

Evidence Based Medicine and the Construction of Moral Agency in Ukraine

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Abstract: This article explores the ways public health professionals working in Ukraine's HIV-prevention sphere have adopted practices and ideologies of evidence-based medicine (EBM). Public health research concerning HIV in Ukraine remains piecemeal, owing to financial and practical limitations in this region. Despite this, public health professionals remain beholden to international donors (such as USAID and The Global Fund) to adopt EBM as a fundamental standard of practice in internationally funded programs. Through ethnographic evidence collected via interviews and participant observation among various public health professionals in Ukraine, this article outlines two major features of EBM as a discourse in this context. First, many public health professionals in Ukraine frame the validity and reliability of statistical data, the 'evidence' of EBM, not just practically or quantitatively, but also discursively and symbolically, creating or denying evidentiary crises in the production of statistical data according to their own values and purposes. Second, the production of evidence has become an act of tangible social and political value, as much as it is of 'scientific' and practical value. By producing evidence, public health professionals are not only developing the tools to improve their public health efforts, but they are also presenting themselves as morally appropriate and deserving. Through these actions, Ukrainian public health professionals seek legitimacy in the eyes of powerful international actors and claim new forms of morally charged agency within a public health structure that renders them financially and logistically constrained.

Key words: evidence-based medicine, global health, international development, production of knowledge, drug addiction, Ukraine

«Если не было статистики, мы бы даже не подозревали о том, как хорошо мы работаем.»

Служебный Роман (реж. Э. А. Рязанов, 1978)

“If there were no statistics, we would not even have any idea of how well we work.”

Office Romance (dir. E. A. Ryazanov, 1978)

Introduction

Evidence based medicine (EBM) has become a central ideological concept in the practice of medicine in the last two decades.¹ The Cochrane Collaboration, which has been referred to as “the best single resource for methodologic research and for developing the science of meta-epidemiology” (Grimshaw 2004), hails EBM as a “long overdue and dramatic evolution” in modern healthcare, one in which clinical expertise and patient values are informed by scientifically rigorous external evidence (The Cochrane Collaboration 2012). EBM has also been adopted as the “gold standard” of medical decision-making by the WHO (World Health Organization 2012) and adopted as a major component of the work of The Global Fund to Fight Tuberculosis, HIV, and Malaria (The Global Fund 2012). Perhaps the most frequently cited definition of EBM states that it is “the conscientious, explicit, and conscious use of current best evidence in making decisions about the care of individual patients” (Sackett, et al. 1996: 71). In other words, EBM is motivated by the goal of letting external, scientifically rigorous, medical evidence take precedence in making both policy and clinical decisions.

In this article, I explore how public health professionals in Ukraine’s HIV-prevention sphere have adopted the practices and ideologies of EBM. The current state of epidemiological and prevention research on HIV in Ukraine (the evidentiary backbone of truly evidence-based public health practice) is improving, but remains limited in a number of strategically significant ways. Despite this, public health professionals remain beholden to international donors (such as USAID and The Global Fund) to adopt EBM as a fundamental standard of practice in the programs they fund. Through ethnographic evidence, collected via interviews and participant observation among the people managing Ukraine’s HIV-prevention efforts, I aim to demonstrate how these public health professionals are shaping EBM as a *discourse*, motivated in large part by the logistical and practical realities in Ukraine that hinder EBM as a *practice*.

The practice of EBM in Ukraine is, first and foremost, defined by the need to interpret and manage the reliability of external evidence (statistics, epidemiological data, etc.). I do not simply mean the quality of data must be evaluated—this

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is true of *any* quantitative data source or analysis. Rather, I argue that the validity of evidence is something that is “discursively managed” (Carr 2011: 68) by professionals in Ukraine’s HIV-prevention sphere. Evidence abounds that the ease with which objective knowledge can be manipulated for moral, personal, or political ends (and the frequency with which it is manipulated) was well known to the average citizen of Soviet and post-Soviet regions (Field 1953; Verdery 1999; Petryna 2002; Ninetto 2005; Rivkin-Fish 2005; Patico 2008; Phillips 2008). Similarly, my informants revealed themselves to be poignantly aware of how flexible and manipulable statistics can be. Every epidemiological record, survey, or artifact was viewed, at the very least, as requiring some sort of qualification or interpretation in order to be read clearly. Thus, I make the claim that, in Ukraine, the meaning and the gravity of statistical evidence can be shaped by persons familiar with tactics of data manipulation and knowledgeable in the language of EBM in order to meet their own desired ends, whatever they may be.

Additionally, EBM’s imperative that Ukrainian public health professionals measure outcomes, keep records, and produce evidence with which to support evidence-based practices has gained traction as an end in and of itself. While there is still most certainly a clear and rational purpose to the production of evidence, evidence, itself, has become a commodity. It is often seen as a necessary ‘work product,’ a by-product of a properly functioning entity following the tenets of EBM. By maintaining these practices, public health professionals position themselves as authoritative experts in their field, claiming significant political currency both within Ukraine and in the eyes of the international entities who control the financial weight of Ukraine’s public health interventions. In this way, Ukrainian public health professionals are able to claim agency by strategically situating themselves as “socially and morally appropriate persons” (Zigon 2008: 90) within the larger structure of public health entities and international organizations guided by the ideology of EBM. This can be interpreted as a discursive strategy that Carr (2011: 153) has called “anticipatory interpellation,” the act of adopting an established social role and imploring powerful others to address you as such.

