The New Jersey Medical School expresses our gratitude to Dr. and Mrs. Pozen for their continued support and provision of funding that allows our students to continue to engage in initiatives that impact our community positively through service. Below is a description of the service efforts the students engaged in with the support they received. It is important to note that faculty members were actively involved in establishing and administering some of these projects, thereby building on our robust and ongoing commitment to the community.

Leila Mady
“A Healthy Lifestyles Community Fair: Fun Tips on Living a Better Life”

Using Healthy People 2010 as a framework the student designed a project to bring health promotion and disease prevention initiatives to the local community in Newark. The project allows members of the Newark community to learn and experience "healthy lifestyle choices” through live demonstrations and workshops. The live demonstrations and workshops addressed topics such as healthy cooking; oral hygiene; yoga, step, spinning, kickboxing, zumba, dance and walking as simple, accessible forms of exercise; injury prevention; massage therapy; blood pressure and diabetes screenings. The activities featured also emphasized to the community that being healthy can be fun and enjoyable. They demonstrate how community members can implement simple nutrition and fitness modifications at home and place of work. By educating the community in this manner, individuals are equipped with the tools they need to begin to make healthy choices, which in turn improve the health of the community and the Nation.

The activities were carried out in partnership with the YMCA at UMDNJ, the New Jersey Dental School, and several student organizations at New Jersey Medical School thereby emphasizing the value of cooperative work amongst the different branches of healthcare providers in order to achieve the goal of a Healthy nation. Furthermore, the program coordinator and volunteers learn to identify health/public health problems in the Newark community, develop targeted interventions for specific problems and work together as a team to implement such interventions while assessing its effectiveness.

The student serves as the program coordinator and is responsible for the organization and management of the community fair as well as coordination of the efforts of volunteers across the university. As the liaison between all participants, the student works closely with the faculty sponsors to organize the logistical aspects of hosting events. In this way, the student learns to integrate the resources and talents of a diverse array of university based student initiatives.

Ahmed Sesay
“German Leprosy and tuberculosis Relief Association”

As a volunteer with the German Leprosy and Relief Association, the student accompanied physicians travelling through Sierra Leone in providing treatment for tuberculosis and leprosy. The student performed patient screening, took detailed history of patient's illnesses and past medical conditions, performed physical examinations and provided education to members of the community about Leprosy and Tuberculosis; prevention and available treatment. In providing service in this initiative, the student learned about the health challenges in the global community especially in developing nations as well as potential means of harnessing available resources to overcome them.

The German Leprosy and Tuberculosis Relief Association is an organization that utilizes novel treatments with public advocacy in combating tuberculosis and leprosy throughout hospitals and clinics in approximately 40 countries around the world. In Sierra Leone today, there are approximately 55,000 individuals living with TB and that number is increasing exponentially due to the rise in HIV incidences.
Students Learning about Medicine (S.L.A.M) is an outreach initiative that was designed by the student to actively educate and expose sophomore, junior and senior students at Barringer High School (BHS) in Newark to the many fields and opportunities in the robust biomedical field. The student recruits and coordinates students from many schools within UMDNJ to make monthly presentations to the BHS students about requirements to get into a specific field as well as examples of activities in that field. This is followed by an open forum for the high students to ask the presenters more specific questions. Mentorship relationships between the students and the UMDNJ students serve to motivate students to advance their education goals beyond completing high school to pursuing advanced learning at Universities and Colleges. In addition these relationships provide an outlet for resolution of personal/social conflicts as well as provision of personalized guidance for future career and academic planning. The students are also educated about programs and fellowships that will aid them in college acceptance.

BHS represents a culturally diverse population of “at-risk” high school students in an Abbott School District. They are at a very critical phase of life where gaining interest in science can have a substantial impact on career choices and their future. By utilizing the great diversity present at UMDNJ, this initiative hopes to influence the direction of their lives and the roles they take in the community positively.

The Health Literacy Fellowship is a summer program initiated by the New York City Mayor's Office that offers medical students the opportunity to participate in community fieldwork, research, and educational seminars focused on improving health literacy in the United States. This service-based fellowship allows students to work with teachers in adult education programs in the City to promote functional literacy skills.

