



COMMUNITY KIDNEY DISEASE DETECTION

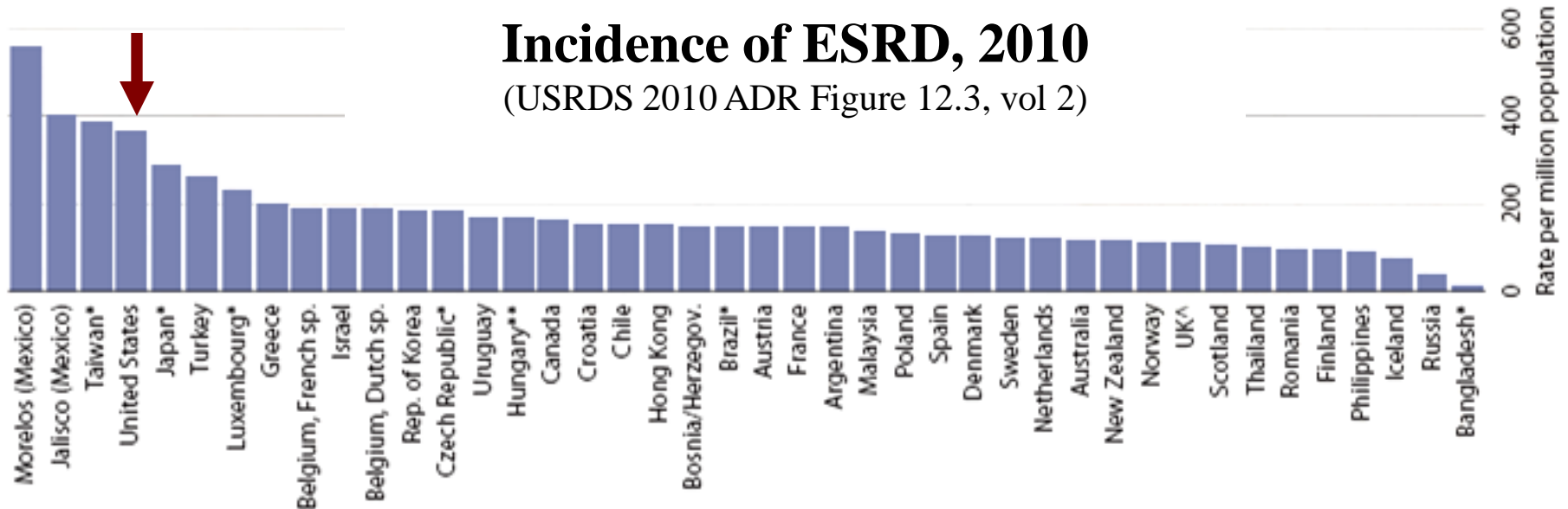
*A Community-Based Platform
for Student Leadership Development
in Nephrology*

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Chronic kidney disease (CKD): a major health problem in the U.S.

- 14.2% of the U.S. adult population has CKD (USRDS 2010 ADR NHANES 2003-2006)
- In 2004, ~500,000 Americans suffered from ESRD, a number projected to reach 1.8 million by 2020 (Collins 2007; Grassman 2005)

Incidence of ESRD, 2010
(USRDS 2010 ADR Figure 12.3, vol 2)



Shortage in Nephrology Workforce

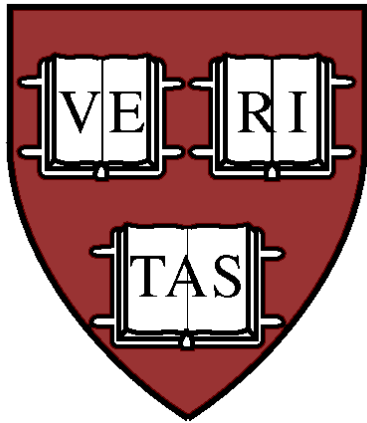
- Greater demand for renal care
 - Rising prevalence of CKD
 - Aging population in the U.S.
- Waning interest in nephrology as a career choice
 - Only subspecialty to attract fewer trainees in 2009 than in 2002

RESULT: Increasing shortage of nephrologists

- AAMC estimates shortage of 91,500 physicians by 2015 – nephrologists comprising half.