Much of this analysis has been inspired by works presented at the first Health in Transition Conference, hosted by Charles University in Prague in June, 2011. The anthropological research presented at this conference focused in large part on the heteroglossic systems of meaning in biomedical cultures present in Central and Eastern Europe. For many decades, medical anthropologists have characterized biomedicine as a productive cultural system—or a collection of productive cultural systems—that generates knowledge and subjectivities within its quasi-hegemonic discourses (c.f. Navarro 1975; Frankenberg 1980; Lupton 1995; Rhodes 1996; Bourgois 2000). According to scholarship that emerged from the Prague conference, concepts such as health, illness, diagnosis, treatment, medical authority, and

medical knowledge are not cultural or scientific monoliths but, instead, have proven to be negotiable, re-definable, and co-optable. Anthropological scholarship on post-Soviet Europe has long delighted in focusing on societies ‘in transition’, on the simultaneous reordering of culture and restructuring of society that is deemed unique to this part of the world (cf. Verdery 1996; Humphrey 2002; Dunn 2004; Lindquist 2006; Patico 2008). Work presented at the conference began to diverge from this trend by highlighting ways in which the dominance of western biomedicine contributes to meaning-making in the face of new global forces and to the *re-rendering of medical paradigms* in order to provide coherency and agency that complements pre-existing social forms and structures—rather than the other way around.

The argument I make here hinges on a particular kind of quandary: namely, the co-occurrence of powerful, homogenizing global forces and tenacious local paradigms that contradict those global forces. I argue that Ukrainian public health professionals are treating EBM in a locally meaningful way as part of their strategy for integrating themselves into those global systems. For many Eastern European public health organizations, the adoption of Western scientific and biomedical approaches to public health, a realm in which EBM dominates, is seen as an integral step in becoming ‘part of the international community.’ It can also provide meaning, agency, and coherency in the midst of Ukraine’s current political and economic troubles in ways that are both social and scientific, both medical and moral. Indeed, this work of generating coherency and re-valuing the discourse of EBM is at the very heart of the politics of HIV-prevention in Ukraine.

Current state of evidence on HIV and drug use in Ukraine

In Ukraine, the spread of HIV poses particularly significant threats to public health. It also significantly overlaps with a second epidemic: injection drug use (International HIV/AIDS Alliance in Ukraine 2011a). An astonishingly high rate of HIV-infection has been detected among IV drug users in Ukraine (national estimates from 2009 indicate a 22.9% HIV-prevalence among IDUs; Ministry of Health of Ukraine 2010). Even more daunting is the growing body of evidence that the HIV and TB epidemics in Ukraine are rapidly merging (Drobniewski, et al. 2005; van der Werf, et al. 2005; van der Werf, et al. 2006; Zignol, et al. 2008). The best surveillance and standardized testing for HIV occurs among pregnant women receiving antenatal care. It is assumed that the HIV-prevalence in this population (varying between 0.55% and 0.47% from 2007 to 2011) reflects the prevalence in the general population (UNAIDS 2012a). Unfortunately, this number is affected by the fact that the populations most at risk for HIV (injection drug users and commercial sex workers) are the least likely to receive anti-natal care (Open Society Institute 2009).

Most scientific research on the HIV and injection drug use epidemics has been carried out in the Eastern, Southern, and Central regions of Ukraine, limited primarily to the towns of Kyiv, Donetsk, Dnipropetrovsk, Odesa, and Mykolaiv (Booth, et al. 2004; van der Werf, et al. 2005; Booth, et al. 2006; Booth, et al. 2007; Booth, et al. 2009; Chintalova-Dallas, et al. 2009; Mimiaga, et al. 2010; Robbins, et al. 2010; Booth, et al. 2011). The vast majority of this literature (Booth, et al. 2004; Booth, et al. 2006; Booth, et al. 2007; Booth, et al. 2009; Booth, et al. 2011) is based on research collected only in Odesa, Kyiv, and Donetsk between 2004 and 2006. These efforts have generated information that is necessary to know, but is not encouraging. For instance, HIV prevalence among drug injecting populations appears to vary greatly, but has still been measured at above 20% in each of these 3 regions (Booth, et al. 2006). Female drug users are reportedly at greater risk of becoming infected with HIV than their male counterparts, but are more likely to know their status (Booth, et al. 2007). We also know that injection drug use and sexually transmitted diseases (including HIV) are significant problems among street youth in Odesa (Robbins, et al. 2010).

Even in light of these important contributions, significant gaps in research remain. To begin with, conventional wisdom among local and international experts is tending towards the conclusion that cases of HIV are severely under-reported across Ukraine. Exemplary of this opinion is a report of Ukraine's UNAIDS priorities for the period from 2007 to 2010, which states:

“Only a small proportion of the people living with HIV infection in Ukraine know their HIV status. From the beginning of the epidemic to the end of 2006, over 100,000 people in Ukraine had been registered with HIV infection. These include over 72,000 people under clinical observation in the network of 27 regional AIDS centers throughout the country. In comparison with the estimated number of people living with HIV, this indicates that less than 20%, or only one in five people who are infected with HIV in Ukraine are currently aware of their HIV status and accessing medical care.” (Joint United Nations Team on AIDS in Ukraine 2007)

Furthermore, very little research has been conducted in the western regions of the country, since it was long believed that the HIV epidemic was primarily concentrated elsewhere. However, there is a growing consensus, supported by preliminary research on voluntary HIV testing, that the incidences of HIV and IV drug use have been severely under-reported in these regions, in particular (Seydal and Burruano 2006). According to the most recent UNAIDS Country Report for Ukraine:

“The number of officially registered HIV infection cases reflects the number of carried out tests for antibodies to HIV and the structure of testing in the regions. In regions with limited access to testing, especially for people from most

at risk populations, the registered number of HIV cases may be significantly underestimated. (e.g., Zakarpattia region, Ivano-Frankivsk region, Volyn region, Zaporizhzhia region and Donetsk region).” (UNAIDS 2012a)

The state of medical and epidemiological data on HIV in Ukraine is steadily improving, but truly evidence-based public health efforts remain necessarily hindered by these gaps in our knowledge. We know a lot about some aspects of this epidemic, but very little about others, which occasionally leaves public health professionals and policy makers with only their experience and intuition to guide HIV-prevention efforts across the country.

In this context, I am seeking to better understand how bodies of knowledge about the HIV epidemic (and public health interventions designed to fight it) are being produced, as well as how that knowledge is engaged for decision-making, for social ends, and for other symbolic purposes. The primary aim of this article is to begin this task by viewing the discourses of EBM that have taken shape in the NGO-driven world of HIV-prevention in Ukraine through a critical, ethnographic lens.

