

The Kidney Disease Screening and Awareness Program (KDSAP):

Transforming Community Outreach and
Inspiring Interest in Nephrology

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Disclosures

- Founder of Kidney Disease Screening and Awareness Program (KDSAP)
- Women In Nephrology (WIN)
 - Senior Advisor
- Coalition of Asian American Transforming Opportunities in Nephrology (CATION+)
 - Member of Advisory board
- Medical Advisor:
 - National Kidney Foundation (NKF)
 - Past IgAN Foundation
- Advisor/Consultant:
 - Co-founder, Cal-X Stars Business Accelerator Inc.
 - Instant NanoSensor, Co.Ltd.
 - CorrGene Biotechnology Co., Ltd
 - KlothoBios LTP
- International Society of Nephrology (ISN):
 - Chair, World Kidney Day Joint Steering Committee (ISN & IFKF-WKA (International Federal Kidney Foundation-World Kidney Alliance))
 - Member, World Kidney Day Steering Committee, representing North America and Caribbean
 - Member of International Society of Nephrology (ISN) Board representing North America and Caribbean
 - Past Inaugural Editor-in-Chief, ISN Academy
 - Past Member, Education Working Group (EWG)

2025 is a very good year for...

- The field of kidney
- The “World Kidney Day” Joint Steering Committee
- The KDSAP

2025 is a very good year for...

- *On May 23, 2025,*
 - *W.H.O. adopts global resolution making kidney health as **global priority**- the first ever for kidney!*
 - *W.H.O. officially makes “World Kidney Day” the UN “Global Public Health Day”!*

2025 is a very good year for...

- On chronic Kidney Disease W.H.O. highlights four key areas:
 - *Promote **global awareness and education** on CKD:*
 - *Increase public and professional awareness of CKD risk factors*
 - *Preventive actions through campaigns and policy initiatives*

KDSAP has been doing since 2008!!!

How did I start the KDSAP?

Creating a community outreach program

- In 1999, I joined MGH-BWH Nephrology program, Harvard Medical School, I received phone call almost every night from Chinese –speaking individual asking for medical advices
- According to year 2000 census, there were more than 200,000 Asians living in the Greater Boston Metropolitan area, including 174,000 Chinese
- Many are either **recent immigrants or first generation immigrants** from China or other parts of Asia, who **do not speak English**
- The number of Asian with CKD was estimated to be ~ 6,000-8,000 (According to data available for prevalence of DM, HTN and age 65 yo and older) (Kaiser Health in Ca & South Cove Community Health Center)
- At the time, no dedicated kidney clinic existed in the Boston Area for this unique population

How did I start the KDSAP?

Creating a community outreach program

- Factors preventing Asian population to seek medical care:
 - ✓ Lack of health insurance
 - ✓ Language barrier



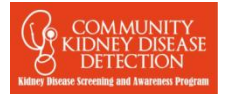
The barriers are found beyond Asian populations





Serving the underserved, meet them where they are



Kidney Disease Screening and Awareness Program (KDSAP)



Kidney Disease Screening and Awareness Program (KDSAP)

- Created in 2008 by Dr. Li-Li Hsiao at Brigham & Women's Hospital, Harvard Medical School (www.kdsap.org)
- Target volunteers are **college students** 
- **Student-run** organization 
- First chapter registered at Harvard college

KDSAP

Student Career Development: Cultivate interest in Nephrology

**COMMUNITY
KIDNEY DISEASE
DETECTION**

Community Outreach:

Community Kidney Disease Detection Program (CKDD)

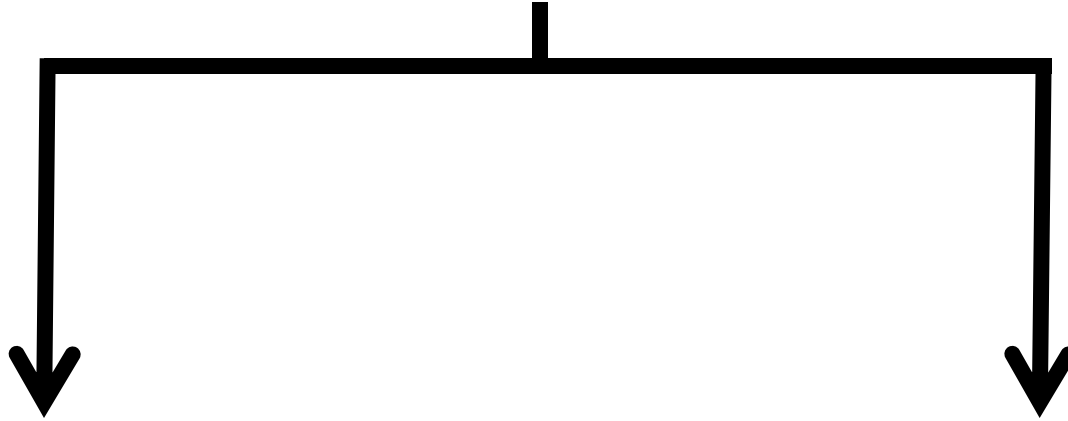
- **Health Screenings**
- **Health Education**

In Campus Activities:

- **Leadership**
- **Mentorship and Career Exposure**
 - **Seminar Series**
 - **Discussion Panels**
 - **Clinical Shadowing**
 - **Hierarchical Mentoring**

KDSAP

Student Career Development: Cultivate interest in Nephrology



Community Outreach:

**Community Kidney
Disease Detection
Program (CKDD)**

- **Health Screenings**
- **Health Education**

KDSAP Community outreach Branch

- To “serve” the community
 - Needs assessment
- “Mobility”
 - The CKDD enters the community and meets participants where they are
- “Provision”
 - Provide *free* kidney health screening for early detection of CKD risk factors
- “Raising awareness”
 - To increase community awareness of CKD by providing education of the condition using specific dialects for designated communities;
- “Partnership”
 - by working closely with community leaders and local physicians.

