICS

• 96.2% Hispanic
• 50.5% Male/ 49.5% Female
• 10.6% 65 years or older
• 10.1% has a college degree
• 17.9% poverty rate
• LA County 16.6%

Photo credit: Alicia Quan
2021/2022 KECK HOSPITAL COMMUNITY NEEDS ASSESSMENT REPORT

SIGNIFICANT HEALTH NEEDS IDENTIFIED

• Housing and Homelessness
• Mental Health
• Preventative Practices
• **Chronic Diseases**
• Access to Healthcare
• Sexually Transmitted Infections
• Cancer
• **Overweight and Obesity**
OBESITY IN THE U.S.

- 42.4% in 2017–2018
- 30.5% in 1999–2000
- Non–Hispanic Black adults (49.6%)
- Hispanic adults (44.8%)
- Non–Hispanic White adults (42.2%)
- Men and women with college degrees have lower obesity prevalence compared with those with less education

https://www.cdc.gov/obesity/data/adult.html
KIDNEY DONOR ACCEPTANCE RATE TRENDS BY BMI GROUP


Living Donor Transplant Program
USC Transplant Institute
NUTRITION-RELATED DONOR RISKS AT USC

- Diabetes/Pre-diabetes
- Hypertension
- Hepatic Steatosis
- Metabolic Syndrome
- Obesity

Photo credit: Pavel Danilyuk
2020 USC KIDNEY DONOR APPLICANT PROFILE

• BMI ranged from 17.7–48.8
  ◦ BMI >30: 54%
  ◦ BMI >35: 16%
  ◦ BMI >40: 5%

• Age range: 18 to 75 years old
  ◦ 56% are 18 to 39 years old

• Hispanic: 40%
DONATEWELL PILOT PROGRAM
KIDNEY DONOR EVALUATIONS

2022

• Kidney donors evaluated – ~180 (2021)
• Kidney donors declined – 131 (72.7%)
• Kidney donors declined/deferred due to HTN/Pre-DM/DM/BMI – 27 (20.6%)
• # of kidney donors enrolled in DWP – 6 (22%)
• # of kidney donors optimized & donated – 5 (90%)
PROGRAM OBJECTIVES:

• Provide an **opportunity to an alternate pathway** to donation for unaccepted donors
• 2**nd** screening process to **identify motivated & possible donors**
• Provide a **quick transition for health optimization** to help more donors to meet criteria
• **Easy access** to tools and resources
• Integrate **health & wellness for all donors** through **expanded nutrition education and resources**
DONATEWELL PROGRAM OVERVIEW

- Baseline personalized nutrition plan
  - Nutrition assessment
  - Nutrition education
- Wellness program for deferred or declined donors
  - 8–12 week nutrition plan
  - Lifestyle Redesign®
  - Fitness Support*

Photo credit: Antonina Vlasova/Shutterstock.com
NUTRITION ASSESSMENT & EDUCATION – UPDATED

• Nutrition Assessment
  ◦ Dietary intake
  ◦ Nutrition knowledge & skills
  ◦ Health tools & resources

• Nutrition Education
  ◦ Pre- and post-donation nutrition needs
  ◦ Mediterranean diet
  ◦ Personalized meal plans
  ◦ Long-term health maintenance
    ◦ Managing a healthy weight
    ◦ Healthy dietary patterns
    ◦ Regular exercise
NUTRITION ASSESSMENT – UPDATED

MEDICAL HISTORY
• Diabetes/Pre-diabetes
• High blood pressure
• Fatty liver
• Hyperlipidemia
• Depression

SOCIAL HISTORY
• Level of education
• Occupation
• Schedule
• Current nutrition knowledge
• Meal preparation skills
• Access to healthy food
• Support
NUTRITION ASSESSMENT – UPDATED

Anthropometrics
- BMI
- Body composition
- Waist circumference

Nutrition–related labs
- CMP
- Lipid panel
- HbA1c

Liver fat quantification
- MRI

Photo credit: Pexels/Creative Commons
PERSONALIZED NUTRITION PLAN

• Kcal/PRO needs
• Meal plans
  • Healthy recipes
  • Intake tracking
• Fasting-mimicking diet
  • Supplemental intervention
• Other resources
  • Group education classes
  • Access to healthy food

Photo credit: Alexandra Golovac
PERSONALIZED MEAL PLAN & NUTRITION APP

• Curate meal plans according to:
  • Health status/needs
  • Food preferences
  • Cooking level
  • 6000+ RD approved recipes
  • Create grocery lists
  • Purchase groceries online
  • Track dietary intake
  • Access for up to 2 years after donation
FASTING MIMICKING DIET

A 5-day structured diet

- Day 1: ~1100 calories
- Days 2 to 5: ~700–800 calories

Photo credit: L-Nutra
LIFESTYLE REDESIGN

Lifestyle Redesign® is the process of guiding patients in behavior change to incorporate health promoting habits and routines in daily life.

USC OTs help implement sustainable lifestyle changes to improve health and quality of life.
- Time management
- Stress management
- Sleep routines
USC APPROVED FITNESS

Focusing on the application of exercise to prevent chronic diseases and improve the cardiovascular system.

*Create a personalized exercise plan to optimize functional movement and body strength.
DONATEWELL PILOT PROGRAM
RESULTS
Oct 2021 – Present

• Kidney donors enrolled – 9
• Kidney donors optimized – 8
• Kidney donors post-donation – 6
• Kidney donors to be scheduled for surgery – 2
SUMMARY:

• USC receives **1000+ referrals from potential donors** every year
• Approximately **20–30% are declined** due to morbid obesity, high blood pressure, diabetes, hepatic steatosis, etc.
• **Engage this subset of potential donors and bring them to acceptable health levels** to be able to achieve their intention to donate
• **Increase the pool of acceptable donors** and help bridge the gap for health disparities in living donation
## VARIABLE COSTS (Year 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>InBody Analyzer</td>
<td>$20,500</td>
</tr>
<tr>
<td>Meal Planning Software</td>
<td>$5,000</td>
</tr>
<tr>
<td>Fasting Mimicking Diet</td>
<td>$5,500</td>
</tr>
<tr>
<td>Testing</td>
<td>$3,044</td>
</tr>
<tr>
<td>Clinic</td>
<td>$1,821</td>
</tr>
<tr>
<td>OT</td>
<td>$2,700</td>
</tr>
<tr>
<td>Other</td>
<td>$1,156</td>
</tr>
<tr>
<td><strong>TOTAL VARIABLE COSTS</strong></td>
<td><strong>$39,721</strong></td>
</tr>
</tbody>
</table>
Thank you!
Questions?

Email: Susan.Kim2@med.usc.edu
Phone: (323) 442-5908