Counting Apples as Oranges: Epidemiology and Ethnography in Adolescent Substance Abuse Treatment

Heather Schacht Reisinger

In spite of a history of collaboration between epidemiology and qualitative research, the mix of these two perspectives is not well developed in the substance use field. Part of the reason for the difficult match is that qualitative research often adds issues of context and meaning that complicate the epidemiological data of interest. In the substance use field, epidemiological indicators tend to focus on a single drug, but the context typically involves persons who use multiple illicit and licit substances in a variety of ways that change over time. In this article, the author describes four adolescents in an outpatient substance abuse treatment center to provide context and insight into the lives behind the epidemiological indicators. Studying a site of epidemiological data collection ethnographically is yet another way to build collaboration between epidemiology and qualitative research.

Keywords: *epidemiology; anthropology; ethnography; adolescence; substance abuse treatment*

One of the time-honored issues in discussions of qualitative and quantitative research is what you can count and how you should count it. The problem of counting is derivative of the research context and its relationship, or lack thereof, to practice. What I hope to convey here is how, once purpose is clear, counting can serve useful goals, but the counting needs to be more sensitive to local contingencies than standardized frameworks generally allow. The goal, therefore, is to count

AUTHOR'S NOTE: An earlier version of this article was presented at the Eighth Annual Qualitative Health Research Conference. I would first like to thank all the young people who took time to talk with us and help us understand drug use and treatment from their experiences. I thank them for their patience. In addition, the counselors and staff were incredibly open to helping us learn the ropes, and I am indebted to them for all they did. I also appreciate the help of my colleagues on the ethnographic team, Alejandra Colom and Trevor Bush, as well as Mike Gordon, the project manager for the CSAT grant. Comments from Mike Agar and Bob Battjes were invaluable in moving the article forward. NIDA grant DA10736 and CSAT grant KD1 TI 11874 are gratefully acknowledged. Please direct all correspondence to Heather Schacht Reisinger, Friends Social Research Center, 1040 Park Ave., Suite 103, Baltimore, MD 21201, hreisinger@frisrc.org.

QUALITATIVE HEALTH RESEARCH, Vol. 14 No. 2, February 2004 241-258
DOI: 10.1177/1049732303260670

apples as apples and oranges as oranges by incorporating local knowledge and context.

Elaborating on the issue of counting, I will begin with some background on the research context, the multifaceted relationships between ethnography and epidemiology. Over the past 3½ years, I have been working with Agar on a study of drug trends in the Baltimore metropolitan area. We have focused on the epidemiological question, Why these people in this place at this time? What is assumed in this question is that we are asking about a particular drug. For example, we have worked on case studies with heroin (Agar & Reisinger, 2000, 2002), crack-cocaine (Agar, 2003), and ecstasy (Agar & Reisinger, 2003, in press). Each case focuses on a particular drug, a different population of users, and a historical period in which use of the particular drug appears to increase. Our studies of drug trends add historical, social, economic, and political context to an epidemiological perspective.

Since we began studying drug trends, we have also critiqued numerical representations of drug epidemics (Agar & Reisinger, 1999). Our critique focuses on how numbers are gathered institutionally, the bias toward poor populations because of their reliance on public health institutions, the lagging rather than leading nature of indicators, and the lack of detail about the "world of use" among those behind the trend. On the other hand, we recognize the difficulties of gathering epidemiological indicator data and look at the numerical representations ethnographically. To borrow a quote from Lowie (1920) about culture, we gather the "shreds and patches" of data and look for broad patterns that, when taken together, indicate something is going on.

Integrating context to understand better why epidemics occur and turning a critical eye on numerical representations are two ways an ethnographic approach can be used with epidemiology. Another is to study epidemiologic data collection "at the site." Over the past year, I have been in the interesting position of also studying an adolescent outpatient substance abuse treatment program, Chesapeake Counseling Center,[1] with five clinics in southern Baltimore County. By studying an adolescent treatment program, ethnographers[2] on the project could ask how data are collected as people walk in the door, what led them to treatment—the site of data collection—and, more broadly, what problems they present besides the traditional indicators of primary, secondary, and tertiary drugs of choice. Working in this setting gave me the opportunity to look at adolescent drug trends in a broader context while also studying an intervention for the substance abuse. This type of ethnographic description is a third approach to bringing ethnography to epidemiology, one in which intervention becomes key in epidemiology's role as "the basic science of preventative medicine and public health" (Jekel, Katz, & Elmore, 2001, p. vii).

The thread that emerges in every relationship between epidemiologic and ethnographic approaches is ethnography's openness to surprises and new frameworks of understanding in tension with the prior structures of epidemiological data collection. Ethnographers attempt to understand "what's going on" from multiple perspectives of those involved, whereas epidemiologists bring a systematic structure to the collection of data over time. Epidemiology grounds the possibilities; ethnography stretches them. Working within this tension is essential, as both disciplines seek shared goals of promoting universal health and well-being.

EPIDEMIOLOGY, ETHNOGRAPHY, AND DRUG COMPLICATIONS

Epidemiology is broadly defined as "the study of factors that determine the occurrence and distribution of disease in a population" (Jekel et al., 2001, p. 3). However, epidemiologists' task of defining "disease" has become increasingly difficult since the field rose in prominence in the late 19th century. In this historical moment, epidemiology successfully participated in the Western world's battle against infectious diseases. Social and economic conditions improved. Various microorganisms were identified and causally linked to devastating infectious diseases such as malaria, cholera, and smallpox. Vaccines, medications, and environmental interventions were formulated to combat the diseases. In addition, technological improvements in sewage and waste disposal helped contain diseases. Although debate continues about the extent to which public health played a role in the decline of mortality rates from infectious diseases, its victories gave it stature to continue to lead interventions for the prevention of disease (Agar, 1996; Janes, Stall, & Gifford, 1986; Trostle, 1986; True, 1990).

As social and economic conditions changed and infectious diseases came under control, the industrialized world was making the epidemiologic transition to chronic degenerative diseases (Caldwell, 2001; Omran, 1971; Wilkinson, 1994). With epidemiology's success with infectious diseases, its application was expanded to an ever-broadening definition of disease, including noninfectious chronic diseases (e.g., heart disease, diabetes, cancer), psychological disorders (e.g., anxiety, depression, bipolar disorder), and public health concerns that were difficult to box into any category of disease (e.g., drunk-driving accidents, homicides, suicides).