Free Community Kidney Health Screening



1. Registration



2. Questionnaire



3. Health Education



5. Blood Pressure



4. BMI + Waist Circ.



6. Urinalysis



7. Blood Glucose



8. Consultation

Needs Assessment: *Be Educated by the community*



Chinatown Autumn Festival, Boston, MA.
August 14, 2009



Chinese Elder Home



Harvard Medical School volunteer measures blood pressure of a community member at Lexington Chinese School screening event. *November 2008 Lexington, MA*



KDSAP member records body weight of a senior citizen at Framingham Senior Apartment screening event. *December 2007 Framingham, MA*



KDSAP volunteer translates medical history questionnaire to community member at registration of Framingham Senior Apartment screening event. *December 2007 Framingham, MA*



KDSAP members check over physical measurements at Framingham Senior Apartment screening event. *December 2007 Framingham, MA*



KEEP staff trains volunteers on how to use the urine analysis machines at Framingham Senior Apartment screening event. *December 2007 Framingham, MA*



Community members and volunteers enjoy delicious home recipes at potluck after screening at Framingham Senior Apartment screening event. *December 2007 Framingham, MA*

KDSAP in Chinatown Boston



CCBA
90 Tyler Street
October 3, 2009

Korean Church



Lecture on Kidney Disease prevention and awareness



Free kidney health screening

African-American Community



Kidney Health Screening in the African-American Community in YMCA, Roxbury, MA.

Homeless Shelter



Harvard KDSAP members serving people in homeless shelter, Worcester MA

Lectures on Kidney Disease Prevention and Awareness



Chinese Church



Cultural Center



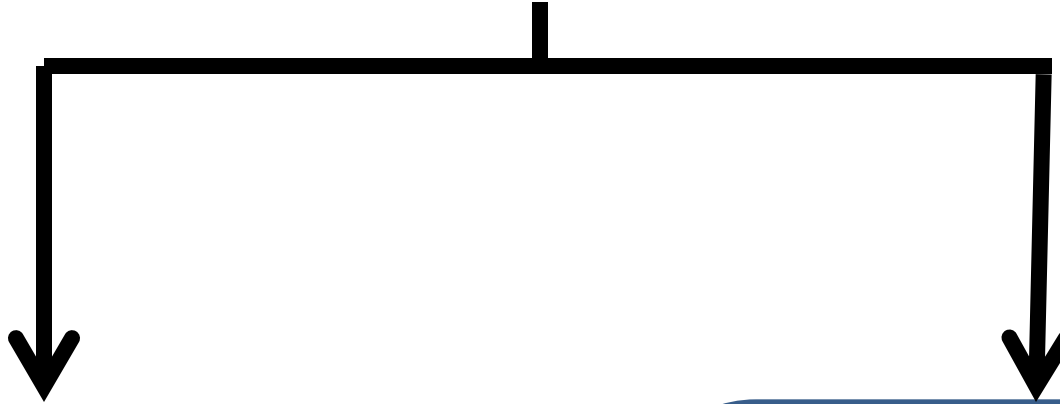
Restaurant Workers



Elder weekly meeting

KDSAP

Student Career Development: Cultivate interest in Nephrology



In Campus Activities:

- **Leadership**
- **Mentorship and Career Exposure**
 - **Seminar Series**
 - **Discussion Panels**
 - **Clinical Shadowing**
 - **Hierarchical Mentoring**

KDSAP In Campus Activities: Student Career Development

- **“Meet the Professor/Doctor” colloquium**
 - Allow students to meet nephrologists over informal settings
- **“Meet the Patient” speaker series**
 - Students can meet patients face-to-face and learn about their kidney diseases and about the doctor-patient relationship
- **Universal Precaution and Professionalism (UPP) Training**
 - This is a mandatory session, which train volunteers to exercise professionalism
- **Blood Pressure Training Workshops**
 - Students can learn how to take accurate BP



Student Career Development: Hierarchical Mentorship

The unique feature of KDSAP:

- It provides the scaffold for hierarchical mentoring between nephrologists, medical students, undergraduates, and high school students.

:



Medical student teaching college student on urinalysis.



A student taking blood pressure for participants at one of the Boston Chinatown festivals.

Kidney Disease Screening and Awareness Program (KDSAP)

Chapters: 30 chapters nationwide and going.....