What is Kidney Disease Screening & Awareness Program (KDSAP)?

- Public renal health initiative developed in 2007
- A collaboration between Harvard College & Brigham and Women's Hospital



KDSAP Key Objectives

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graph TD; A[KDSAP Key Objectives] --> B[COMMUNITY KIDNEY DISEASE DETECTION]; A --> C[Student Development]; B --> D[Community Outreach]; B --> E[Student Development];
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**COMMUNITY
KIDNEY DISEASE
DETECTION**

Community Outreach:

- Health Screenings
- Health Education

Student Development:

- Seminar Series
- Discussion Panels
- Clinical Shadowing
- Hierarchical Mentoring

Community Kidney Disease Detection (CKDD)
**as a community-based platform for promoting
student interest and leadership in nephrology**

Free Community Health Screenings



1: Registration



2: Questionnaire



3: Health Education



5: Blood Pressure



4: BMI + Waist Circ.



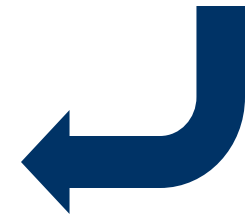
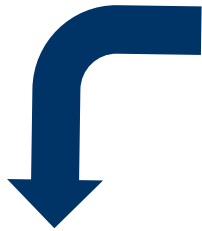
6: Urinalysis



7: Blood Glucose



8: Physician Consult



Sample Questionnaire



社區腎臟健康篩檢問卷

Community Kidney Disease Detection
Health Screening Questionnaire

受檢者編號
Participant ID Number

說明: 請盡量填寫所有問題以獲得最精準的篩檢結果。如果你有任何問題無法回答請直接跳過。所有的回答我們都將保密。如果你有任何不明白的地方請隨時詢問我們的義工。

請清楚書寫你的名字、地址以及電話以便就你的檢驗結果進行必要的追蹤。

Direction: Please complete the following questions. To get the most accurate results, answer as many questions as you can. If you don't know the answer, leave it blank. All answers will be kept confidential. If you have a question at any time, please ask a volunteer.

Please be sure to print your name, address and phone number clearly, in case we need to follow up with you regarding your results.

受檢人姓名 Participant's Name

英文姓名 English Name (First, Middle Initial, Last)

中文姓名 Chinese Name

郵寄地址 Mailing Address

街名 Street

城市 City

州名 State

郵遞區號 Zip

聯絡電話 Preferred Phone Number(s)

緊急聯絡人 Emergency Contact

電話 Phone #:

主要語言 Language

- 華語 Mandarin
 台山話 Taishanese/Hoisanese
 廣東話 Cantonese
 閩南話 Southern-Min/Taiwanese
 English
 其他 Other

A1. 你是否有妊娠糖尿病? Do you have gestational diabetes?

是 Yes 否 No 不知道 Don't Know

A2. 診斷時間: Year of diagnosis:

年齡 AGE 或 or 診斷年份 YEAR

A3. 是否在治療? Are you being treated?

是 Yes 否 No 不知道 Don't Know

A4. 是否使用胰島素? Are you taking insulin?

是 Yes 否 No 不知道 Don't Know

A5. 你使用胰島素多久了?

How long have you been using insulin? 年 Years

A8. 其他糖尿病相關疾病: Other diabetes related diseases:

- | | | |
|--|--|--|
| | 我患有 I have had | |
| | Yes No Don't Know | |
| a) 糖尿病導致視能受損 Eye damage (Diabetic Retinopathy) | <input type="checkbox"/> 是 <input type="checkbox"/> 否 <input type="checkbox"/> 不知道 | |
| b) 神經受損 (疼痛、足部或手部感到刺痛或麻木) Nerve damage (pain, tingling or numbness in hands or feet) | <input type="checkbox"/> 是 <input type="checkbox"/> 否 <input type="checkbox"/> 不知道 | |

B. 高血壓 High blood pressure

	我患有 I have		家族成員患有 Family member has
	Yes No Don't Know		Yes No Don't Know
<input type="checkbox"/> 是	<input type="checkbox"/> 否	<input type="checkbox"/> 不知道	<input type="checkbox"/> 是
Yes	No	Don't Know	Yes No Don't Know

B1. 診斷時間: Year of diagnosis:

年齡 AGE 或 or 診斷年份 YEAR

B2. 是否在治療? Are you being treated?