Drug use is one of the public health concerns that are difficult to define and monitor for a wide range of reasons. The definition of drug addiction, particularly as a disease, is still debated. Drug use itself is seen as a progression from experimentation to social use, misuse, abuse, and dependence-addiction (Bell, 1990); therefore, when do you measure onset from a public health perspective? "Addiction" is separated by drug (e.g., nicotine, alcohol, heroin, cocaine), leading to the tracking of the disease by the particular product of use rather than the disease of addiction itself. Because most drug use is illegal, drug users are considered a "hidden population"; therefore, those in clinical settings are considered only the tip of the iceberg (Anthony, 1999, pp. 47-48). Finally, the health risks of drug use are politically, scientifically, and individually defined. The combination of these perspectives leads to an ambiguous picture of what epidemiologists in the drug field are monitoring and on what institutions to focus their efforts.

Anthropologists and ethnographers have made significant contributions to untangling some of the ambiguities through natural history studies of drug use (Agar, 1973; Bourgois, 1995; Preble & Casey, 1969; Sterk, 1999). They have also worked to bring a broader, contextual understanding to why epidemics occur in several areas of public health (Brown & Whitaker, 1994; Farmer, 2001; Singer, Valentin, Baer, & Jia, 1992). One area that anthropologists have seldom pursued is ethnographic study of epidemiological data collection and intervention sites, such as clinical settings, from an epidemiological–public health frame.

The combination of the two research projects with which I am involved allowed me the opportunity to study an adolescent treatment program while also analyzing adolescent drug use from an epidemiological perspective. In this process, ethnographers asked adolescents about current drug trends, their perceptions of why adolescents use, and how they define problematic drug use. In addition, we observed the adolescents' outpatient group sessions. Using an ethnographic approach with an epidemiological frame allowed the ethnographers to see firsthand how complicated individual lives did or did not map onto the traditional categories of epidemiologic data collection.

Unfortunately, our ethnographic research at a data collection site did not yield a simple solution. We found that many of the adolescents entering the treatment center were not suffering from drug dependency; rather, they presented a variety of problems both drug and non–drug related. As such, the treatment clinics and counselors served many functions besides healing drug addicts. In part, it is because drug addiction affects all facets of a person's life: physiological, psychological, economic, legal, and social. Treatment centers are asked to solve an addiction problem without receiving resources to address the multiple layers of interrelated problems their patients face.

The ethnographers also found the adolescent population to be highly coerced, forced into treatment by juvenile justice and school systems, usually for drug-related offenses. For these institutions, the clinics serve as change-oriented programs even when the adolescent's primary problem is not substance abuse. This not only challenges the substance abuse treatment clinics we studied, it also challenges the epidemiologic use of substance abuse treatment centers as data collection sites.

In this article, I present what we learned from the adolescent clients and their counselors, and from our own observations of the clinics and group sessions. I discuss the conclusions through four cases that typify the adolescents who come through Chesapeake Counseling Center. The cases challenge how we see epidemiologic data obtained from substance abuse treatment centers while opening our eyes to new trends in adolescent substance use and treatment. Studying drug trends in a treatment setting reminds us of epidemiology's broader role of intervention in public health. In the end, ethnographic data expand our understanding and definition of new trends and point to new possibilities in epidemiologic data collection. With the combination of the two, our understanding can be both grounded and stretched as we are challenged to seek a comprehensive picture of adolescent drug use and its accompanying intervention of substance abuse treatment.

RESEARCH AND METHODS

The data used in this article came from the combination of two studies. One study, funded by the Center for Substance Abuse Treatment (CSAT) (KD1 TI 11874; Robert Battjes, PI), was an evaluation of the Chesapeake Counseling Center, an outpatient adolescent treatment program in southern Baltimore County. Although the project was largely quantitative, we added the ethnographic component to understand better the treatment experience from the perspective of the adolescent clients. The second study was a National Institute on Drug Abuse (NIDA) study (DA10736; Michael Agar, PI) on drug trends in the Baltimore metropolitan area. A portion of the drug trend study was to identify and explore emerging drug trends among

adolescents. Over the course of the interviews with adolescents and observing in Chesapeake's five treatment clinics, detailed information about drug trends emerged. Through the NIDA-funded study, the data were analyzed for information on the current state of adolescent substance use trends. Both studies were approved by Friends Research Institute's Institutional Review Board.

Between July 2000 and December 2001, research staff asked all adolescents aged 14 to 18 years who came for an intake at Chesapeake Counseling Center to participate in the study. Those who agreed signed assent, and their legal guardians signed consent. A small number of 18-year-olds signed their own consent. From the quantitative sample (N = 194), 25 adolescents were recruited to participate in four ethnographic interviews over the course of their treatment and after discharge. The ethnographers also observed 70 group sessions at the two clinics with the largest number of clients. Finally, clinic staff were formally and informally interviewed.

All interviews were tape-recorded, transcribed, and entered into Atlas.ti, a text-analysis software program. Field notes from interviews, observations of group therapy sessions, and interactions at the clinical sites were also entered into the database. Texts were then coded for emergent themes. One set of themes had to do with relationships between drug use and adolescent lives, and it is those themes that led to an understanding of some major "types" of youth that entered the program.

CASES

Here, I describe four types of youth we encountered while doing an ethnographic study of the adolescent treatment centers. I built the definitions of these categories based on the central problem in the adolescent's life rather than the "drug of choice." While analyzing the data, I focused on two questions: What were the core problems the adolescents described? and What issues did they discuss in group counseling sessions? The categories reflect patterns in our interviews with the youth and our observations in their group sessions. I also present the story of one adolescent as a prototype for each category, choosing an adolescent whose life most clearly demonstrates the category. It goes without saying that the categories are blurry. Variation exists within the categories, and the youths' lives cross over the defined types. However, the categories provide linguistic tags to begin to talk about the patterns we observed as we interacted with the teenagers and learned about the problems they face.