- Harvard College (MA)
- Rutgers University (NJ)
- University of Pittsburgh (PA)
- Amherst College (MA)
- University of California, Berkeley (CA)
- Boston University (MA)
- University of Connecticut (CT)
- University of Michigan (MI)
- Johns Hopkins University (MD)
- Cornell University (NY)
- University of Pennsylvania (PA)
- University of Southern California (CA)
- Emory University (GA)
- Augustana University (SD)
- Brown University (RI)
- University of Alabama (AL)
- University of Oklahoma (OK)
- University of Virginia (VA)
- University of California, LA (UCLA) (CA)
- University of Minnesota, Twin Cities (MN)

- Princeton University
- University of Maryland College Park (UMCP) (MD)
- Virginia Tech (VA)
- Tufts University (MA)
- Taipei Medical University (Taipei, Taiwan)
- Mackay Medical College (Taipei, Taiwan)
- Purdue University (IN)
- UT Dallas (TX)
- Carnegie Mellon University (PA)
- Dartmouth University (NH)

Approved by school, Await for KDSAP induction:

- University of North Carolina (NC)
- Massachusetts Institute of Technology (MA)
- Georgia Tech (GA)
- Columbia University (NY)

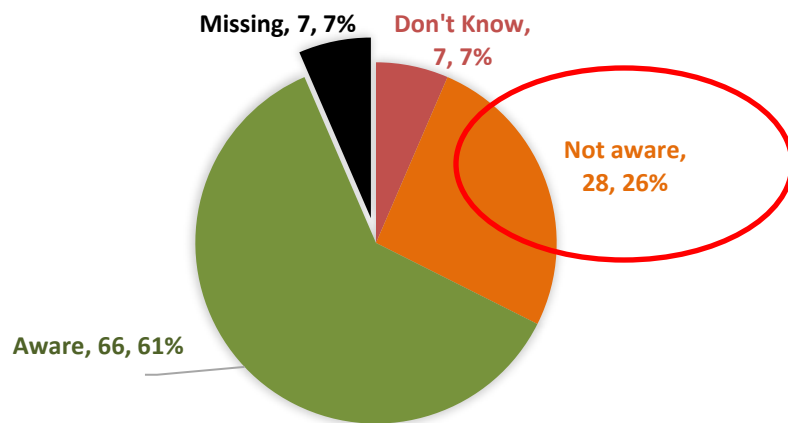
In Progress:

- U Mass (MA)
- Stanford University (CA)
- Duke University (NC)

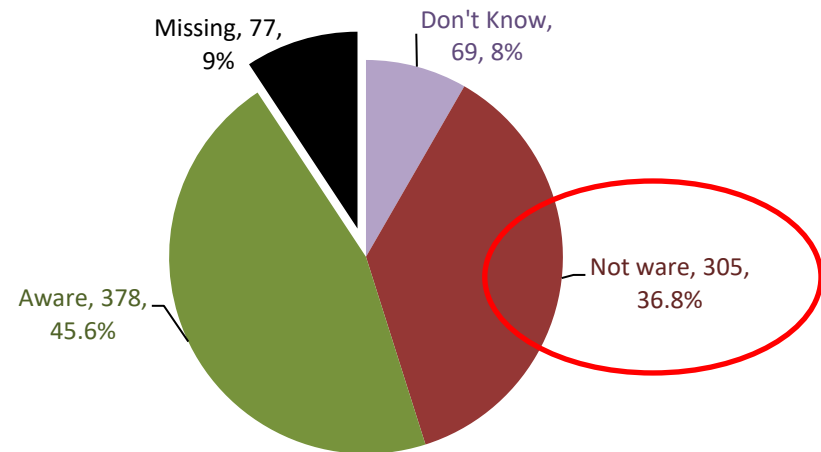
What has KDSAP learned from
community-based CKD prevention ?

High unawareness of DM & HTN among the KDSAP screening participants

Among 2,300 participants:

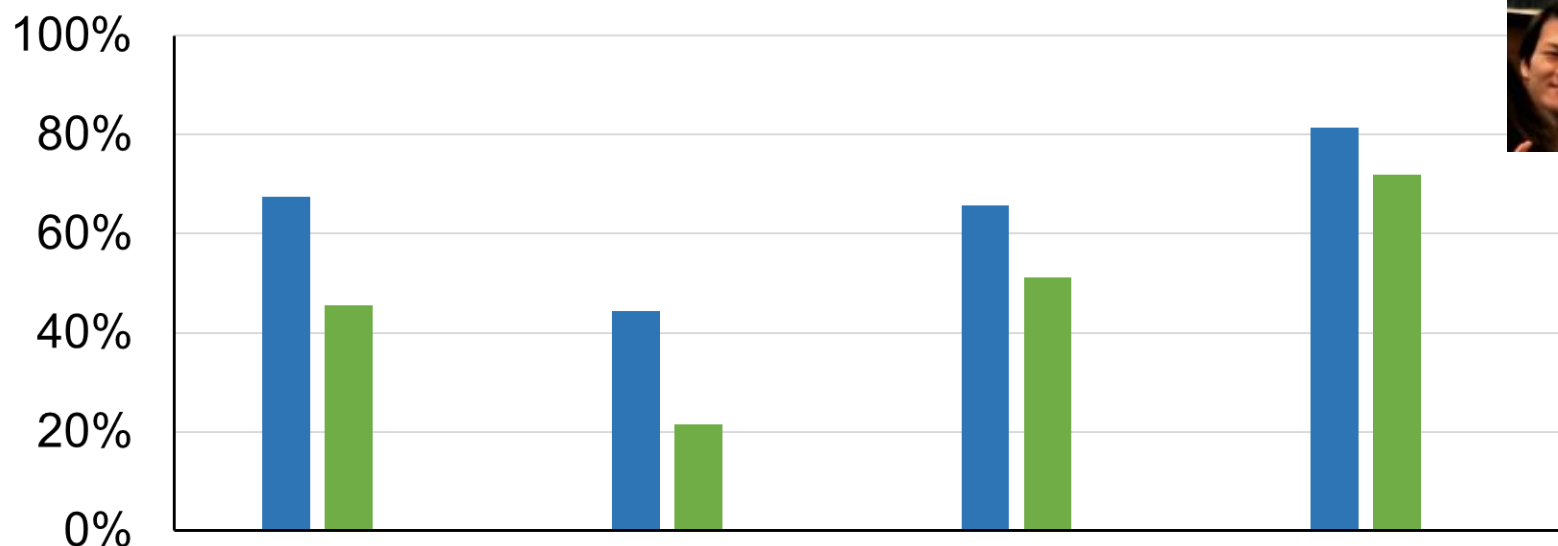


Diabetes unawareness: 26%
(22.9% per CDC 2022)