Evidence based medicine in cultural context

The term “evidence based medicine” entered into medical discourse in 1992 (Tonelli 2001: 1435). Enthusiasm for this approach to medical decision-making has propelled EBM to a place of prominence. It is both an epistemological project focused on defining and developing systems of medical knowledge and medical evidence, as well as a mode of clinical practice that grounds treatment and diagnostic decisions for individual patients in knowledge produced by large, clinical studies (Tonelli 1998: 1235). Put more simply,

“[t]he general approach of EBM is to formulate a clear, clinical question in relation to an individual patient, search the literature for relevant evidence related to that question, critically evaluate that evidence, and then implement the findings. A clear pathway from the patient to the evidence and back to the patient is described” (Tonelli 1998: 1236).

This pathway is structured by well established and widely accepted hierarchies of evidence, which privilege forms of knowledge generated from large, randomized studies over experiential, intuitive, and otherwise un-systematic forms of knowledge gained by medical practitioners through the course of their work.

Strategies of harm reduction among IV drug users predate the emergence of EBM in medical discourse, but have become reliant on those standards of evidence for much of their defense against opposition to harm reduction on political or moral grounds. Harm reduction practices, as we now know them, emerged in

Amsterdam in the early 1980s, as the Municipal Health Service sought an alternative solution to drug use other than criminalization. The approach developed was given the moniker “The Helping System,” which consisted of four different phases: “(1) contact, (2) harm reduction, (3) drug-free treatment, and (4) resocialization” (Bruning et al. 1988: 60). The concept of harm reduction, as it was conceived in this early context, was based on the assumption that

“most addicts are caught in a pattern of drug use—cleaning up and relapsing finally resulting in either death or a stable, drug-free life. Harm reduction seems the second best aim if it is not (yet) to “cure” the addicts. In this way, the addicts are helped through a difficult phase in their lives, while it is hoped that one day they may overcome their addiction either through treatment or natural recovery” (Bruning, et al. 1988: 61).

As needle sharing was perceived as one of the primary mechanisms of harm, the benefit of steps taken to reduce that specific behavior appeared self-evident, and specific behavior changes became the primary goal of harm reduction efforts (Wood, et al. 2006). This first took the form of syringe exchange, which sought to reduce the need to re-use needles by providing access to new ones. Later, opiate substitution therapy was adopted as a mechanism to avoid needle use all together (Brette 1991). Recently, harm reduction activists in British Columbia have pioneered the supervised injection facility (SIF), where IV drug users can inject in a sterile environment under medical supervision (Vancouver Coastal Health 2012). Though the creation of these programs was largely based on intuition of what interventions would have an impact on infectious disease among the IV drug using population, statistical evidence of the efficacy of harm reduction efforts (cf. Martin, et al. 1990; Wood, et al. 2006) have bolstered the legitimacy of these programs, and the adoption of EBM as a guiding paradigm has allowed harm reduction advocates to defend these programs through “clear-cut, evidence-based policy” (Paradis 2008: 445).

Ukrainian HIV-prevention and harm reduction NGOs and international health and development organizations have been obliged to engage with the language and the ideology of EBM, especially during the months that they spent drafting Ukraine’s application for The Global Fund’s 10th round of HIV-prevention funding. In its own words, The Global Fund “supports *evidence-based* interventions that aim to ensure access to HIV prevention, treatment, care and support for most-at-risk populations” (The Global Fund 2010; emphasis added). At the center of The Global Fund’s public health philosophy is the mantra “know your epidemic,” which has been popularized by the upsurge in attention paid to the need for epidemiologically rigorous evidence-based medicine and public health practice (UNAIDS 2012b). Due to their financial dependence on international donors—and on The Global Fund in particular—Ukrainian NGOs must present evi-

dence-based responses to the HIV and drug use epidemics that are “tailor[ed] and justif[ied]...within the context of the epidemiological situation and the needs of the people at risk” (The Global Fund 2010) in order to gain the monetary and political support they need.

A Global Fund Round 1 grant of over 90 million US dollars had been supporting the existence of harm reduction and HIV prevention efforts in Ukraine since 2002. In fact, this entire field of public health and disease prevention still relies on this channel of funding, specifically, in order to stay financially viable. As one HIV-prevention coordinator in Kyiv described the situation in 2010, “Everything comes down to that [Round 10] application. If something goes wrong, and that funding stream [from The Global Fund] disappears, then [the total sum of HIV prevention efforts in Ukraine] could all shut down tomorrow.” By the time The Global Fund was accepting applications for its 10th round of funding, the money from the Round 1 grant was running dry, and Ukrainian NGOs desperately needed to coordinate their efforts in order to show that their programming was effective, reliable, and adaptable to the constantly fluctuating political and epidemiological realities of Ukraine.

This need to coordinate and create coherency between clinical realities, epidemiological data, cultural values, and political ideologies (i.e. multiple elements other than simply ‘evidence’) in order to successfully articulate a particular public health problem and its proposed solutions is neither uniquely Ukrainian nor uniquely Post-Soviet. Physician Mark Tonelli, one of the most outspoken critics of EBM in US medical practice, has argued that the clinical logic of EBM is rooted in the cultural values of modern science and based upon a hierarchy of evidence that is “neither ‘evidence-based’ nor scientific in any sense of the word” (Tonelli 2001: 1437). He implies that this hierarchy is maintained by philosophical and cultural values rather than some scientific evaluation of the quality of different forms of evidence, whatever that might be.

While Tonelli illustrates that the coordination of multiple kinds of knowledge is a central part of clinical diagnosis and treatment, Cambrosio et al. (2006) suggest that the coordination of collectively produced medical and scientific knowledge has become an integral and inextricable element of current biomedical practice, in general. They describe the production of medical knowledge not only as a collective effort to produce information, coordinated across multiple sites (clinics, hospitals, labs, etc.), but also as a recursive process that incorporates the ideologies of standardization into decision-making and justifies that ideology with the standardized knowledge it produces.