As a summer participant, the student had the opportunity to teach residents of underrepresented and low-income communities about important health topics that range from correctly reading prescription labels to simple lifestyle changes that help prevent common chronic diseases. Following the summer, the student continues to participate in monthly health policy seminars with clinicians, policy makers, and researchers who are leaders in improving health literacy through medicine, politics, and education.

In addition the student will in conjunction with a field expert perform analysis of health literacy problems in a community and proffer solutions that could potentially develop into policies and educational tools to improve health.

The students accompanied a physician team to East Africa on a mission to investigate effective means of tuberculosis control. They were given training that enabled them to assist with clinical testing in the communities they visited. They specifically assisted with clinical evaluation, tuberculin skin test (TST) application and intravenous blood draws for further testing. The student's participation in the study provided them exposure and understanding of infectious diseases in the local and global community as well as tools and available resources for combating them.

As a result of these activities the students hope to participate in contribution of proposals of further studies that can potentially result in more effective infection control measures in TB endemic areas both locally and globally.
PURPOSE OF PROJECT

According to the U.S. Department of Health and Human Services, more than 1.7 million Americans die of chronic disease each year. Chronic diseases account for 75% of the $1.4 trillion spent on healthcare in our Nation. As a tool to reduce our Nation’s burden of disease, Healthy People 2010 is a comprehensive set of disease prevention and health promotion objectives for the Nation to achieve over the first decade of the new century. Healthy People 2010 aims to achieve two overarching goals: to increase quality and years of healthy life and to eliminate health disparities. Using Healthy People 2010 as a framework, the idea for “Healthy Lifestyles Community Fair: Fun Tips on Living a Better Life” began as an initiative to prevent disease and promote health in the Newark community. The concept behind “Healthy Lifestyles Community Fair: Fun Tips on Living a Better Life” was to allow members of the Newark community to learn about and experience “healthy lifestyle choices” through live demonstrations and workshops which emphasize nutrition, fitness, and physical and mental well-being.

The “Healthy Lifestyles Community Fair: Fun Tips on Living a Better Life” evolved into a collaborative initiative with the Downtown Newark YMCA called “UMDNJ – YMCA Healthy Kids Day,” which was held at the Downtown Newark YMCA on May 15, 2010. Healthy Kids Day is an annual event hosted by the YMCA (it is also the nation’s largest free health day for children and families) and offers community members a chance to be active together and learn more about wellness and healthier living. In order to reduce the burden of diseases such as obesity, diabetes, asthma, heart disease and stroke, it is clear that we must address the risk factors for chronic disease including physical inactivity, poor nutrition, tobacco use and youth risk taking. The UMDNJ – YMCA Healthy Kids Day aimed to address these risk factors particularly among children and adolescents considering the increasing proportion of children and adolescents who are overweight or obese. Made possible through the generous support of the Richard and Ann Silver Pozen Community Scholars Program, the initiative represented the first time UMDNJ and the YMCA worked together for Healthy Kids Day.

PUT PLAY IN YOUR DAY: MAY 15TH, 2010

PUT PLAY IN YOUR DAY: MAY 15TH, 2010

NEWARK YMCA HEALTHY KIDS DAY

IN COLLABORATION WITH THE UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY

Activity | Location | Time
---|---|---
Summer Camp Gallery | Parking Lot - Rocket Street | 10:00-1:00, 1:30-4:00
Rain or Shine! | Lower Level Assembly Area/Pool | 10:00-1:00, 1:30-4:00
YMCA Membership Information Booth | Cardiac Fitness Center | 10:00-1:00
Arts and Crafts | Recreational Area | 10:00-1:00
Capers | Racquet Court 1 | 10:00-1:00
Aikido | Racquet Court 1 | 10:00-1:00
UMDNJ Health Fair | Racquet Court 2 | 10:00-1:00
Duckworks Massage Therapy | Racquet Court 3 | 10:00-1:00
Fitness Testing | Gymnasium - Court 1 | 10:00-1:00
UMDNJ Health Fair | Gymnasium - Court 2 | 10:00-1:00
Juniors | Parking Lot - Rocket Street | 10:30-1:00, 12:30-3:00
Annie Oakley | Parking Lot - Rocket Street | 10:30-1:00, 12:30-3:00
KinderCare Day Care | Parking Lot - Rocket Street | 10:30-1:00, 12:30-3:00
UMDNJ / ISUN - Nutrition Fair | Parking Lot - Rocket Street | 10:30-1:00