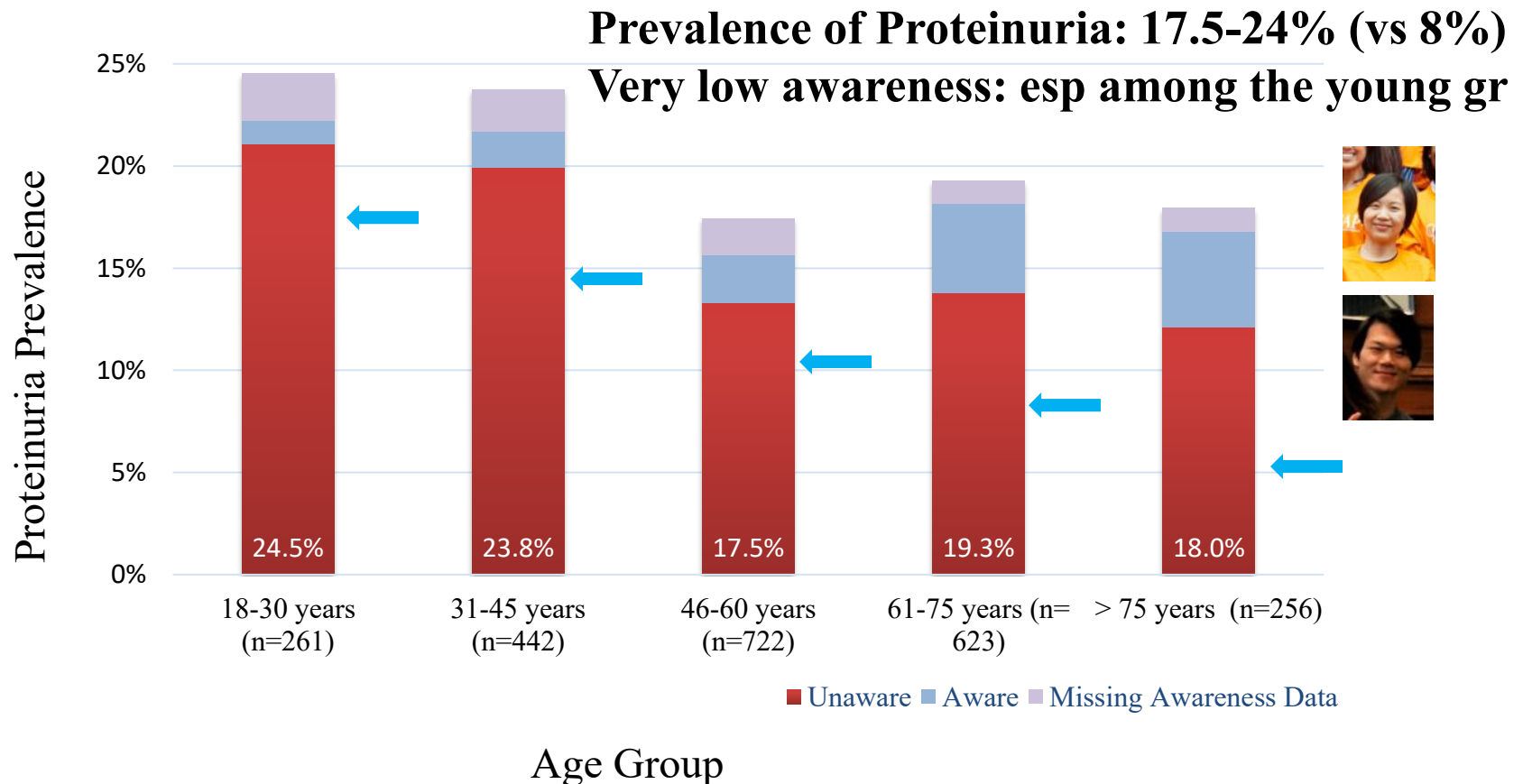
HTN unawareness: 36.8%
(16% per CDC 2017)

High prevalence of hypertension among the KDSAP participants when compared to NHANES



	Total	Age < 40	Age 40-59	Age ≥ 60
■ KDSAP	67.5 % (1410/2088)	44.3% (196/442)	65.6% (523/797)	81.4% (691/849)
■ NHANES	45.6%	21.4%	51.1%	71.8%

Proteinuria in the KDSAP participants in Community: High Prevalence and Low Awareness