What counts, in other words, is not whether or not the results produced by a particular laboratory are true, in some absolute sense, but whether or not they are compatible (within conventionally determined statistical limits) with results produced by other laboratories (Cambrosio, et al. 2006: 192).

The consequences this observation holds for actors in the fields of medicine and public health are profound, though not necessarily surprising. Ethnographic research (Berg and Mol 1998; Gardner, et al. 2011; Mol 2002) has detailed the ways in which clinical decision-making consists of the effortful coordination of multiple (and highly variable) types of evidence, systems of knowledge, and lived realities. The scale of EBM's most preferred source of medical evidence and knowledge (i.e. meta-analyses of large clinical trials) is matched by the scale of coordination that must be managed by clinicians, scientists, public health organizations, and policy makers as they frame their work as coherent and effective within the ideological realm of EBM.

The philosophies that framed the Soviet medical system were fundamentally incompatible with an evidence-based approach in a number of ways. The role of medicine was framed by Marxist and Leninist philosophies that attributed disease to social causes. Early communist leaders believed that inequality bred by capitalist conditions led to illness among the workers, and that the Bolshevik revolution, by bringing an end to capitalist exploitation, would also bring an end to the disease and illness that it engendered (Field 1967). For this reason, public health and medical care were seen as the responsibility of the state and offered at no cost (no official cost) to the entire population (Field 1967). However, this also meant the role of physicians was directly tied to the quality of labor and the production capacity of the population. The role of the physician became defined not simply by the need to treat the ill, but also by the need to keep labor losses at a minimum. It thus became the de facto job of clinicians to curb malingering and to validate illness (and the reprieve from work that it granted) among his or her patients (Field 1953). The state guarded against malingering by setting quotas for the illness certificates that physicians were able to distribute. The accepted norms for illness in any given population were determined by the central administration, and physicians risked fines or other sanctions if they violated these norms (Field 1953). Thus, the expectations for population health and the resultant medical practices in the Soviet medical system were not supported by a different kind of evidence than that employed by EBM; rather, they were pre-determined by central administration according to goals set for labor and production.

Recent socio-cultural research on the adoption and implementation of EBM in the Post-Soviet sphere has focused on EBM as a *political discourse* rather than a scientific or medical paradigm. Anna Geltzer argues that the language of EBM has been adopted by some Russian doctors as “a discourse of power, both in the sense of being the dominant discourse of a group that is vested with tremendous symbolic power (the western medical profession) and in the sense that it is a discourse that confers power on those who use it effectively (the Russian advocates of EBM)” (Geltzer 2009: 527). She argues that EBM is also “a medium through which the Russian medical profession is attempting to redefine itself and its relationship

to the rest of the world” (Geltzer 2009: 527). These discursive moves are particularly significant when considered in light of Soviet standards of medical practice and the mechanisms by which they were set. The act of utilizing or promoting EBM as a legitimate paradigm constitutes a radical departure from the logic that governed medical practices and standards during Soviet rule.

Western medical and public health elites, in particular The Global Fund and the U.S. Agency for International Development (USAID), often use the language and logic of EBM as an allegedly value-neutral and rationalistic language for critiquing medical practices abroad (Geltzer 2009: 530). Owing to the reputation of Soviet science as a sphere “in which politics and ideology only interfere with, rather than produce or construct, scientific knowledge” (Ninetto 2006: 448), western experts often use EBM as a baseline for comparing the efficacy of public health practices in the post-Soviet sphere. It is also used as an appeal to a higher authority of knowledge that discredits local forms of knowledge about public health and health care practices. What Geltzer observes among Russian physicians, then, can be interpreted as a strategic engagement with the discourse of EBM designed to position physicians and their practices as legitimate, effective, and deserving in the eyes of foreign experts and international agencies that fund health services abroad.

Methods

The arguments made here are based upon three phases of ethnographic work in Ukraine, which took place during the spring of 2007, the summer of 2010, and the fall of 2012. This research was conducted in Kyiv, the capital of Ukraine, as well as five other regions: Cherkassy, Crimea, Kherson, L’viv, and Odesa. I have been able to observe public health efforts in a variety of venues, including the national headquarters of Ukrainian coordinating organizations, regional offices of international funds and institutes, narcology clinics, rehabilitation clinics, mobile and stationary needle exchanges, numerous community centers, buprenorphine dispensaries, and the headquarters of many grassroots harm reduction agencies. I have also observed trainings led by international public health experts for Ukrainians who work directly with people living with or at risk of HIV and gatherings of representatives from numerous Ukrainian and international organizations in preparation for Ukraine’s single country application to The Global Fund. I have been able to gain access to a wide variety of individuals working in this sphere: from high-level officials in international organizations that coordinate global HIV-prevention efforts to under-paid staff at local NGOs that provide services to small, rural communities. Learning from the diverse experiences of these public health professionals has allowed me to develop a fuller, richer picture of drug use and drug user services in Ukraine.

Over the course of my research, I have conducted over thirty open-ended interviews with public health professionals who work in a variety of roles. These interviews have been transcribed and coded for thematic content. Patterns in discourses of best practice, the production of epidemiological knowledge, and evidence-based programming quickly emerged from this analysis. I have anchored my accounts of these patterns to a collection of recorded events and interview excerpts. By re-telling the stories of these moments in my research, I aim to convey not only the ideological work undertaken by public health professionals as they frame their work in evidence-based discourses, but also to reveal some of the ways in which these personalities interacted with those frames and moved in and out of them fluidly through the course of our conversations.

To protect the privacy of my informants, I have used pseudonyms in place of the names of individuals and organizations throughout this paper. This research was approved by the Human Subject Division at the University of Washington in Seattle, Washington, USA.