I have defined four "problem" categories to talk about the youth who enter treatment at the Chesapeake Counseling Center: recreational use, addiction, criminal involvement, and dealing. Before describing these categories in detail, I first want to acknowledge that all teenagers have various life issues with which they must cope as adolescents, ranging from mental health issues to teenage pregnancy. That adolescents bring multiple problems to substance abuse treatment centers is a major theme in adolescent treatment literature, particularly in the assessment of pretreatment variables (Catalano, Hawkins, Wells, Miller, & Brewer, 1990/91; Hsieh, Hoffman, & Hollister, 1998). In addition, I do not have training in the diagnosis of mental disorders, so I cannot comment on "types" of mental health issues adolescents present or the growing trend of disorders that co-occur with substance use disorders (Gilvarry, 2000; Jainchill, 2000; Kaminer & Tarter, 1999; Weinberg, Rahdert, Colliver, & Glantz, 1998). Yet, despite these disclaimers, I found these four

categories to be the most salient in the context we were studying, an outpatient adolescent substance abuse treatment program serving a largely coerced population. Later in the article, I will discuss the possible reasons why these categories are most salient in this context and what the implications are for treatment program design. Finally, the names of the clients and some identifying details have been changed to protect their identity.

Recreational Use

The first category is the one in which the majority of the adolescents fall. Despite general expectations that substance abuse treatment centers treat addiction, many of the young people who come into Chesapeake's program are in the early stages of experimentation, social use, and misuse. They are at Chesapeake because they were caught with drugs—usually marijuana—by law enforcement, school officials, or, less often, parents. The juvenile justice system and schools have incorporated drug abuse treatment into their contingencies for drug-using youth. The youth in this category range from adolescents caught the first time they used to those who use more regularly but can stop when a change in their situation requires it. A few of these youth continue to use while in treatment because they perceive treatment attendance, not abstinence, as their requirement. In other words, abstinence is a treatment program goal, and attending a treatment program is a disciplinary requirement; therefore, some youth in this category believe following treatment rules is not necessary to fulfill their requirement.

I called this category recreational use, because the youth in this category perceive drug use as a social activity to pursue with friends and acquaintances. Some of the recreational users we talked with have begun to experience negative consequences related to drug use but do not have personal experience with higher levels of addiction-dependency. Comparing this category to the traditional stages of progression of drug use, recreational use combines use and misuse to a large extent, and distinguishes them from abuse and dependency-addiction. I chose this dichotomous view, because the personal experiences of the youth divide between drug use in an adolescent's life and drug use taking hold of a life. Although the category recreational use covers a variety of experiences, crossing the line into addiction changes what "makes sense" to them in treatment.

In our sample of 25 ethnographic study participants, almost half (n = 12; 48%) are in this category. Youth in the recreational use category also overlap with other categories—a few sell drugs (dealing) and/or are criminally involved beyond illicit drug use. However, for youth in this category, involvement in dealing or other criminal activities is incidental to their drug use. In addition, some might move into addiction if treatment does not help them.

Kim is an example of an adolescent who falls into the recreational use category. She was required to attend the Chesapeake Counseling Center for drug treatment by the juvenile justice system after being caught with marijuana at school. She was also expelled from her neighborhood school for the same incident and was required to attend an alternative school. Kim has no previous criminal record and has never received substance abuse treatment. She admits to using marijuana twice, a hallucinogen one time, and drinking alcohol a couple of times a year.

She currently lives at home with her parents and siblings. She has a fairly good relationship with her parents but is turned off by their religious zeal. She had a job working at a restaurant throughout treatment. After returning to her home school, Kim was able to graduate early and found a full-time office job within a few months of graduating.

During Kim's first interview, the ethnographer asked her about what she thought about the program. Kim said she was learning things she did not know before and described a video on relapse. After she described the video and its lessons, the ethnographer asked her if she could relate to the session and other things she was learning. Kim responded that she did not believe she had a substance abuse problem, just bad luck, and that her counselor seemed to agree.

> Um . . . Not really. I don't—I didn't have that bad of an addiction using marijuana 'cause I wasn't—that was only my second time trying it, so I just kind of got caught with bad luck. So I don't really put myself in that kind of category. She [counselor] puts me in like "misuse"—I just got caught with it, a bad time. I had it on me at a bad time. So, that's what she puts me at.

Despite using marijuana only twice, she was surrounded by it at school. She discussed this fact in the interview as validation that she did not have a drug problem as well as an explanation for why maintaining abstinence would not be a problem for her once she returned to school.

> *Interviewer:* So, use is very common in your school?
> *Kim:* Mmm, right. All my friends I know, they do it. So when she [counselor] was asking me, do I see it as a problem, when I go back to [neighborhood school], like, not use, and I said no. Even before I tried it I was always around it anyway, I was like, so it's no big issue for me.

Toward the end of this conversation, Kim described problems she saw other youth in her group having, again justifying why she does not believe she has a drug problem. She also adds why she finally tried marijuana.

> *Interviewer:* You feel like you don't have the same problems the other kids have?
> *Kim:* No. It's . . . no, I didn't smoke marijuana everyday. I didn't wake up smoking it, I didn't go to sleep smoking it. I didn't have—it's just that I was curious at the time and curiosity killed the cat and so I got caught.

Despite not feeling like she had a problem, Kim had mixed feelings about counseling. For her, it was both "time and money consuming." In part, she saw it as a requirement of her probation and school, saying, "I'll do what I need to do and get out of counseling." However, she also felt like she could learn something from the experience and that counseling did not have to be focused solely on drugs.

> *Interviewer:* So, what is one thing or do you look forward to something when you go to Chesapeake? You said that it's time consuming and it takes away useful time from you. Is there something that you look forward to?
> *Kim:* Mmm . . . learning. The stuff I'll be learning. Um, meeting different people. Learning their experiences, what they've been through. Um, hopefully growing from my experiences. You know, she [counselor] told me that it's not so much all about drug

> counseling but like if there's different things that are bothering me than I can come to her and talk about 'em. So it's not specifically just about drugs. If I'm feeling bad that day, I can just come to her and talk to her about it so . . . I sort of have like, not like a drug counselor, but like a regular counselor.