Acknowledgments

Photos courtesy of Paul T. Hsu, NJMS Class of 2011
A special thanks to the UMDNJ – New Jersey Medical School Office of Special Programs; Dr. Richard Pozen and Mrs. Ann Silver Pozen; my parents, John and Samira Mady; and my sister, Rana Mady, NJMS Class of 2011.
In 1951, most of the world had forgotten about leprosy (Hansen’s disease) as its health impact on developed nations was no longer a cause for concern. Recognizing that this disease continues to ravage many in the developing nations, a few brave men and women circulate within the poorer regions of the globe, diagnosing and providing treatment for thousands of afflicted individuals. Although the organization’s focus was centered on solving the problem of leprosy in the poorer regions of the globe, the epidemic of HIV and tuberculosis dictated a need for modification in plans. Success over the last few decades in combating these diseases has been achieved as a result of a multifaceted approach wherein novel treatments and diagnosis are combined with an improved guidance in advocacy, communication and social mobilization. In 1996, the German Leprosy Relief Association (GLRA) partnered with The Republic of Sierra Leone to create a local organization to address leprosy in the Bombali district. This gave rise to the establishment of the National Leprosy and Control Program (NLTCP) by the Sierra Leonean Ministry of Health. In this way a major platform for nationwide anti-leprosy campaign was born.

The success of the organization in combating tuberculosis and leprosy has been largely dependent on the efforts of individuals working behind the scenes to secure funding and those working cooperatively with the different branches of the United Nations, the Sierra Leonean Ministry of Health and the various amputee organizations in Sierra Leone.

Leprosy

Leprosy is an infectious disease that has been documented throughout civilizations. It is characterized by disfiguring skin sores, nerve damage, and progressive debilitation.

Causes, incidence, and risk factors

- Leprosy is caused by the organism Mycobacterium leprae. It is difficult to transmit and has a long incubation period. Children are more susceptible than adults to contracting the disease.
- Leprosy has two common forms: tuberculoid and lepromatous. Both forms produce sores on the skin, but the lepromatous form is more severe, producing large, disfiguring nodules. All forms of the disease eventually cause nerve damage in the arms and legs, which causes sensory loss in the skin and muscle weakness. People with long-term leprosy may lose the use of their hands or feet due to repeated injury resulting from lack of sensation.
- Leprosy is common in many countries worldwide, and in temperate, tropical, and subtropical climates. Approximately 100 cases per year are diagnosed in the United States. Most cases are limited to the South, California, Hawaii, and U.S. island possessions.
- Effective medications exist, and isolation of victims in “leper colonies” is unnecessary. The emergence of drug-resistant Mycobacteria leprae, as well as increased numbers of cases worldwide, has led to global concern about this disease.

Symptoms

- Skin lesions that are lighter than your normal skin color. Lesions have decreased sensation to touch, heat, or pain. Lesions do not heal after several weeks to months.
- Nummular or absent sensation in the hands, arms, feet, and legs.
- Muscle weakness

Treatment

A number of different antibiotics are used to kill the bacteria that cause the disease. Aspirin, prednisone or thalidomide are used to control inflammation.

Complications

- Cosmetic disfigurement
- Permanent nerve damage

Working with GLRA

Majority of my time in Sierra Leone was spent traveling the hinterlands of Sierra Leone to several leprosy chiefdoms and villages. During these trips, we distributed supplies and allocated funds in support of the social programs sponsored by GLRA. In addition, we inspected farming projects, and vocational institutions in ensuring that the funds are properly used. We also talked to patients about their needs and concerns while educating them about their disease and disabilities. On days when I was not traveling or attending meetings, I visited patients at the Laka Hospital. The Laka hospital is an institution in Freetown where majority of the severe cases of tuberculosis, HIV and a few other infectious diseases are admitted. During these visits, I participated in ward rounds with the attending physician and performed physical examinations. I also spent time interacting with patients, finding out their needs and learning about their experiences with their illness while providing some support and comfort.
Students Learning About Medicine (SLAM)

PROGRESS

To date, we have had 2 groups of students each give brief, fun, and educational presentations:

Careers in Medicine: February 2010
1st year medical students Stephen Dunay, Andrew Elden, Shanchita Ghosh, Yumini Lad, Kinar Mahmood, and Paul Therattil spoke to the students about several different avenues of entering the healthcare field. Using examples such as nurses, medical technicians, physical therapists, physicians and surgeons, they provided the students with some basic information including academic requirements, job description, work environment, and expected compensation among other things. Furthermore (and perhaps more significantly), our presenters each spoke at length about their own personal influences and experiences as they chose a path toward medicine. The presentation evoked natural discussion in small groups of what specifically intrigued the Barringer students about medicine and science, in order to help understand their own personal interests. Along with exposing students to new and previously unconsidered opportunities, we felt these conversations helped reinforce themselves as young adults, reinforce the ideas of planning for the future, and the importance of making a commitment to achievement early on in their careers. Above all we emphasized academic excellence and finding their passion in whatever field they choose.

Teen Health Issues: March 2010
2nd year medical students Jing Jing Feng, Eric Holder, Krysta Johnson-Harris, Liz Thattukadaill, and Kevin Ting led a discussion regarding the issues teens face each day: diet & exercise, sexual education, drug and alcohol abuse, and violence in their community. Each of these topics was approached from a medical perspective, since many of them have consequences that often present themselves at University Hospital. Our group provided pamphlets with facts and practical tips to incorporate in the students’ lives, such as better dietary habits and increasing their activity levels. Additionally, a number of provocative statistics were presented to challenge the students’ preconceptions regarding issues like sexually transmitted infections, HIV/AIDS, teen pregnancy, and gang violence. We were particularly struck by the students’ thoughts and experiences with everyday violence at home and at Barringer. It became clear this was a significant problem for the students, and warrants further discussion at another presentation in the future.

Students Learning About Medicine (SLAM) is a program that actively educates and exposes sophomore, junior and senior students attending Barringer High School (BHS) to the many fields and opportunities in the robust biomedical field. It is a collaborative effort of students from several schools at UMDNJ, including NJMS, NJDS, and GSBS. Early into the 2009-10 school year, Latino Medical Students Association (LMSA) representatives to BHS hosted a school-wide assembly to introduce ourselves and the program. Through these initial communications, we made critical relationships with school direction and acquired contact information for over 75 students interested in the program. Support in setting up the after school club was offered by administration, the science faculty, as well as by the student body.

BARRINGER HIGH SCHOOL

Barringer High School of Newark, New Jersey is one of the oldest public high schools in the country. Filled with a culturally diverse student population, these young adults are in the midst of a critical phase in their lives. As an especially high-risk population of Newark youth with regards to violence and substance abuse, acquiring career interestsnow is key to their graduation and pursuit of higher learning. As a member of the Newark community, we at UMDNJ possess similar diversity to Barringer, and perhaps have greater opportunities to reach these students and motivate them to consider careers in biomedical sciences.

CHALLENGES

In the pilot year for the program, we encountered some challenges that will be addressed and reexamined for the upcoming school year.

Education: Aside from our introductory presentations last fall, we were only able to put together two workshops for the students. We would like to at least provide educational presentations at least every other month. Topics will range from those covered in the previous year to clinical skills sessions and opportunities for continuing education.

Communication: We would like to maintain an open exchange of ideas with the administration at Barringer High School, and have a consistent person for contact to allow for this conversation. This will help improve our ability to maintain continuity with the students, and allow us to get more students involved.

Continuity with the students: In our first year, we ran into some difficulty making sure the students were informed of our presentation dates and timing. This year, we intend to confirm with the interested students and administration of a set presentation schedule, so that they may be able to join us consistently throughout the year.

Dialogue: We anticipate establishing rapport with the students so that they feel comfortable speaking to us about the problems they face in school, so that we may facilitate a discussion on ways to improve these issues.

Scholarship: One of our goals at Barringer is encouraging and promoting academic excellence. Ideally, we hope to get these students excited for a healthcare-related career, but at the very least ensure they have chosen a path that will set them up for success. In this vein, we want to reward students who consistently attend the programs and demonstrate achievement in class.