Skepticism and distrust in health statistics and promotion

Katherine Verdery has aptly described socio-cultural responses to the collapse of the Soviet Union as the “reordering of people’s entire meaningful worlds...including morality, social relations, and basic meanings” (1999: 35). She has further argued that a critical exploration of the new social realities (and here, medical realities) in the Post-Soviet sphere “requires a theoretically grounded understanding of the system that has crumbled and an ethnographic sensitivity to the particulars of what is emerging from its ruins” (1996: 10). Following her insight, it seems necessary to consider not only current discourses of EBM, but also the historical legacies that have made the social and political character of scientific knowledge much more tangible in contemporary Ukraine.

Amy Ninetto, who has conducted ethnographic work among scientific communities in Russia, discusses this Soviet legacy, noting that

“...even as Western science recognizes its transformation into what Latour (1998) has called ‘the culture of research’ — an enterprise whose authority can no longer rest on a denial of its multiple contextualizations — Russian science is faulted for having yet to become properly Mertonian: inadequately disinterested, skeptical, open, and universalistic” (Ninetto 2005: 488).

In other words, all scientific discourse is embedded in the social structures and political schemas that surround it, but in Russia (and, I would argue, in other Post-Soviet places, especially Ukraine) this fact that science can be swayed by politics is no secret. It is part of the most basic cultural logic.

On top of the risk of politically motivated data manipulation, Ukrainian public health professionals also face a significant specter of data that is unreliable due to

poor collection techniques, poor research design, and even data falsification. The director of a Kyiv-based institute specializing in public health research emphasized the extent of this problem, saying, “We analyzed recently a report from [a local group of researchers]. The sample claimed to represent only IV drug users, but when we talked to people in the field, we realized that they had mostly recruited alcoholics... [Confirming the reliability of data] is important, because sometimes we analyze fantasy. We conduct advanced analyses, use sophisticated techniques, but it’s just air. Not reality, just numbers.”

The discursive force of both of these uncertainties can be seen in the scenes below. Data is questioned for where it comes from as well as for what it may indicate. In each of these four vignettes, an evidentiary failure of some kind is evoked. Through narrative devices and appeals to personal knowledge or expertise, each individual manages the interpretation of data, keeps its meaning in question, and uses that uncertainty as a pivot with which they position themselves within the larger context of Ukraine’s HIV-prevention efforts.

Zaidesh na kavu?

Various public awareness campaigns promoting safer sex practices and other HIV-prevention strategies have appeared in Kyiv in recent years. During the summer of 2010, one poster, in particular, graced nearly every single advertising kiosk that lined the escalators in the Kyiv metro. The poster, designed by the German group GTZ as part of their campaign “*Не Дай ШИДу Шанс*” (*Ne Dai SNIDu Shans*, Eng: Don’t give AIDS a chance), featured a sepia-toned photograph of a young woman sipping a cola and smiling flirtatiously at a young, male companion. A speech bubble, which extends above the young woman’s mouth, reads “*Зай-деш на каву?*” (*Zaidesh na kavu?* Eng: Would you like to go for coffee?). At the bottom of the image, a caption has been printed in large, red block letters: “*Секс = Презерватив*” (*Seks = Preservativ*, Eng: Sex = condom). If you look closely at the image, you will see that the woman’s speech bubble is in the shape of an unrolled condom.

Those who spoke with me about this ad were consistently dismissive of its message as well as its intentions. Sasha, who worked as an officer in the Ukrainian army, interpreted the aesthetics of the image as a cheap ploy to invoke positive visions of Soviet social life. He felt that foreign agencies often tried to exploit such nostalgia for the imaginary in their marketing towards young people, but that they always ended up executing this plan naively and with little effect.

“It’s stupid,” he said. “I don’t think anybody pays attention to this. Besides, I think it is just a scam.”

“A scam?” I asked. “What do you mean?”

“You know, they get some grant from somebody to do this HIV work, and then they just put up some posters. Anybody can put up posters. It costs nothing, but it

looks like they are doing *something*. Then they just pocket the rest of the cash from the grant for themselves. That's how these things usually happen.”

“Yea?”

“Usually.”

“And what about that phrase, ‘*zaidesh na kavu*.’ I’ve never heard that. Is that a common idiom? Do people say that?”

Sasha looked at me, amused. “No. No one says that.”

Lena

Lena is a program manager for a large NGO that coordinates public health interventions and manages large sums of money from Global Fund grants. From her agency’s main offices in Kyiv, she explained the nature of her work and the tools her NGO uses to scientifically assess the social and epidemiological situation among high-risk individuals (i.e. injection drug users and sex workers) throughout the country.

She mentioned she had recently been involved in a program that promoted naloxone for overdose prevention. She said she and the other project leaders had many problems getting a naloxone program up and running, because people are very scared of drugs. She claimed that many Ukrainians believe only a special doctor like a narcologist should be prescribing something like naloxone, when in reality any doctor is perfectly capable of prescribing or administering it.

She said overdosing is a serious problem in Ukraine. She also expressed frustration over the lack of available information on the human health consequences and mortality resulting from overdose, as there are no national statistics on this cause of death. Overdose cases, she said, get ‘hidden.’ They are generally categorized as instances of heart failure or of poisoning, and, in Ukrainian death records, there is no distinction made between how or with what a person was ‘poisoned.’ Lena’s naloxone program could have been aided by supporting evidence about the number of overdoses that actually occur, but current policies which categorize these deaths as indistinguishable from other accidental poisonings renders drug overdoses invisible to scientific and epidemiological technologies, essentially erasing this cause of death from the public record.

I asked Lena how significant she believed the risk of overdose to be in typical Ukrainian drug users. “In all practicality,” she replied, “we just don’t know.”

Sveta

Sveta is a program officer at a large NGO in Kyiv that coordinates HIV-prevention grants across a network of smaller organizations throughout Ukraine. Her job is to help monitor the programs at nine different NGOs in various parts of the country.

I asked if there were different needs or problems or approaches between male and female clients. Sveta said there aren't many female clients. When I asked her why this was, she suggested that fewer female clients exist because fewer injection drug users, in general, are female. She pointed out that drugs cost money, and a man can get a job more easily than a woman, especially if neither has any education. She clarified, though, that young drug users who start using stimulants in the club scene are probably more evenly split between men and women. For the most part, though, female injection drug users are a rarity.