Even within the recreational use category, Kim was clearly a low-severity case. Other young people we talked with in this category used marijuana more regularly, but they still did not appear to have reached the stage of addiction. For many in the recreational use category, treatment is about learning that the consequences of drug use are real. They learn the consequences of drug use in counseling and get a glimpse of what is involved in the struggle to overcome addiction. They also find out what it is like to experience the disciplinary actions of the juvenile justice and educational systems.

In observing Chesapeake's adolescent program, it appears that this is the type of adolescent for whom a low-intensity, outpatient program is designed. At Chesapeake, they teach the consequences of drug use and introduce the adolescents to the recovery process through a cognitive-behavioral approach. The tightrope the counselors walk is that it is assumed people in drug abuse treatment programs have a drug addiction. For those who do not—those who fall into this recreational use category—talking with them as if they have an addiction is meaningless. The personal experience and connection so key to recovery is lost.

Addiction

On the other hand, the adolescents in the next category, addiction, fit general expectations about who should be in substance abuse treatment. As adolescents we interview say, addiction is

> [Getting] hooked on it. Can't get enough of it. (15-year-old male)

> Addiction, like, when somebody . . . they need something to get by like everyday . . . just to get by and make their day just right. (17-year-old female)

> Do anything at any given time to get it. (14-year-old male)

In other words, substance abuse treatment is seen as a place to get help with dependency on drugs. As the adolescents state, addiction is when your life revolves around getting high, and drug treatment is designed to remove drugs from the center so you can participate in everyday life. This category resembles the Diagnostic and Statistical Manual of Mental Disorders-fourth edition (DSM-IV) criteria for substance dependence (American Psychiatric Association, 1997). About a quarter (n = 6; 24%) of the ethnographic sample appears to be in this category. They by far have had the most experience with treatment, often moving in and out of different modalities. They tend to use harder drugs in addition to marijuana, such as cocaine, heroin, or pills. They have also experienced relapse firsthand. Many have a higher level of criminal involvement, often related to their drug use, which can force them into treatment. They are at the treatment center because a substance truly has a hold on their lives; therefore, as the recreational users are learning about the process of addiction and recovery, the adolescents suffering from addiction are trying to apply the concepts to their own lives.

Nate is a prototype of this category. When the ethnographer first met Nate, he had recently returned from a residential treatment center. He came to Chesapeake as a requirement of his probation officer. Before coming to Chesapeake, he had entered treatment for substance abuse several times at both inpatient and outpatient programs. During his intake at Chesapeake, he said he most needed treatment for marijuana use. However, he reported using almost every possible drug. After 2½ months at Chesapeake, he tested positive for amphetamines and was sent to a detention center by his probation officer. After being sent to the detention center, he was moved to an inpatient treatment center once again. Following his release from the facility some months later, Nate's probation with the juvenile justice system was reinstated and will continue until he is 21 unless he commits further crimes, at which point he would be transferred to the adult system. Currently, he is living at home and working full-time.

In addition to his extensive drug use history, he reported extensive criminal involvement prior to his admission to Chesapeake, including arrests for vandalism, theft, and distribution, yet his illegal activities appeared secondary to his drug use problem. Dealing and drug use were the only illegal activities he continued to be involved in while at Chesapeake. During the ethnographer's interviews with him, he continually discussed his struggle with drug use. He considered himself to be someone who was fighting addiction, and he drew on his experiences at various treatment facilities to keep him going.

> So my whole—basically what came from this last place . . . was my self-esteem, self-confidence was boosted. I realized how to have fun and be normal without being messed up. And, like, once I realized that it was just, like, cool, it was, like, hey this isn't so bad, you know if I can do this you know, like, it started actually seeming not only possible to be clean but, like, it wouldn't be this horrible, like, you know constant steady, like, struggle. I could actually be, you know, all right. So that kind of, like, boosted my hopes and made me feel, like, I guess a little bit relieved you know that, like, I don't have to be messed to have fun because obviously I'm not going to want to stay clean and do what I'm supposed to do if there's no fun involved and if I can't enjoy myself and be happy. So, like, I got to a point where I felt comfortable with myself, the way I look, like, just who I was. . . . And, like, every once in a while I'd you know I'd remember things that [they] had been preaching about while at [residential program] that even though half the time I didn't really believe them but it was still in my head and I would still think about it and say well maybe it wasn't all bullshit you know maybe I should try to do this. At least you know try to be clean to prove it to myself that I can be moderate about my use.

Nate recognized he had an addiction problem that was a continual struggle for him. However, Chesapeake was not the most helpful place, given his situation. Although he said he got a lot out of his individual sessions, he felt the youth in group counseling had not had the same experiences as he, so it was difficult to share with and learn from them.

> Even for me sometimes with the people that were around me, um, I wouldn't—you know when I would share in group I wouldn't focus as much on my addiction because you know I can talk about my addiction. I can talk about using heroin. I can talk about an overdose. I can talk about you know getting strung out, off on pills and what not. [*I:* Uh-huh.] You know and they would look at me like I was crazy. You know what I mean and they didn't understand that, um, somebody could actually have a drug problem. It was actually a problem. At least they didn't admit that they

> understood you know that concept that to some of the people in that group was kinda you know, how? They didn't understand it, or act like they did. So I wouldn't . . . I guess I would kinda cater to their—you know, to them a little bit and I would—you know, I'd still talk about the problems that I had but I just wouldn't, you know, go on the drug part of it. [*I:* Uh-huh.] Or use the word addiction as much. [*I:* Uh-huh.] And you know that I'm sure in some ways you know was hurting me because I wasn't, you know, completely being honest. I wasn't lying but I wasn't, you know, coming out all the way with, you know, how I really felt or what I was really thinking. And I don't think I'm the only one that you know, does that. Maybe but . . .

Despite the fact that we were studying a drug treatment center, many of those most seriously affected by drugs, like Nate, did not feel comfortable in the setting. However, in an epidemiologic trend study, these are the youth who should be counted as having the "disease" of addiction, yet those in the recreational and addiction categories will both appear in the numbers of adolescents entering treatment for "drug problems." The challenge, of course, is that I am an ethnographer, not a therapist, and therapists will tell you denial is a major part of addiction. People with an addiction will say that drugs are not causing problems in their lives to avoid confrontation. Also, the line between recreational use and addiction is not as distinct as we would like it to be.