Mentorship: Ultimately, we hope to create long-lasting relationships with our students, either as individuals or in groups. We want to encourage them to become a part of the UMDNJ community and with our mentorship and continuity, we can provide the information and insight for these students early on and throughout their careers.
Introduction

Health literacy is defined as the "degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.\(^1\)"

Close to 9 in 10 Americans has limited health literacy skills, making interpreting and acting on health information difficult.\(^2\) This includes:

- Understanding prescription instructions
- Extracting information from pamphlets or labels
- Discussing health with physicians and asking pertinent questions

Consequences of low health literacy include:\(^3\)

- Less health knowledge
- Poorer health status
- Higher rates of health services utilization
- Higher health care costs

The economic burden of low health literacy is estimated to be between $106 billion and $238 billion.\(^4\)

Many physicians do not have knowledge about the literacy levels of their patients, generally overestimating how much they understand.\(^5\)\(^6\)

As a result, targeting low health literacy requires a two-pronged approach, reaching out to vulnerable populations to increase literacy and educating healthcare providers to recognize and address low literacy.

Health Literacy Fellowship Goals

The Health Literacy Fellowship was initiated to give medical students exposure to populations with low literacy and to develop tools to communicate effectively through participation in:

1. Community Fieldwork
2. Health Policy Seminars and Clinical Site Visits
3. Research

Community Fieldwork – Highbridge Community Life Center

Community fieldwork was an essential part of the Health Literacy Fellowship, which allowed medical students to interact with low literate populations. Medical students worked with teachers at adult education centers to develop lessons that address general and health literacy.

Lessons included:

- How to read and understand a prescription label
- How to read and understand a nutrition label
- How to fill out a patient information form
- How to maintain general health
- Information about health problems like asthma and obesity
- Patient empowerment: questions a patient should ask
- Smoking cessation

This experience entailed many aspects of communicating effectively, including:

- The importance of developing observation skills to identify low literacy. Most people will not share their literacy status with others,\(^7\) and a physician's observations can help him/her to identify low literacy.
- The importance of patient communication with future patients with low literacy.
- The importance of cultural competency and acknowledging patients' points of view.
- Approaching patients in a manner that is neither threatening nor judgmental.
- Using different ways to explain material including pictures and spoken word.
- Using different techniques to assess whether patients understand, like asking them to repeat instructions.

Health Policy Seminars and Clinical Site Visits

Seminars and clinical site visits provided opportunities to:

- Become exposed to the healthcare environment.
- Learn more about the current policies in place to address low literacy.
- Discuss trends in healthcare for vulnerable populations.
- Discuss different ways that future physicians can improve health literacy in the community.

Research – The Influence of Religion and Spirituality on Health Seeking Behavior

Mental health services for children are greatly underevaluated by many minority populations in the United States, especially the Latino population.\(^8\) As the fastest growing population, Latino children are a model population for understanding health disparities amongst minorities.\(^9\)

Barriers to health service utilization for children with mental health needs include:\(^10\)

- Language
- Lack of health insurance
- Low parental education
- Poverty

A study done to assess mental health service utilization amongst Puerto Rican children in Puerto Rico found that 87.9% of children with mental health impairment did not receive services, despite the lack of language barriers.\(^11\) This suggests that there are other factors that play a role in underutilization of mental health services.

One proposed factor is the religious and spiritual beliefs of Latino-American populations. Most Latinos are Catholic Christians, but their practices and spiritual beliefs differ from that of mainstream Catholicism in the United States.\(^12\)

Some beliefs that can effect health-seeking behavior include:\(^13\)

- The belief that psychiatric problems are believed to result from supernatural causes.
- A strong sense of destiny, which engrains the concept of endurance and fatalism—leaving the outcome of the illness up to will of God.

Within the past decade, only a few papers have assessed the role of the primary and religious in understanding mental health services for children.

The researchers used questionnaires with a yes/no answer format given to Latino parents whose children were receiving mental health services.\(^14\) These specific questions found no link between spirituality and service utilization.

Limitations to these studies include:

- Question format only allows parents to respond yes/no to specific questions that might not be relevant to their beliefs.
- Children were already receiving mental health services so understanding how beliefs affect help-seeking and utilization cannot be accurately assessed.

We propose use of a focus group with open-ended questions to assess Latino parents' beliefs about their children's illnesses.