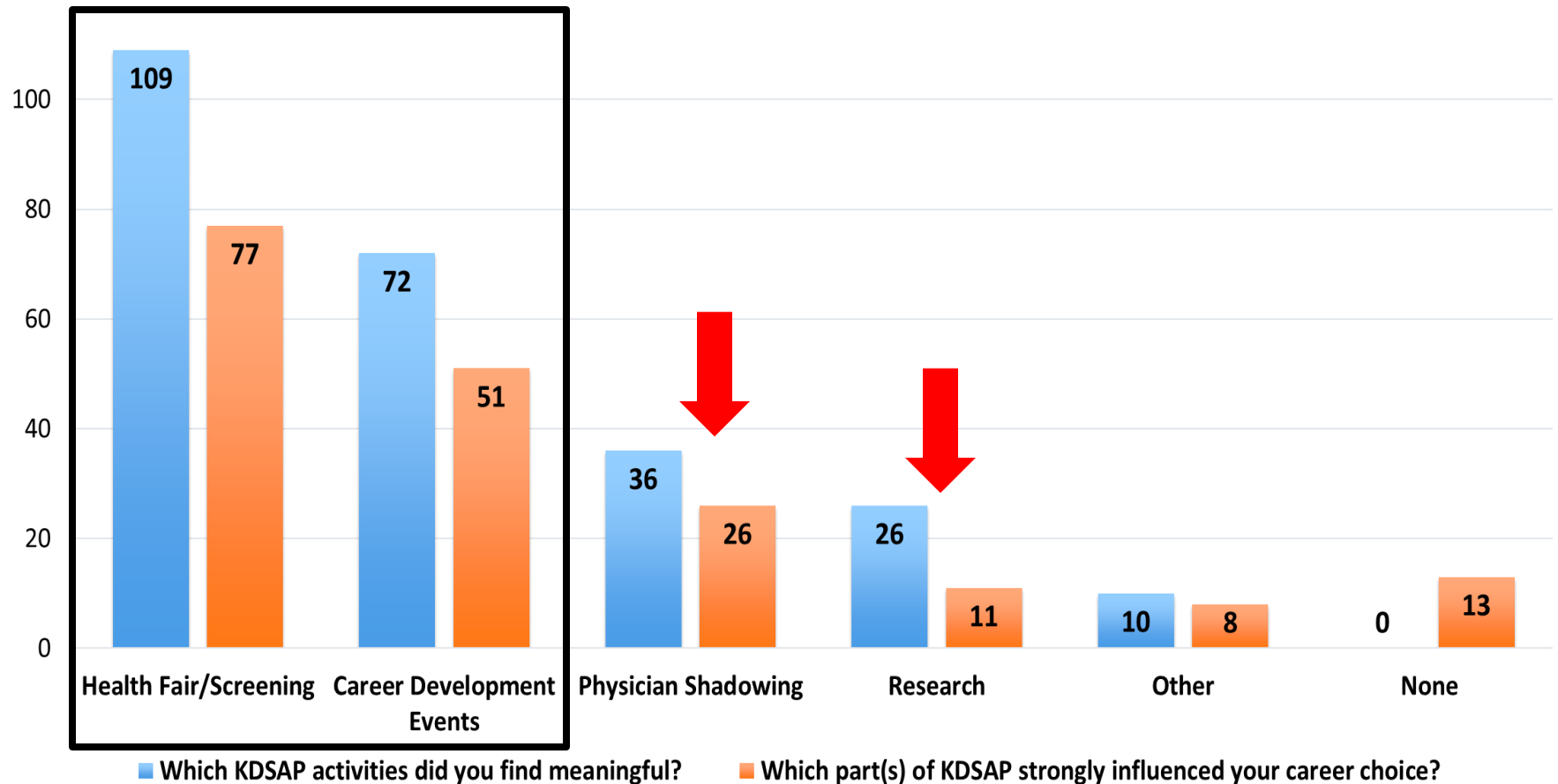


Impact of KDSAP

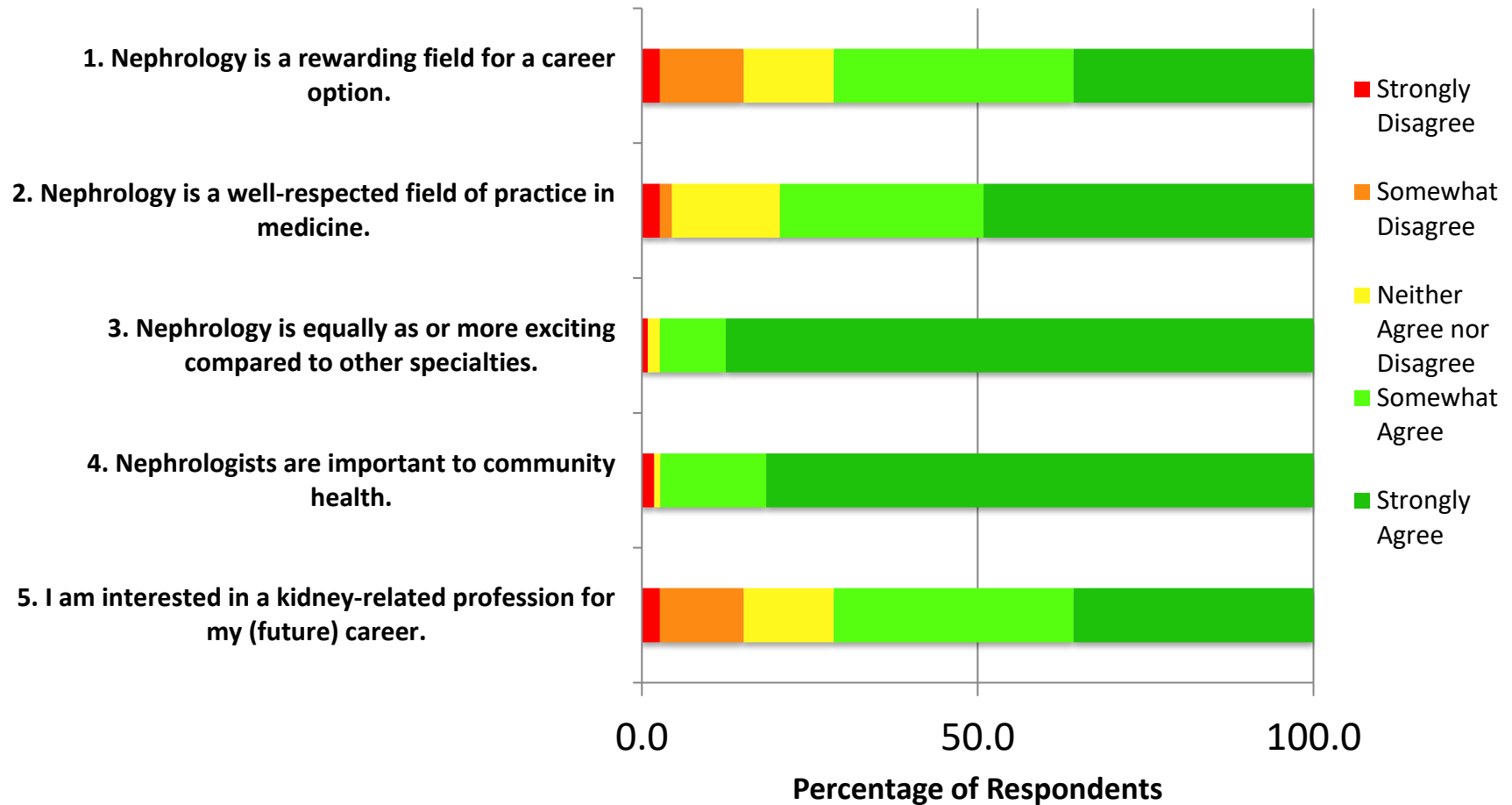
Impact of KDSAP on its members is beyond graduation