Sveta openly offered the fact that there is research available indicating that male and female injection drug users exist in equal numbers. She quickly rejected these empirical findings, though, doing so in large part because these statistics don't agree with her own experiences.

"That just isn't the real picture," she said. "Female users are much more stigmatized, and if they even get drugs at all, it's from their husbands."

Death by cucumber

"The problem here is that we have people who settle into methadone treatment." Ivan, the director of a narcological dispensary in Crimea, pulled the bag of leaves out of his tea and pensively dangled it over his cup for a moment before lobbing it into a nearby trashcan. "They don't want to quit taking drugs. They say 'this program is alright,' and they just stay there."

"That's interesting," I replied, "One of the indicators that is often discussed in the US is the percentage of methadone patients who finish the program, who successfully decrease their dosage and step off methadone completely."

"Are those statistics used to measure the success of the program?" Ivan asked.

"Sometimes."

"Well, there are lots of statistics that you can use to make this program look like a failure." As though aware of the irony in the act, Ivan paused to smile and wave hello to a energetic, upbeat methadone patient who had popped his head into the office to say 'good morning' and snatch a cookie from the doctor's stash of pastries. Ivan continued, "And not just social outcomes either. It could be the percentage of patients with HIV, the percentage of patients with TB, the percentage who have started treatment for other diseases since they entered this program..."

"You know, we have this one well-known statistic," interrupted Pavel, the assistant head of the dispensary. "Lots of people here like green cucumbers, especially in the summer when they are really fresh. Everybody eats them. We could say that nearly 80% of the people in Ukraine eat green cucumbers on any given day in the summer, including the people who die. So that's where we get this statistic, that 80% of people who die in the summer die from eating cucumbers!"

Ivan and Pavel smiled at each other and erupted into laughter.

Each of these scenes reveals a moment in which the speakers engage with discourses of evidence, negotiating the meaning of the reality that such evidence is meant to indicate. Sasha displayed his deep-seated skepticism of public health messaging. His criticism is based upon his understanding that specific results and indicators can be cherry-picked and selectively emphasized to indicate politically desirable outcomes. He suspected that the public awareness campaign was designed to produce desirable *outcome indicators*, not to produce desirable *outcomes*, per se. In a similar move, Ivan and Pavel creatively demonstrated the ease with which statistics can be used to make any claim at all. They also not so subtly insinuated that evidence of their own program's failure is likely just as fabricated as the statistics in Pavel's anecdote about cucumbers.

Lena spoke of the impossibility of gaining necessary epidemiological knowledge, since record-keeping practices, even when carried out according to Ukraine's current standards, frequently undermine public health goals. On the one hand, she makes the very legitimate point that more research on overdose and the efficacy of naloxone in Ukraine is needed. This fact is not in question. However, her statements also reveal a deeper, more symbolic interaction with statistical evidence of overdose. Lena spoke of the importance of the naloxone program before acknowledging that the morbidity and mortality statistics that could justify this program simply do not exist. While Lena rightly points out the need for more external evidence, she also indicates the need to gain this evidence in order to support (and thus qualify as "evidence-based") a program that has already been deemed valuable and worthy by other measures.

Sveta revealed her distrust in existing statistics by rejecting it as useless or flawed when it did not reflect the relationships she expected. It should be noted that numerous research projects conducted both before and after this interview was taken (cf. Booth, et al., 2009; International HIV/AIDS Alliance in Ukraine 2010; 2011b; 2012), recruited nearly three-times as many male IV drug users as female IV drug users through respondent-driven sampling techniques (in which new research subjects are found through recommendations made by previous research subjects). One of the major drawbacks of respondent-driven sampling is the impossibility of assuring how well the recruited sample represents the general population under investigation (Black 1999), and this is a legitimate factor to consider in current estimates of the drug using population. Regardless, Sveta does not critique the methods or procedures of the research she dismisses. Rather, her rejection is based upon her understanding of the social mechanisms of female drug use. The merit of a particular statistical measure, in this conversational moment, rested not upon the methodological rigor of that measurement, but rather on the

degree to which the statistic coordinated with her own understanding of the social mechanisms of drug use.

What's in a number? The value of producing evidence

Ukraine's HIV-prevention programs must conduct a great deal of accounting, as required by international financiers such as USAID and The Global Fund. Strict tallies must be kept of how many people came in to the clinic, how many needles were distributed, how many condoms were taken, how many people were referred to HIV testing, and so on. I once had the opportunity to ask a staff member at a major foundation in Kyiv whether the records kept by each of their partner agencies need to be repackaged before they are sent back to their donor for accounting. Her eyes widened and she said, "oh yes." They had to hire a full-time staff member to deal with this issue of reporting for their 190,000 annual clients.

Owing to this imperative, Ukrainian public health professionals have become adept at speaking the language of their international benefactors—i.e. the language of EBM. Adopting EBM as a gold standard allows HIV-prevention organizations to make claims of legitimacy, rationality, and authority both in the local political sphere and on the national stage by successfully producing 'evidence' through their own accounting and data collection activities. Recently, when I suggested the importance of maintaining this legitimacy to the manager of a methadone project in Odesa, he paused for a moment and then laughed. "Yes, this is true," he said. "We Ukrainians are very good at writing reports, at making our work *visible*, you know?"

In the scenes below, the effort public health professionals put into making their work 'visible,' in this sense, becomes apparent.

Oksana

During our interview in her office in Kyiv, Oksana described the programming philosophies of her organization. "We go to our partner organizations and talk to them about what they need," She explained. "Once we collect this information, we reformulate those needs into a formal working plan to submit for a grant proposal. There are only two organizations in Ukraine that do this sort of work; we are one of them."

According to Oksana, her organization conducts behavioral surveys of their target population every two years in an attempt to track changes in high-risk behaviors. These projects consist mostly of cross-sectional surveys. She said it is sometimes hard to analyze their data collectively, because they are "not very good with their instruments," and the survey tool changes (sometimes significantly) from year to year. But they still do it, and this, she said, was what really mattered most. She said they ask survey participants about what they know about HIV, if they

have a partner, who that partner is, what they do, and so on. Of particular importance, Oksana said, is her organization's ability to identify new 'subgroups' within high-risk population with these surveys.