The lesson for epidemiologists is that treatment numbers do not always represent the disease of addiction, however it is defined. The lesson for therapists is the importance of how an adolescent perceives his or her use. Whether an adolescent is addicted and ready to move past denial or not, he or she relates to others' experiences based on how he or she sees his or her own use.

It will continue to be a challenge to distinguish the recreational using adolescents from the youth who are addicted; however, a difference clearly exists when you talk with youth living the experience of treatment, and each category calls for different needs to be met and different types of interventions. A personal connection gained while discussing your guilt from relapsing yet again is very different from discussing your anger about being on probation. A youth in the addiction category can relate to both, but an adolescent in the recreational use category cannot understand why the "junkie" doesn't just quit.

Criminally Involved

A third category of youth who present different needs is the criminally involved. The category of criminal involvement is difficult to define. The adolescents in this category often fall into the recreational use category, but some border on addiction. However, they are more involved in criminal activities than youth in either of the two preceding categories—a "criminal mentality" as one adolescent in this category described it. This "mentality" adds a layer of issues the program must address, given its goal to create behavior change among the adolescents. Although all adolescents in the treatment program are criminally involved at some level because of their illicit drug use, the youth in this category commit higher levels of crime, primarily property crimes and theft. In addition, they tend to exhibit more violent behavior and have a greater number of assault charges. One fifth ($n = 5$; 20%) of the ethnographic sample was in the criminally involved category.

Although selling drugs is a type of criminal activity, individuals who have primarily engaged in dealing tend to face different issues than those who engage in

other criminal activity. For example, the youth in the criminally involved category have used a wider variety of drugs compared with those in the dealing category. Therefore, dealers will be addressed as a separate category, following discussion of criminally involved youth, so that issues more specific to each can be addressed.

Ethan was 17 years old when we first interviewed him. His exploits had finally caught up with him, and he entered Chesapeake to avoid detention resulting from a marijuana charge. We kept in contact with him periodically over a 1½-year time span. During that time, we met with him at two inpatient treatment facilities after he left Chesapeake. He reported that he had been placed in a detention center after repeated positive urine screens at Chesapeake. Before his continual movement through the state's adolescent treatment programs, Ethan was highly criminally involved. At the age of 13, he was charged with arson. As his criminal history progressed, he was also charged with stealing personal property, destruction of property, breaking and entering, vandalism, trespassing, and a marijuana charge. He also has a history of violent behavior.

During his intake at Chesapeake, he reported his primary drug of choice was marijuana. In addition, he had used tobacco; alcohol, although it is his least favorite high; pills; and mushrooms. However, throughout our interviews with him, he continued to say that he had the capacity to avoid using on his own and he was only in treatment to avoid being "locked up." As he said, "I was just going 'cause I had to, basically for my probation."

For Ethan, going to treatment was a way of avoiding the juvenile justice system. Later, at an inpatient substance abuse treatment center, he talked about treatment as something that was not for him but, rather, for someone with a "real" drug problem.

> *Interviewer:* What if your counseling doesn't work? . . .
> *Ethan:* It really don't matter what the counseling thing is like, I'm still going to stop regardless. Being locked up that gave me enough time to get clean and get the drugs out of my system. So that basically was enough for me. I don't really think I need to be here. They should put like a heroin addict or somebody else in here that really needs this program.

Residential treatment programs were places Ethan could go to avoid detention centers. While at Chesapeake, he said he was going because of probation, but he did not realize his repeated positive urine screens could land him in jail. Being in residential programs allowed him to stay clean and off the streets, making compliance with probation easier for him. The question is whether drugs were the central problem. The larger issue in his life history was his continual and escalating criminal involvement. Chesapeake, a low-intensity outpatient program, did not help him stay out of trouble. Could a program that focused on criminal and violent behavior have been more helpful? Would it have made more sense to him, as working on drug addiction did not? On the other hand, it is possible that he was denying his need for drug abuse treatment; yet if this was the case, treatment was not successful at helping him work through his denial.

Although the drug treatment programs were not what he perceived he needed, Ethan did benefit from the experience. He had dropped out of school, and when the ethnographer first interviewed him, he had no interest in completing high school or getting his General Educational Development (GED) program. However, he eventually passed his GED exam. He and his father were also trying to make amends.

Last the ethnographer talked with him, he was moving out of the area and living with his mother. In short, Ethan's case demonstrates that despite the imperfect fit, participating in a drug treatment program can have a positive impact on the individual. However, this might not be the most appropriate type of treatment. Additional challenges are the burden this places on the treatment programs, the counselors, and other clients who have different needs.

Dealing

Dealing is another category that is problematic to define. First, as mentioned before, dealing is a type of criminal involvement, and many adolescents who enter Chesapeake also sell drugs at some level. Forty-six percent say they have ever sold, distributed, or made illegal drugs, but much of this relates to buying and selling among friends rather than engaging in drug distribution for profit. The smaller percentage of youth ($n = 2$; 8%) whom we would place in the dealing category sell and distribute drugs on a more regular basis, rely on dealing for their income, and appear less likely to stop dealing. Their lives revolve around drugs, because drugs are their means of making money. In group-counseling sessions, youth in the dealing category discuss concerns that are very different from those of other adolescents. For example, they experience more incidents with the police, more episodes of violence, and struggle with the loss of disposable income. Besides their criminal involvement as dealers, other crimes such as assault and theft also tend to accompany their arrest records. As we talked with youth, it was clear that some claimed to have a drug problem, so the juvenile justice arbitrator would send them to drug treatment rather than detention.

In group-counseling sessions that the ethnographers observed, the dealers were a distraction to other youth in the group and romanticized a drug-dealing life. They did not appear to have a problem stopping their drug use, if they were using at all. Therefore, as with many criminally involved youth, they tended to fall into the recreational category for their use of alcohol and marijuana, but their involvement with dealing added complex layers of problems that the counselors attempted to help them address.