是 Yes 否 No 不知道 Don't Know

C. 高膽固醇 High cholesterol

	我患有 I have		家族成員患有 Family member has
	Yes No Don't Know		Yes No Don't Know
<input type="checkbox"/> 是	<input type="checkbox"/> 否	<input type="checkbox"/> 不知道	<input type="checkbox"/> 是
Yes	No	Don't Know	Yes No Don't Know

C1. 診斷時間: Year of diagnosis:

年齡 AGE 或 or 診斷年份 YEAR

C2. 是否在治療? Are you being treated?

是 Yes 否 No 不知道 Don't Know

	我患有 I have had			家族成員患有 Family member has had		
	Yes	No	Don't Know	Yes	No	Don't Know
D. 冠狀動脈疾病 Coronary artery disease	<input type="checkbox"/> 是	<input type="checkbox"/> 否	<input type="checkbox"/> 不知道	<input type="checkbox"/> 是	<input type="checkbox"/> 否	<input type="checkbox"/> 不知道
E. 心律不整 Abnormal heart arrhythmia	<input type="checkbox"/> 是	<input type="checkbox"/> 否	<input type="checkbox"/> 不知道	<input type="checkbox"/> 是	<input type="checkbox"/> 否	<input type="checkbox"/> 不知道
F. 心臟衰竭 Heart failure	<input type="checkbox"/> 是	<input type="checkbox"/> 否	<input type="checkbox"/> 不知道	<input type="checkbox"/> 是	<input type="checkbox"/> 否	<input type="checkbox"/> 不知道