- Alumni survey after 10 years of KDSAP inception
 - Survey form was sent to 173 alumni
 - Received response from 112 (64.7%)

KDSAP activities play important roles in alumni's career Choices



KDSAP alumni's perception on nephrology are very positive



KDSAP Trainee's Perspective On nephrology



Topic	Reflection
Kidney screenings	<i>"Working at the urinalysis table, I was initially uncomfortable handling the urine samples. Once I learned about the wealth of information that we could collect from the simple urine test, however, I became amazed by the value of the tests, and handling the urine samples and working the machines became exciting."</i>
Kidney screenings	<i>"A highlight of each screening is hearing from our mentor Dr. Hsiao about an interesting case that she saw that day (Case of the day)."</i>
Career choice	<i>"While KDSAP has not made me certain that I want to be a nephrologist, it has made me much more aware of, informed about, and interested in nephrology."</i>
Career choice	<i>"To say that KDSAP had a significant impact on my life would be an understatement... my involvement in this organization has significantly influenced my decision to pursue a career in primary care..."</i>
Education	<i>"Leading Pitt KDSAP revealed a consistent relationship: the more people were educated, the more they proactively cared for their health and thus reduced their susceptibility to CKD. As a physician, I hope to emphasize this connection between health and education."</i>

Impact of KDSAP

Shortage in Nephrology Workforce

How do we recruit early in the pipeline?

JASN 2014

OCCASIONAL OBSERVATION

www.jasn.org

The Kidney Disease Screening and Awareness Program (KDSAP): A Novel Translatable Model for Increasing Interest in Nephrology Careers

Discussion

inpatient and ambulatory care, we hope that KDSAP's potential to contribute to the workforce would encourage leaders of nephrology training programs to encourage opportunities for fellows to engage in community outreach by integrating these activities into nephrology training curricula. Practicing nephrologists who have

....We hope that KDSAP's potential to contribute to the workforce would encourage leaders of nephrology training programs to encourage opportunities for fellows to engage in community outreach by **integrating these activities into nephrology training curricula.....**