There are several reasons why it is important to determine what beliefs influence parents to access mental health services for their children:

- It can provide healthcare providers with critical insight into the personal views of their patients that can inappropriately affect their health, and improve the physician-patient interaction.
- It can be used to develop targeted outreach and educational services that can increase access to and utilization of services.
- It can decrease the health disparities that exist within the United States.
- It can allow healthcare providers to find ways to adapt their therapies to combine patients' beliefs and modern medicine.

Cultural competency is an important aspect in improving health literacy. Understanding patients' personal beliefs about their illness can allow physicians to better communicate with patients in order to increase their willingness to access and utilize health services, to make appropriate health decisions, and to increase compliance with suggested therapies.

Bibliography

African Hearts: Bringing Medical Care to the Slums of Kampala

“Hands up, not hand-outs.”

Goals of the Project
Short-term: To bring medical care to the street children living in the Kisenyi slum, and to educate the African Hearts leadership in much needed basic medical techniques.
Long-term: To increase attention to the street children of developing countries amongst American medical professionals.

What We Did
We spent many hours with Abdul Lutaaya, founder and director of African Hearts Community Organization, and other leaders in the organization. We discussed the lives of street children, including health problems and the corruption within the Ugandan political system that keeps these children from transcending their status. We visited the Kisenyi slums throughout our summer in Uganda to provide medical care. We learned that many of the children’s injuries were the results of police brutality, a common occurrence in the slums of Kampala. During our visits, we tried to educate these children as to how to utilize their public hospitals to receive whatever free health care they could. The kids were grateful for our medical care, but they were even more thankful that we seemed to care at all. We later learned that one of our most important contributions in the slums was giving the children a glimmer of hope and happiness, even if it was just for a small period of time.

We also discussed Mr. Lutaaya’s hopes for the future of these street children, including the construction of a new school. The African Hearts Community School’s first term began on January 31, 2011, with 160 children registered. African Hearts is planning to take more children off the street and put them in school. The organization has also applied for a Ugandan government mandate to handle both local and international adoptions, so that more children will have an opportunity to be helped.

During our time in Uganda and in the months that have followed, we have begun to raise awareness of African Hearts by keeping a blog of our experiences with them. We hope to bring even more attention to African Hearts by hosting a fundraiser and continuing to raise funds. We have been sharing accounts of our experiences with other NJMS students in the hopes that they will seek out African Hearts and other global initiatives. The developed world’s medical community is in a unique position to truly make a difference to the children who have been unlucky enough to be born into devastating circumstances; we only hope that we can do our part.

In Uganda over 14 million of the country’s 27 million people are below the age of 15; about one-quarter of the population is unable to secure adequate food for all or part of the year; and poverty in the household and the continuing burden of HIV/AIDS is having an increasingly negative impact. The number of children orphaned continues to increase; 13.1% of children under the age of 18 are considered orphans. Uganda has the highest proportion of children orphaned by HIV/AIDS worldwide (estimated at 2.3 million).

More than half of Uganda’s population is under the age of 14, but families often lack the income necessary to send their children to school. Even when children are fortunate enough to go to school initially, they often drop out when caregivers fail to meet other school obligations and requirements. Close to 18% of school-aged children are not enrolled in school and the dropout rate averages 66%. As a consequence, growing numbers of children are struggling to find food and shelter.

The negative effects of a large population of orphans are many: girls resort to commercial sex and early marriages which increase their risk for AIDS and unwanted pregnancy, while boys go onto the streets and too often resort to criminal acts like theft, and adopt behaviors that include drug abuse. Disease runs rampant among these children. 40% of students have malaria at any given time, and over 56,000 children under age 5 die each year from nutrition-related causes. (Save the Children Fund, 2009; Uganda Bureau of Statistics, 2002)

The Need

What We Learned

The smallest action on our parts can make a world of difference to these kids. Not only do they need medical care—many of them have malaria, TB, HIV/AIDS and other devastating diseases from which they may not recover—but they also have been largely forsaken by the world community.

Despite having access to free public healthcare, slum children in Uganda are hesitant to see doctors for fear of not being able to afford medication. They also fear the stigma that comes along with being diagnosed with diseases like HIV/AIDS. It is hard to face the fact that these children have been living in these destitute conditions while we are living comfortably here in America. It is even more difficult to think that they are still there, now, unable to escape the slums. They need our resources, our guidance and our support, and they need to know that there are people out there who are willing to get their hands dirty for them.