Opportunities for Student Leadership Development

Serving as a board member

Serving as a clinic manager or station leader

Giving health education talks to community groups

Opportunities for Pre-Medical Training & Career Exposure

Universal Precaution & Professionalism (UPP) Training

Blood Pressure Training Workshops

CKD/ Health Education Training

Hierarchical Mentoring

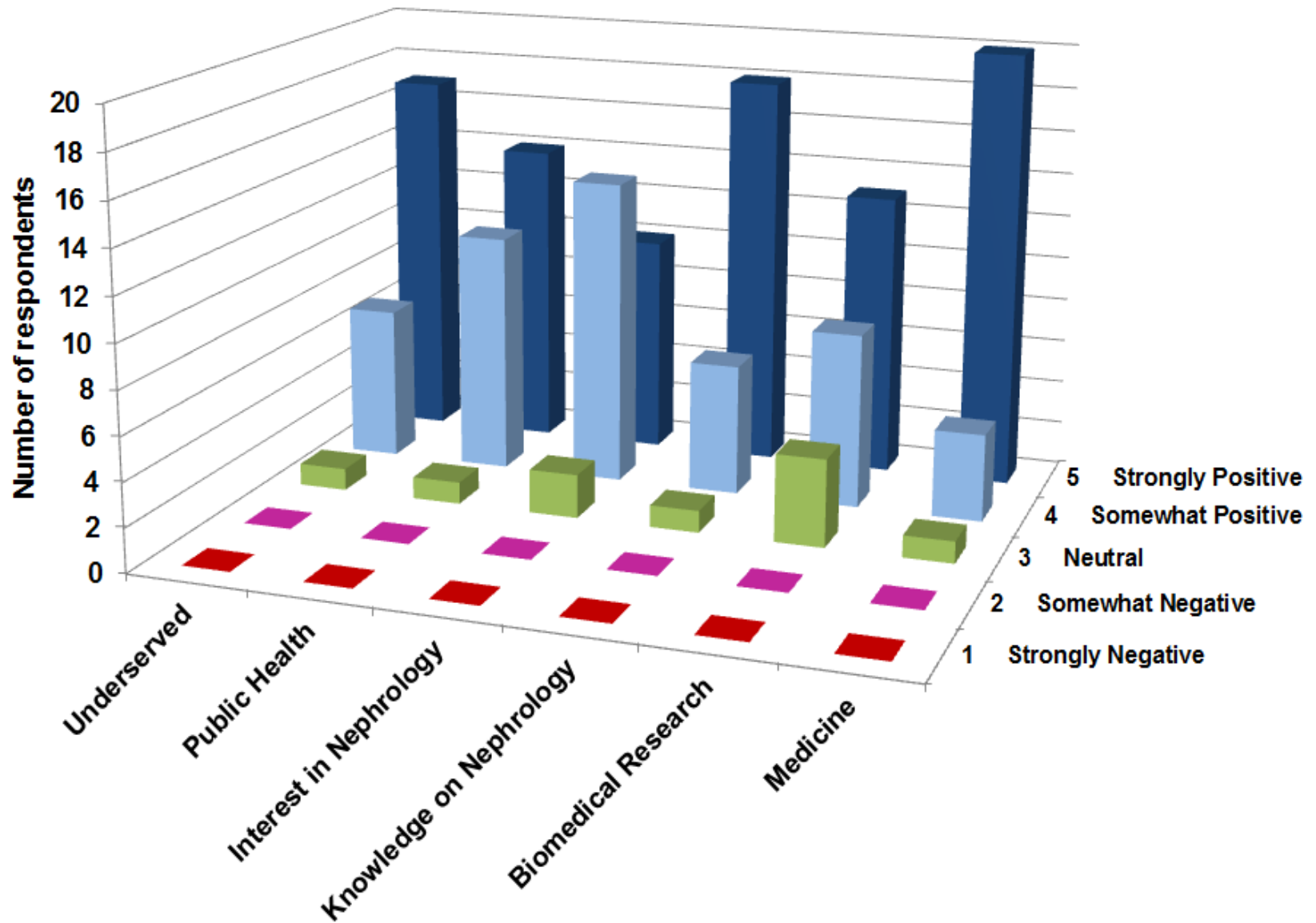
Results

- Screened and educated over 4000 community members in 21 different communities across Massachusetts
- Subscribed membership of more than 250 undergraduates since 2007
- Broad representation of student volunteers, ranging from high school to graduate/medical students.
- 134 students successfully trained & certified for BP and UPP

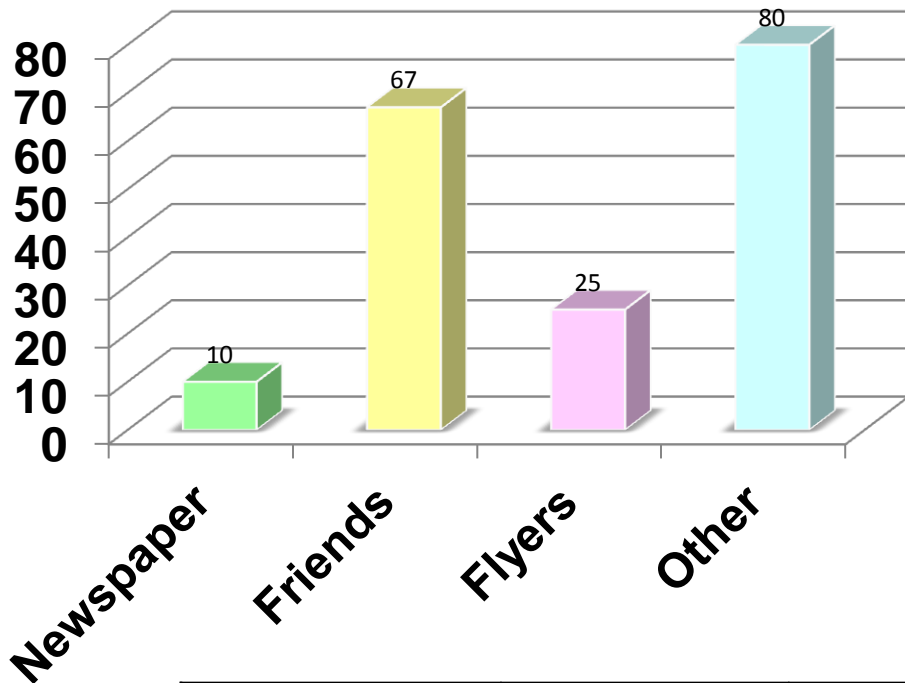
Student Volunteers Demographics

Health Screenings Attended		Involved in Research		Future Career Plans	
0 - 1	8 (29%)	None	0 (0%)	Considering Medicine	22 (82%)
2 - 3	11 (41%)	Medical Research	20 (74%)	Not Considering Medicine	5 (18%)
4 - 5	5 (19%)	Non-Medical Research	7 (26%)		
6+	3 (11%)				