Impact of KDSAP

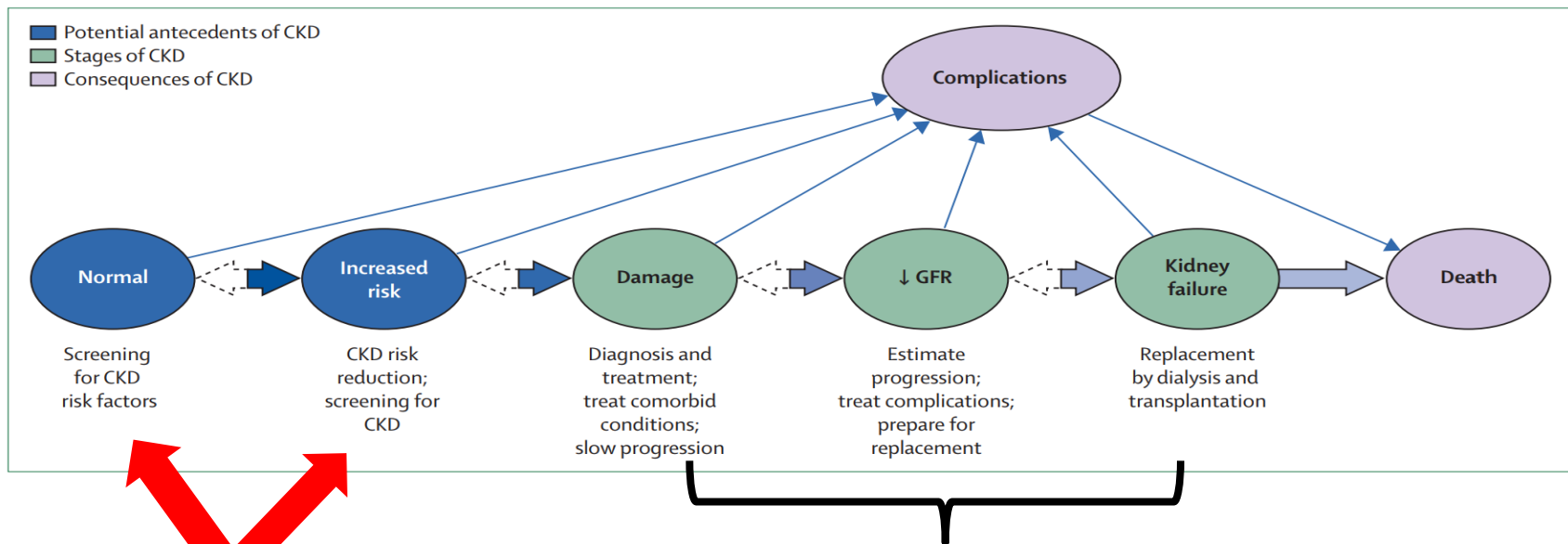
Shortage in Nephrology Workforce

How do we recruit early in the pipeline?

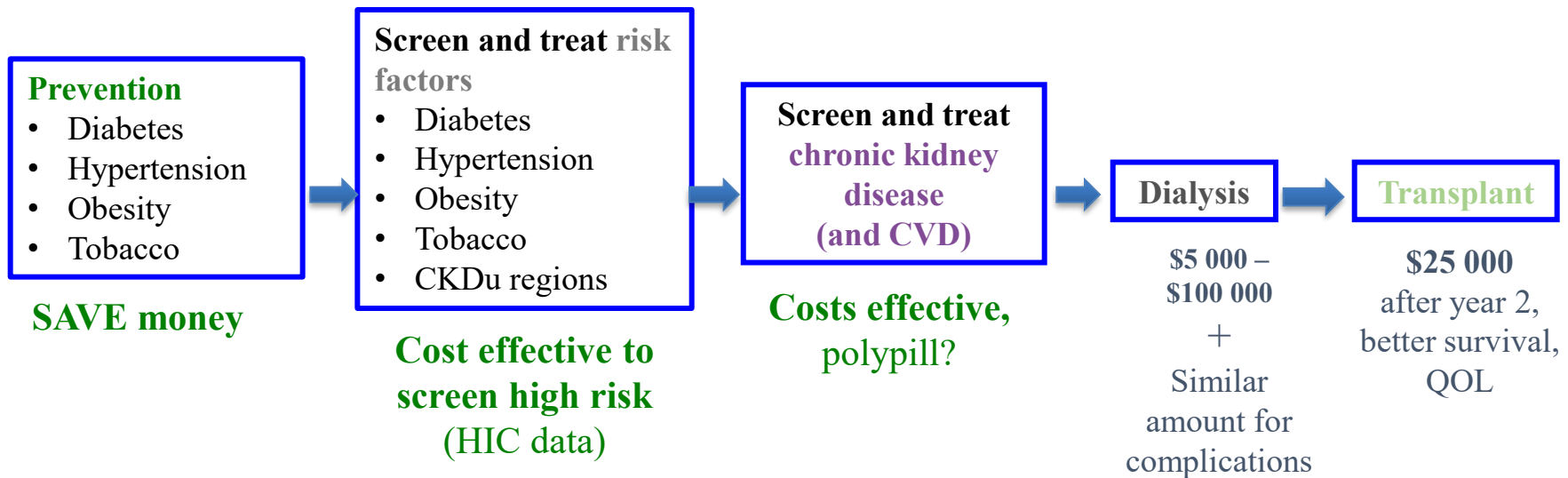
- NIDDK's KUH (Kidney Urology & Hematology) branch has made "community outreach" a requirement for fellowship training program grant
 - ✓ In 2020, Changed Fellowship training program from T32 to U2C, C=community outreach

Strategies of CKD Prevention

- How to early Screen CKD patients?
- How to Establish Integrated care program?

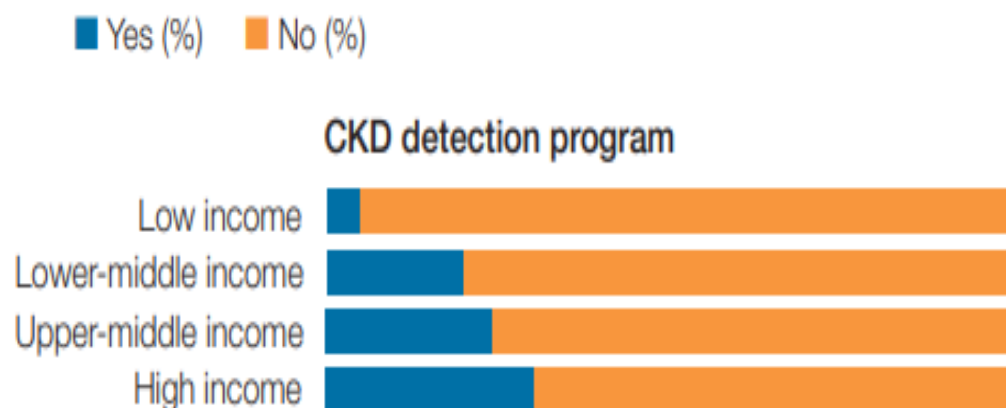


Main focus and efforts (time, energy and money)



Not “cost effective”

Screening for CKD is lacking, worldwide



Can KDSAP serve as a Model?