Troy came in for his intake at Chesapeake after being referred by the juvenile justice system. He was on probation for cocaine distribution charges, but his most recent charge was a violation of his probation. He had been arrested numerous times for crimes such as motor vehicle theft, robbery, assault, and possession or distribution. Despite reporting not using alcohol or marijuana for more than a year, he told the court that he had a drug problem so that he could attend a treatment program rather than be locked up in a detention center.

Interviewer: All right. First tell me—we went over this a little bit yesterday—walk me through again how you ended up at Chesapeake?

Troy: Um, I had some previous charges. I got locked up with some drugs on me. I told the judge I was using drugs, so they say you gonna have to do some drug counseling outside of being locked up [. . . discussion of moving out of lock up to probation].

Interviewer: Okay then why did you tell—do you really have a drug problem?

Troy: No.

Interviewer: So why did you tell them that you had a drug problem?

Troy: So I could get in rehab. Like, I had—I was on probation, I was facing a violation of probation and I was facing, um, and I was facing something else. And, um, then I figured, hey, I could do this and probably go to a 60-day rehab where I sit in groups and still have a nice little bed to go into and a little bit of freedom; instead, if I get locked up, hey, I get locked up and I don't. Most times, judges, if you have drug problems, they'll put you to 90, 60 or 30 days in a rehab and let you come home in a program such as Chesapeake without doing time being locked up.

Although he still ended up in detention, he did not receive drug counseling while at the detention center. At the same time, the fact that he had reported a drug problem to the judge remained in his record, and drug counseling became a requirement of his probation. However, Troy repeatedly told his counselor, and the ethnographer, that drug treatment was not giving him what he needed. Rather, he needed more help resisting the temptation to deal drugs.

Interviewer: Okay. So tell me how you like Chesapeake? What do you think of it?
Troy: I don't like it too much 'cause I don't see myself as with a problem. I see myself with other problems that they don't address.
Interviewer: Like what?
Troy: Like temptation problems to sell drugs. [*I:* Uh-huh.] Some people in there like, some of the people in there—I ain't gonna name any names—but you know, I see—you know, they got . . . I had a temptation to sell drugs just as much as they had a temptation to use drugs. You know, like that. . . . My urge is not to use drugs 'cause I don't like to use drugs. I drink every now and then but urges aren't like to use drugs. My urge is like to sell drugs. That what interest me: the money.

Despite believing drug counseling did nothing for him, he attended group sessions at Chesapeake for more than 6 months. He was trying to stay focused on ending his probation and was an active participant in the groups. The difficulty was that he romanticized the dealing life in group by talking about everything he did not want to give up. At the same time, he was staying away from dealing and was working on getting a part-time job.

The one thing at Chesapeake that Troy said helped him and got him thinking was a goals session. In the exercise, they were asked to talk about things that were most important to them and then rank them. Money was one of the top priorities for Troy, but getting a job was at the bottom of the list. The counselor had an interesting discussion with Troy about whether he was serious about quitting dealing if getting a job was not higher on his priority list, especially if money was so important to him. Before the ethnographer specifically asked him about what sessions he found most helpful, Troy described what he had learned in a more abstract way.

Interviewer: How about you? Did Chesapeake help you turn yourself around? I mean, you don't have a drug problem but you're getting a job, you seem to be pretty motivated about not hurting the people around you, there've been some changes in you.
Troy: Chesapeake helped me in a way. I'm saying, in a slight way but you know it did some justice for me. Some more than others, some less than others. [*I:* Uh-huh.] You know, but it helped me, you know, I'm saying it teach me—one thing I could say it teach me, it's a commitment and regardless whether—a commitment is a commitment. You can't make two commitments the same time, the same place the same day, you know, the same hour cause you can't do both. You know, you got to put your

> priorities ahead of you. You know you gotta really think what's important to you. What do you want? First you gotta think about what's important to you and the things you have to do—whether somebody else committed you to 'em—the courts, probation officer—after you get that through then you can make your own commitments. You know what I'm say, the things you committed yourself to doing. If it's school, work, in a job, you know what I'm saying, you make sure you there.

Then, when the interviewer specifically asked him about his favorite session, Troy talked about the priorities session.

> *Interviewer:* Okay. Now think about all the sessions. What has been the best session do you think? If any?
> *Troy:* The one last week. . . . 'Cause it made me look at priorities. I did a lot of thinking on my priorities after that group. You know, I think that was the one that, you know like she [counselor] said we . . . wanted to lay some of the things out on the line. And since I've been there that's the first time we did that. You know I've been there, you know what I'm saying, a pretty while now. I think they could do that at least, if not two times a month, at least once. [*I:* Yeah.] Cause that was the group I've been waiting for, you know. I need more groups like that. Some of the other people need, like, the dude in there that got popped the first time he was smoking, that group is not his thing.

The group on priorities got Troy thinking about where he was at, yet he continued to struggle with the desire to deal and make an exceptional amount of money in a short amount of time. Money allowed him to do the things he wanted, and dealing gave him that access.

> So, it wasn't really exciting for me. Some people it was excitement, you know, just to have that touch of money but it wasn't, you know, for me it was just doing things after selling drugs, which is doing things that I like to do. Go out to eat. Go out to nice places: Cheesecake Factory, Ruth's Chris. I ain't never been there but that's like a la carte place. Cost like seventy-five dollars a plate. [*I:* Uh-huh.] I planned on going there and going bowling, going, you know, when it get hot, going to the amusement parks, you know. [*I:* Yeah.] So it was just doing things I like to do but I had no other source of the money. And my other source of the money wouldn't—it would get me those things but it would take time. And you know, I had to learn to deal with my patience level like, you know, I gotta do this, I gotta stay focused on it. If I really want to get it without going through the legal system.

Troy knew what he needed to do, but it was a struggle for him, and a drug treatment program did not help him with those issues for the most part. The challenge is that he told the court system he had a drug problem in an effort to receive leniency. Maybe that is why he was able to bide his time for so long despite not getting the help that he needed. In our last interview with him, he said it was hard for him to stop dealing, but that he was going to stay away from it.

> *Interviewer:* Shit. So no going back, huh?
> *Troy:* No . . . you know, I struggle with it a lot. A lot more than people think. [*I:* Uh-huh.] 'Cause I was offered, you know, offered, I'm saying to buy some drugs the other day. Not too long ago. You know what I'm saying?