I asked Oksana to clarify which organizations conduct this kind of large-scale behavioral research. She replied that, once in a while, everyone is doing this kind of research. Programs have to evaluate what they do, to some degree. However, she was clear to make a distinction between the scale of what her agency is doing and what other organizations do, indicating that the surveys are big, reaching up to 1500 participants. "We are trying to gain some sort of information to build up our programs, some kind of evidence from the field."

Andriy

Andriy also works for a large, Ukrainian NGO. He holds a title similar to Lena's, but he understands his contributions to be more associated with the business end of things, not the provision of services. As we chatted in his office in Kyiv, he emphasized the empirical sophistication of his agency's work and the rational soundness of his own business practices. The following is an excerpt from the interview transcript:

Andriy: Most of our work in here is actually getting the best expertise we can get from around the world in our area of interest. I mean, responding to HIV in the most at-risk populations. And we're trying to get as much as we can. We have The Global Fund support, which helps a lot in terms of funds, and also we have a monitoring team here, which does a lot of, well, they have like regular studies and surveys and so on. Like sentinel surveillance and quite scientific stuff, using respondent driven sampling and going deep into the population... Then we look for different evidence around the globe, trying to model some response programs and then pilot them and then have them scale up... We also do a lot of organizational development, financial management, because it's a lot of money, and of course some organizations need more, you know, training to be able to report on what they are doing, and so on. It was a quite simple task when we were just starting. Now it's more complex. We have like sophisticated software, which every organization uses, so they can track clients' numbers, cards—how much was distributed and so on.

JC: Yea, I had heard about this database before. Why is it so important to track the kind of materials that goes to each individual client?

Andriy: It's more like a kind of liability issue, I think. The Global Fund requires us to follow the money and look where it's being spent. Is it going to the program or not? So there's a lot of program monitoring that's connected to this issue. Also there's the financial monitoring which is separate. Like audits—we have an audit which tracks all the spending accounts and books, but as far as programmatic monitoring, we just want to make sure that we are reaching the clients, that there is coverage, and that we know that they are receiving what we are procuring...

Yulia

Yulia is a local project manager who works for an international NGO. At the time of our interview, she had just ended her participation in a pilot program designed to promote HIV testing and awareness through pharmacies. The intervention involved providing pharmacists with basic training on how to identify and counsel high-risk individuals who come into their pharmacy. Does this person look like a drug user? Do the symptoms being described sound like an STD? If so, the pharmacist was meant to give a referral card to the customer that provided further information on how and where to be tested. They also printed HIV-awareness and testing information on plastic bags that were used to pack pharmacy purchases at the counter, thus spreading information about HIV-testing into the household of every customer who came in to the pharmacy. Yulia was very enthusiastic about the outcomes.

“The results of our intervention were 20%!” she proudly exclaimed. In the seconds immediately following this statement, I held my breath, waiting for Yulia to let me in on the rest of the story (20% of what, exactly?), but she didn’t stop to clarify before proceeding with her account. “Who knows if this is a good or bad result,” she continued, “but it was so wonderful to have real numbers to report and to receive the feedback from our colleagues.”

All the money that was given to the program was used to purchase 500,000 material items to distribute: the 400,000 bags and 100,000 other pieces of literature for a total of twenty-two pharmacies. Many of the pharmacists told her that they would be happy to start up the project again when funding comes back to print more materials.

“Funds are needed,” she said. “If someone gets information, this is valuable, but certainly it costs money.”

An interesting trait of EBM is revealed in these scenes: namely, evidence is serving two different purposes in the Ukrainian context. On their surface, all three vignettes show a dedicated and conscientious public health professional doing what he or she can in order to manage the logistical realities of running an HIV-prevention program and the evidentiary crises that arise. At the same time, we can also see each individual making certain claims about the value of their program—claims based upon the successful framing of evidence they have produced as ‘high quality’ or otherwise significant within a positivist medical discourse (EBM) that values reliable, accurate evidence above all else.

Oksana’s complaint about the variability of her organization’s survey instruments is well founded. Without a consistent tool, the utility of the data, of the external evidence they collect, will suffer, and their ability to enact higher standards of EBM will be compromised. The existence of these difficulties, however, did not prevent her from reporting—with pride—that the surveys reach nearly 1500 respondents year after year. She claims her organization is unique in that it builds

its programs based on “evidence...from the field.” This evidence might not be ideal, but having hard numbers to report, regardless of their flaws, is a desirable end in and of itself. As Oksana herself pointed out, they conduct their surveys anyway, and that is what matters the most.

Andriy emphasized need to produce accounting records for their donors. The practical necessity of this sort of record keeping is obvious, and Andriy is correct in his assertion that taking such accounts, when done properly, can help improve the work of his organization. However, he also acknowledged the need to produce various accounting records and reports due to their liabilities (fiscal and practical) to The Global Fund, as a way to, in the words of the program manager from Odesa, “make their work visible.” Andriy framed these activities as authoritative and methodologically rigorous by commenting that his organization’s monitoring activities include, “sentinel surveillance and *quite scientific stuff*, using respondent driven sampling and going deep into the population” [emphasis mine]. While his organization is most certainly doing its best to operate in-line with EBM as a standard of public health practice, Andriy is careful to see that the political and symbolic benefits of those practices are conferred on his employer as well.

Similarly, Sveta anchors the importance of evidence, a potential index of the efficacy of her program, to these political and symbolic ramifications *entirely*. The legitimacy she believes her project has gained in the eyes of other public health professionals (and, most likely, the international groups that funded the program) was so significant that, in her enthusiastic description of that legitimacy, she failed to even clarify *how* that evidence reflects upon the program’s efficacy or success. Her account reveals that statistical evidence is more than just a necessary work product of a legitimate public health enterprise. They are also the foundation of her NGO’s claims that it is a deserving entity worthy of international funding. Quite a lot, then, is riding on her ability to project evidentiary rigor in an ontologically uncertain territory.