- The KDSAP's community-base approach particularly the underserved or minority populations is the right approach
- KDSAP is an effective model to address kidney disease
 - In the community level
 - To raise awareness of CKD
 - To identify at-risk individuals through its community outreach activities
- Screening for CKD risk factors in USA/high income countries can be cost effective

Recruiting undergraduate students as volunteers

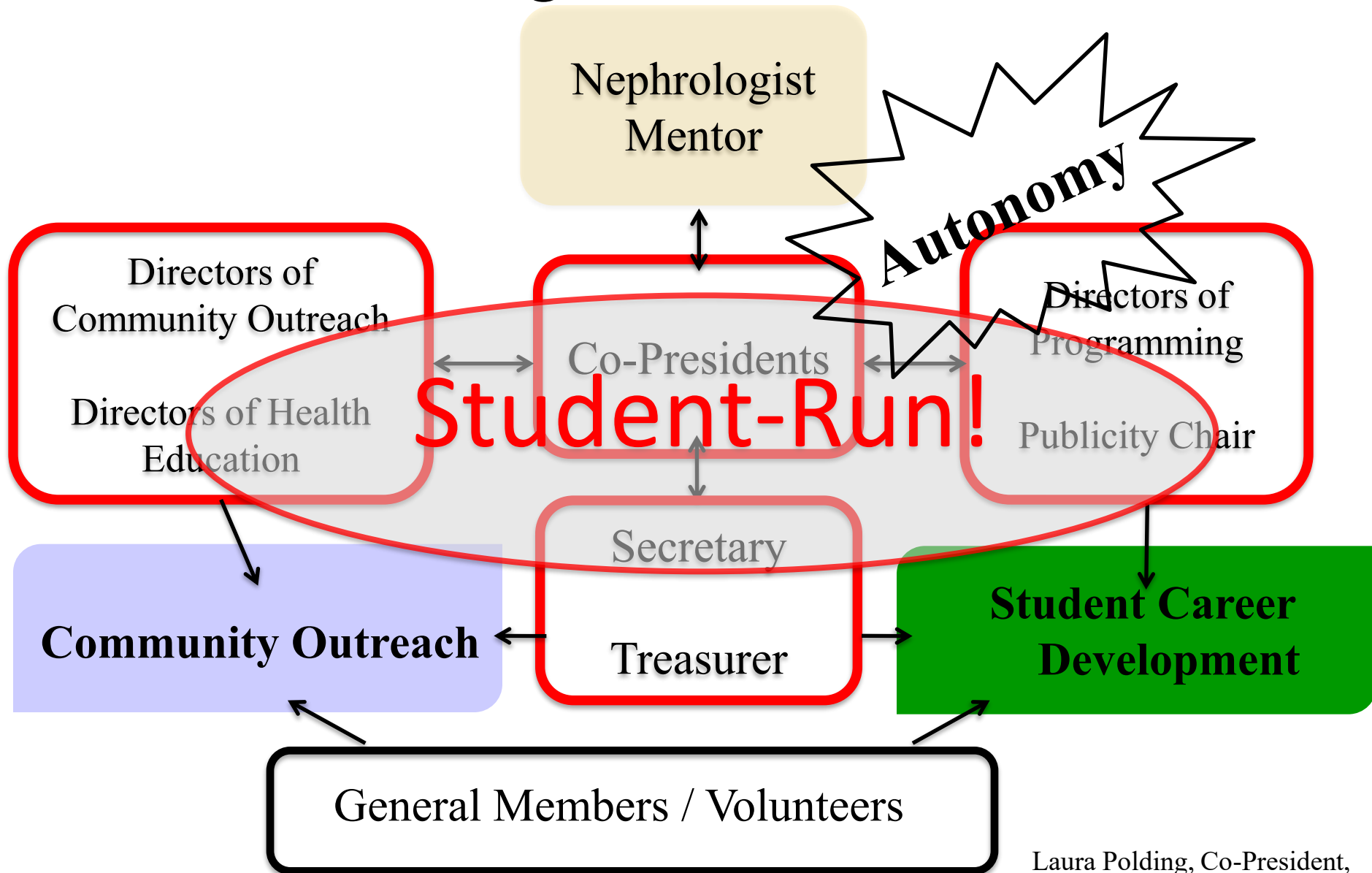
- ✓ ***KDSAP model works in USA***
- ✓ ***It has proved to be a sustainable model***

Strategies of CKD Prevention-How to early Screen CKD patients? How to Establish Integrated care program?

Few of my thoughts:

- will KDSAP work in Asia?
- If not, who will be the idea group, organization in the region to “enter” community?

KDSAP Organizational Structure



Laura Polding, Co-President,
Harvard College Chapter

Strategies of CKD Prevention-How to early Screen CKD patients? How to Establish Integrated care program?

Few of my thoughts:

- How to reward “Physician/Faculty” entering community as mentor?
 - Grants for educators
 - Mechanism to count such service as “productivity”?

Acknowledgements

- Community leaders & members
- Every KDSAP members
- Faculty advisors and universities of KDSAP chapters
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- Andrew Cho
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- Yueming Luo, M.D. (also Ph.D. Candidate)
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