However, Troy did land in jail again. After he was released, we were unable to contact him for another interview, because his family and friends did not know where

he was. We do not know what happened to him. We do know that he did not stay "focused" on what he knew he needed to do and had not found the help to enable him to do so.

IMPLICATIONS

Epidemiology is the science of public health, and one of its roles is to inform the public of the extent of health concerns and how to combat them. In the drug abuse field, the focus of public concern has been on individual drugs. I examined an epidemiologic data collection site—a low-intensity, outpatient drug abuse treatment program—to understand better how an epidemiologic or numerical representation of drug use trends fits with an ethnographic or qualitative representation. I wanted to explore other ways of studying drug use trends besides the rise and fall of specific drugs of abuse.

Looking at the context of drug use, many of the youth are in the beginning stages of use and experimentation, whereas others are struggling with addiction. For those in the recreational use category, they might gain from being in the treatment setting by learning from the experiences of other youth. They see where further drug use can lead and learn to recognize their own behaviors as leading to addiction. In addition, if they have a positive experience in treatment, it is a place to which they can subsequently turn if they find themselves in need of help. However, for youth already struggling with addiction, they can feel out of place at a low-intensity, outpatient program. Part of group therapy is to learn and draw from the experiences of others in the group. Many of the adolescents with addiction did not feel other adolescents in the group understood where they were coming from or felt that they were looked down on for not having enough willpower to just stop using.

On the other hand, the central problem for some adolescents was not drug use, despite their being in a drug treatment center. For those more involved in crime and dealing, they learn from their network of acquaintances, or even their lawyers, to claim a drug problem to receive more lenience. However, the leniency often means a requirement to enter a treatment program. Therefore, you have a situation in which youth have problems they need to address but that treatment centers are not equipped to handle.

What is especially disconcerting about this situation is that coerced treatment is on the rise for adolescents in the United States. Between 1993 and 1999, the number of adolescents aged 12 to 17 admitted into drug treatment centers increased by 46% (Office of Applied Studies, 2001, p. 1). During the same period, the number of youth referred to treatment by the juvenile justice system increased 71% for males and 83% for females (p. 2). These numbers are driven by marijuana-related admissions. Because youth in all four categories we discussed used marijuana, this trend might be driving an increase in all four types of adolescents we saw in the treatment program. The Drug and Alcohol Services Information System (DASIS) Report suggests that several factors might be involved, "including increased use of marijuana, increased resources for treatment of youth marijuana use, and increased referral to treatment instead of jail for marijuana-related offences" (p. 3).

Referring adolescents to drug treatment centers rather than sending them to detention centers might be a positive move, as the clients receive more counseling, gain positive, adult-guided peer interaction, remain in their communities, and can

attend school. However, looking at the trend in the context of one of the treatment centers, we need to pay closer attention to the needs of the adolescents. In other words, what do these "increased resources for treatment of youth marijuana use" look like? Are youth in need of early intervention, or are they addicted, or are they more criminally involved, or are they primarily dealers? Much of the burden of serving a diverse clientele is being placed on the treatment centers. At the centers we studied in Baltimore County, they are doing what they can to serve all of their clients, but resources are not sufficient to tailor treatment to the individual needs of such a diverse client population. In the words of the adolescents, treatment does not always offer what they need. With this trend of increased reliance on coerced treatment for adolescents, we must ask what the implications are for the services and resources expected to meet this changing trend.

CONCLUSION

This ethnographic study of an epidemiologic data collection site reveals an interesting picture of the lived experience of drug trends. At the most basic level, researchers monitoring drug trends often use data from treatment centers to track the incidence of drug use and addiction. Studying an adolescent treatment population in context demonstrates the challenges of studying the distribution of the disease of addiction. It asks the question Whom should we be counting when we study drug trends? The question is particularly important when an increasing number of adolescents are forced into treatment programs by the juvenile justice system. At the same time, the details of ethnography will always challenge the broad brushstrokes of enumerated categories, just as statistical generalizations will challenge ethnographers to ask what is going on in a larger population.

For me, the lesson learned from this experiment was not about a critical assessment of whether numerical trends truly reveal lived experience. Instead, it was about using an epidemiologic framework to push our thinking. Monitoring drug use and addiction epidemiologically will always be a challenge, because illicit drugs sit at a crime–public health nexus, addiction is psychologically rather than biologically diagnosed, and blame and responsibility are decided in a political arena. However, an ethnographic epidemiology enables us to also explore current trends public health institutions face, not only "diseases" of populations.

One epidemiological trend is that the number of adolescents in treatment is increasing, and this increase is being driven by marijuana users referred by the juvenile justice system. This trend has implications for the treatment centers absorbing and "profiting" from this trend. Ethnographic data reveal the impact of this trend and what those implications might be. By requiring marijuana-using adolescents to attend treatment programs, the juvenile justice system might be increasing the diversity of problems the therapists are trying to help the adolescents resolve. Without a doubt, this places a greater burden on a counselor who has three recreational-use adolescents, one youth struggling with addiction, and a dealer in his or her counseling group. The reality is that every individual brings a host of issues to any group. Multicultural counseling focuses on the same theme. How are African American clients different from Native American? Should counseling groups be divided by gender? With a scarce number of resources, it is difficult to discern how they might be divided effectively. However, as patterns of problems become more

salient, the challenges they bring are more present, and the challenges this variety brings to adolescent treatment programs are very present.

At the same time, treatment centers can become holding places rather than places of change. The tension was obvious in the four cases we presented. The youth did not feel the treatment center was always addressing their true problems, but they recognized benefits, and some even made life changes. The challenge is finding ways to help counselors address the diverse set of issues adolescents bring with them but also to ask if treatment programs are always the best place to refer all drug-involved youth. There might be an increase in treatment resources for marijuana-using adolescents, but are they the right resources for all youth?