Evidence and morality in post-soviet place

The ethnographic vignettes above support the argument that public health professionals are establishing identities and claiming certain forms of agency by engaging with EBM as a discourse in Ukrainian HIV-prevention efforts. Recall the assertion of Cambrosio et al., cited in the introduction, that the most important factor in determining the objectivity of a particular scientific research project is not “[truth] in some absolute sense, but whether or not [the results] are compatible (within conventionally determined statistical limits) with results produced by other laboratories” (Cambrosio, et al. 2006: 192). The public health professionals interviewed here are producing coordination, in this sense. Some accuse sets of data of being incompatible with standards for creating sound scientific data (as in

the cases of Lena, Ivan, and Sergey) or with their own personal experience (as in the cases of Sasha and Sveta). Others highlight the value of producing data for the sake of presenting the practices of their organization as legitimate (as in the cases of Oksana and Andriy) or for the sake of gaining approval and resources from powerful actors (as in the case of Sveta). These individuals are asserting their own political and moral evaluations of prevention programs and research projects. In so doing, they are positioning themselves as capable, aware and morally upright actors. They present themselves as fluent in local forms of the manipulation and fallibility of evidence. They present themselves as capable of rescuing efforts at evidence-based public health practices that might fall victim to those fallibilities. They present themselves as authoritative actors within the sphere of public health, thanks to their ability to produce evidence about their own practices and frame that evidence as reliable and sound.

Jarrett Zigon has argued that *agency* is the ability to negotiate one's position within social structures, to make oneself into someone who fits in local structure, into a "socially and morally appropriate person" (2008: 90). It is precisely this kind of self-positioning between multiple structures—between local and international discourses of EBM—that we see public health workers in Ukraine working to accomplish. In this way, EBM both as practice and as discourse provides Ukrainian public health professionals with an opportunity to claim personal agency and embolden their sense of control in an uncertain political and economic environment.

The work of Bruno Latour is frequently used to problematize interactions between so-called 'universal' scientific knowledge (in this context, the standardized premises and practices of EBM) and local knowledge (public health professionals' ability to interpret and manage the meaning of evidence and evidence-based practice). According to Latour, scientific knowledge is created through abstractions, by measurements that place distance between a concrete reality and scientific discourses about that reality (Latour 1999). This knowledge, then, claims the ability to operate at a certain distance from the world, to travel far without sacrificing its relevance and applicability (Latour 1987). Similarly, Clark and Murdoch have argued that this characteristic allows scientific discourses to reshape localities into more convenient forms: "Herein lies the success of science and the basis of its universal claims. It remakes the world in its own image" (Clark and Murdoch 1997: 41).

EBM, as a system of standardized practices, constitutes a method of knowledge-production similar to that described by Latour (1999). Indeed, the central tenets of EBM hold that the most valuable sources of evidence are those that are the most generalizable and maintain the greatest level of abstraction: randomized trials and meta-analyses of randomized trials (Tonelli 2001: 192). However, the state of affairs in Ukraine's HIV-prevention sphere does not mirror that predicted by Clark and Murdoch, in which scientific (or here, evidence-based) ideas and dis-

courses carve through local knowledge like an iceberg, remaking the world in its image. Instead, it seems like something of the opposite is going on. Ukrainian public health workers are adapting EBM as a discourse for their own political purposes. *They* are the ones working towards a correspondence between local and universal standards of evidence. Doing so allows them to successfully engage in the practice of “anticipatory interpellation” (Carr 2011: 153). They are able to take on a particular social role (that of the deserving expert) and to “speak effectively from these designated locales, in politically efficacious ways” (Carr 2011: 154).

In a recent presentation on the epistemological challenges of EBM, Brian Dolan observed, “Saying that one uses evidence to make decisions gives the impression that the decision is itself calculated. But this hides much that is implicit in the act of deliberation” (Dolan 2007). Dolan claims that the interpretation of evidence is much more entangled with culturally informed moral heuristics than the philosophies of EBM would have us believe. In fact, he asserts that the very process of translating between data or evidence and a so-called evidence-based decision is a moral one, and that data and decisions are constructed in constellation with one another—each one capable of bending to fit the other (Dolan 2007). His conclusions point to questions of culturally defined values and moralities that underpin how EBM is able to work ‘on the ground’ in different cultural settings. What elements of morality will be filtered in or out of evidence-based decision making as EBM, the ‘gold standard’ of public health practice gets re-interpreted by local social structures and systems of meaning? How will the pre-conceived moral heuristics and ‘black-boxed’ cultural logics unique to new cultural contexts alter this relationship and the policy it produces?

This article has suggested that the political and financial context of HIV-prevention in Ukraine brings the symbolic and value-laden character of EBM into clearer focus. Public health professionals are using EBM to expand and improve the national response to Ukraine’s HIV epidemic in significant ways. They are also using EBM as a discursive tool for framing their identity and behaviors within the larger institutional structure of HIV-prevention as well as claiming new forms of agency, gained through acts of “anticipatory interpellation” (Carr 2011: 153). These social discourses do not get in the way of EBM or evidence-based practices in Ukraine. Rather, EBM as a social discourse is mutually constituted with EBM as a set of scientific or bio-medical practices. While there may be some success in standardizing EBM as a form of medical practice across large parts of the globe, the shape and character of EBM as a social discourse will vary according to the cultural values and logics of the given social context in which it is adopted.

In the Ukrainian context, this social discourse is deeply influenced not only by what local actors feel they have to gain by entering the world of EBM, such as prestige and professional authority, but also by what they feel they have to lose: the funding stream that supports not only their professional positions and the or-

ganizations that employ them, but also the majority of HIV-prevention efforts, as well. For, as a program manager in Kyiv observed, “If something goes wrong, and that funding stream disappears, then this could all shut down tomorrow.” Small wonder, then, that discourses of EBM have become so value-laden in this environment.

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