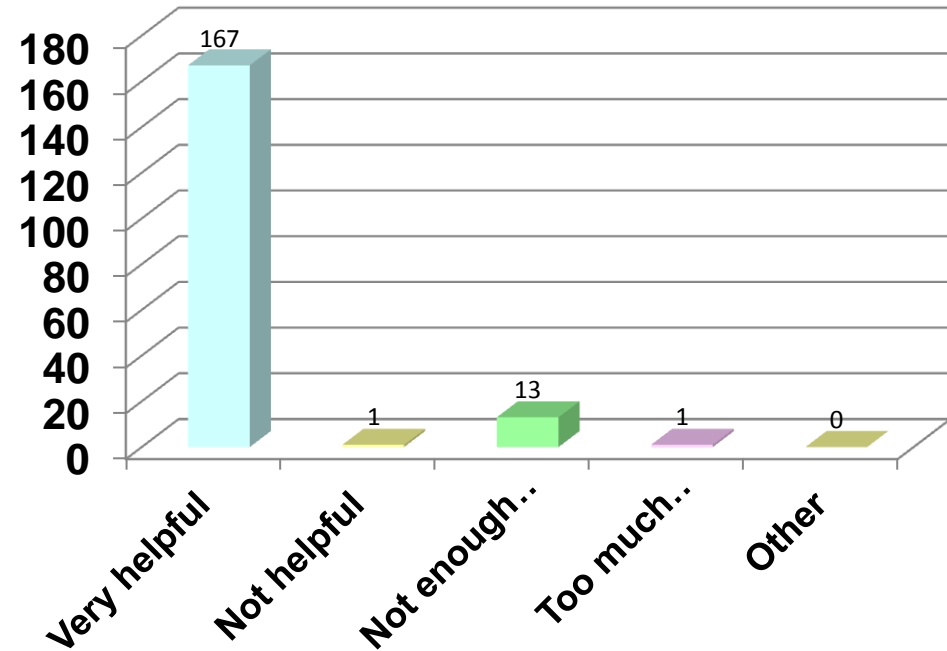
Positive influence on student interests in various aspects of medicine via CKDD



How do you know about CKDD screening?



Services provided during the screening



Friendliness	Volunteer knowledge	Screening layout	Waiting time	Screening tests
4.83±0.66	4.67±0.80	4.62±0.85	4.63±0.85	4.66±0.82

Scale: 1-Very Unsatisfied; 5-Very Satisfied

Career Trajectory of CKDD Members

Career Trajectory	# of Members
Nephrology as Career Choice	1
Chronic Kidney Disease (CKD) Research	1
Acute Kidney Injury (AKI) Research	1
Focal Segmental Glomerularsclerosis (FSGS) Research	1
Kidney Stem Cell Research	1
Polycystic Kidney Disease (PKD) Research	2
History of Medicine Research	1

Summary

- Increasing shortage in CKD care provisioning
- Community Kidney Disease Detection (CKDD) raises awareness of CKD and identifies individuals at risk via community outreach
- CKDD provides students opportunities for leadership development, pre-medical training, and career exposure
- CKDD has a strong positive influence on student interest in nephrology

Conclusions

- Community Kidney Disease Detection (CKDD) *addresses the problem of rising CKD prevalence using community outreach.*
- Community Kidney Disease Detection (CKDD) *effectively promotes student leadership and interest in nephrology.*

Future Directions

- A comprehensive Community Kidney Disease Detection (CKDD) handbook
- Complete UPP training & certification of all volunteers
- Expansion into diverse ethnic and under-served communities including Laos and Cambodian
- Follow-up on past CKDD members on their career paths

Acknowledgements

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KDSAP board members

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Renal Division,

Brigham and Women's Hospital



Questions?

- **Dr. Li-Li Hsiao Contact (Lhsiao@partners.org)**
- **Gene Yoo Contact (jyoo@fas.harvard.edu)**
- **Kidney Disease Screening & Awareness Program Website (www.hcs.harvard.edu/harvardkdsap)**