Ethnographic epidemiology is about exploring new questions and being open to new patterns. Ethnography with larger scale epidemiology provides a synergy for understanding the lived experience of trends and their patterns among individuals. Studying an epidemiologic data collection site with an ethnographic eye is one such context that opens the possibility of seeing emerging trends. The challenge is that the emerging trends might not tell about specific drug use patterns. Instead, they might force us to ask new questions, challenge old frameworks of counting, or point to new directions for public health resources. Perhaps the next experiment is to ask whether drug dealers are showing up in increased numbers in adolescent treatment programs or to compare treatment trends with and without coerced clients. The options are endless, but we need to find—and then ask—the right questions to count apples as apples and direct our limited public health resources in ways that will truly promote health and well-being.

NOTES

1. The name of the counseling center has been changed for reasons of confidentiality.

2. Three ethnographers worked on the project. Trevor Bush left after the first year to attend medical school, and Alejandra Colom then joined the project. I was the ethnographic project manager throughout the study.

REFERENCES

Agar, M. H. (1973). *Rippin' and runnin'*. New York: Academic Press.

Agar, M. H. (1996). Recasting the "ethno" in "epidemiology". *Medical Anthropology*, *16*, 391-403.

Agar, M. H. (2003). The story of crack: Towards a theory of illicit drug trends. *Addiction Research and Theory*, *11*(1), 3-29.

Agar, M. H., & Reisinger, H. S. (1999). Numbers and trends: Heroin indicators and what they represent. *Human Organization*, *58*(4), 365-374.

Agar, M. H., & Reisinger, H. S. (2000). Explaining drug use trends: Suburban heroin use in Baltimore County. In A. Springer & A. Uhl (Eds.), *Illicit drugs: Patterns of use—Patterns of response* (pp. 143-165). Innsbruck, Austria: STUDIENVerlag.

Agar, M. H., & Reisinger, H. S. (2002). A heroin epidemic at the intersection of histories: The 1960s epidemic among African Americans in Baltimore. *Medical Anthropology*, *21*, 115-156.

Agar, M. H., & Reisinger, H. S. (2003). Going for global: The case of ecstasy. *Human Organization*, *62*(1), 1-11.

Agar, M. H., & Reisinger, H. S. (in press). Ecstasy: Commodity or disease?

American Psychiatric Association. (1997). *Diagnostic and statistical manual of mental disorders* (4th, rev. ed.). Washington, DC: American Psychiatric Association.

Anthony, J. C. (1999). Epidemiology of drug dependence. In M. Galanter & H. Kleber (Eds.), *Textbook of substance abuse treatment* (pp. 47-58). Washington, DC: American Psychiatric Press.
Bell, T. (1990). *Preventing adolescent relapse*. Independence, MO: Herald/House Independent Press.
Bourgois, P. (1995). *In search of respect: Selling crack in el barrio*. New York: Cambridge University Press.
Brown, P. J., & Whitaker, E. (1994). Health implications of modern agricultural transformations: Malaria and pellagra in Italy. *Human Organization*, *53*(4), 346-351.
Caldwell, J. C. (2001). Population health in transition. *Bulletin of the World Health Organization*, *79*(2), 159-160.
Catalano, R. F., Hawkins, J. D., Wells, E. A., Miller, J., & Brewer, D. (1990/91). Evaluation of the effectiveness of adolescent drug abuse treatment, assessment of risks for relapse, and promising approaches for relapse prevention. *International Journal of the Addictions*, *25*, 1085-1140.
Farmer, P. (2001). *Infections and inequalities*. Berkeley: University of California Press.
Gilvarry, E. (2000). Substance abuse in young people. *Journal of Child Psychology and Psychiatry*, *41*(1), 55-80.
Hsieh, S., Hoffman, N. G., & Hollister, C. D. (1998). The relationship between pre-, during-, and post-treatment factors, and adolescent substance abuse behaviors. *Addictive Behaviors*, *23*(4), 477-488.
Jainchill, N. (2000). Substance dependency treatment for adolescents: Practice and research. *Substance Use and Misuse*, *35*(12-14), 2031-2060.
Janes, C. R., Stall, R., & Gifford, S. M. (Eds.). (1986). *Anthropology and epidemiology*. Boston: Reidel.
Jekel, J. F., Katz, D. L., & Elmore, J. G. (2001). *Epidemiology, biostatistics, and preventative medicine* (2nd ed.). Philadelphia: W. B. Saunders.
Kaminer, Y., & Tarter, R. E. (1999). Adolescent substance abuse. In M. Galanter & H. D. Kleber (Eds.), *Textbook of substance abuse treatment* (2nd ed., pp. 465-474). Washington, DC: American Psychiatric Press.
Lowie, R. H. (1920). *Primitive society*. New York: Boni & Liveright.
Office of Applied Studies, S.A.M.H.S.A. (2001). *Coerced Treatment among Youths: 1993 to 1998, The DASIS Report*. Retrieved October 20, 2003, from http://www.samhsa.gov/oas/2K1/coercedTX/coercedTX.pdf
Omran, A. (1971). The epidemiologic transition: A theory of the epidemiology of population change. *Milbank Memorial Fund Quarterly*, *49*(4), 509-538.
Preble, E., & Casey, J. J. (1969). Taking care of business: The heroin user's life on the street. *International Journal of the Addictions*, *4*(1), 1-24.
Singer, M., Valentin, F., Baer, H., & Jia, Z. (1992). Why does Juan Garcia have a drinking problem? *Medical Anthropology*, *14*(1), 77-108.
Sterk, C. E. (1999). *Fast lives: Women who use crack cocaine*. Philadelphia: Temple University Press.
Trostle, J. A. (1986). Anthropology and epidemiology in the twentieth century. In C. R. Janes, R. Stall, & S. M. Gifford (Eds.), *Anthropology and epidemiology* (pp. 59-94). Boston: Reidel.
True, W. R. (1990). Epidemiology and medical anthropology. In T. M. Johnson & C. F. Sargent (Eds.), *Medical anthropology: A handbook of theory and method* (pp. 298-318). New York: Greenwood.
Weinberg, N., Rahdert, E. R., Colliver, J. D., & Glantz, M. D. (1998). Adolescent substance abuse: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, *37*(3), 252-261.
Wilkinson, R. G. (1994). The epidemiological transition: From material scarcity to social disadvantage? *Daedalus*, *123*(4), 61-77.

Heather Schacht Reisinger, M.A.A., is a research associate at Friends Research Institute, Social Research Center, Baltimore, Maryland.