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The Occupational Health of Prison Inmates: An Ignored Population and an Opportunity

To the Editor:

This article is an adaptation of a presentation to the ACOEM House of Delegates at AOHC 2018. I owe a special thanks to Dr Bill Buchta for that opportunity.

A VIGNETTE ABOUT AMERICAN WORKERS

In the early 2000s,[1–3] a group of American workers were engaged in electronics recycling, a job regarded as highly hazardous due to potential exposures to solvents, lead, manganese, beryllium, and ergonomic hazards. This particular group was primarily engaged in "glass breaking," referring to the removal and rupture of cathode ray tubes from computer monitors. As the bulbs were broken they would release a fine dark dust that would cover the workers' clothes and skin. Upon entering their eating area, about 200 ft. away, the employees would shake off their jackets, again releasing the dust which would cover their tables and food. Work that should have taken place in a closed booth was performed on the open warehouse floor, few workers were informed about the hazards they faced, and they were provided inadequate laundry facilities and no respiratory protection.

In frustration, the head safety officer used personal funds to perform environmental testing which showed levels of heavy metals that were 40 to 500 times recommended limits. His concerns expressed to management went unheeded, finally forcing him to file for federal whistleblower status and finally prompting a formal investigation. Former workers reported that management responded by ceasing operations, forging training documents, washing buildings, and replacing soil before inspections.

Years later, many employees complained of a variety of health complaints which they attributed to their time at this job, from chronic cough to constitutional and neurological symptoms, but have received no compensation for these conditions. A former supervisor expressed personal knowledge of at least six premature deaths which she attributes to their exposures. Finally, it was exposed that while working, these same workers were paid less than $1 per day, were not covered by workers' compensation or protected from discrimination, could not collectively bargain for improved working conditions, and faced huge barriers to litigation for damages.

LABOR PROTECTIONS AND OCCUPATIONAL HEALTH

This story fascinated me, because our country has a legal framework in place to protect workers from precisely these types of outcomes. The Occupational Safety and Health Act of 1970 and state Workers' Compensation laws provide primary, secondary, and tertiary prevention of physical hazards in the workplace and research suggests that (properly instituted), they have been successful in improving outcomes.[4–10] Additional laws protect health indirectly by improving the conditions of employment. The Fair Labor Standards Act mandates minimum wage and overtime pay, Title VII of the Civil Right Act prohibits discrimination in the workplace, and the National Labor Relations Act structures collective bargaining for the purpose of improving employment conditions.[11–13] These laws impact psychosocial, rather than physical health, but again, the research establishes a clear correlation between discrimination, wages, collective bargaining, and their impact on health.[14–19] Taken together, employment protections constitute a critical determinant of occupational health, but how could these workers so utterly fall through the cracks?

One answer has an origin much older than any of these laws. The 13th Amendment to the US Constitution was written soon after the Civil War with the intent to abolish slavery. It states: "Neither slavery nor involuntary servitude, *except as a punishment for crime whereof the party shall have been duly convicted*, shall exist within the United States, or any place subject to their jurisdiction."[20] (emphasis added) This central phrase is known as the "Punishment Clause," and herein lies our answer—these workers were prison inmates.

While compelling, it does not serve us to discuss whether inmate labor is slavery. The term itself is emotionally charged, it lacks detail, and certainly does not direct us toward a solution. Furthermore, no one would suggest that conditions in modern American prisons are as dire as those during chattel slavery of the pre-War South. However, it does illustrate the approach the United States has taken to criminality in this country—prison is punishment, prisoners are convicts, not workers, and regardless of the work they may perform, their offenses have not earned them the "privilege" of workplace safety. As an insidious legal expression of their cultural status, inmates have been either been ignored or excluded from all the major protections we have just mentioned.[1,21–28] But we are not lawyers or criminologists. We are physicians, and our interest lies with the health effects of workplace conditions.

WHAT DO WE KNOW ABOUT INMATE LABOR?

Of the 2.3 million people incarcerated in the United States, about 870,000 perform some type of work.[29] Compared with workers of other industries in which we have an interest (eg, 714,000 physicians, 400,000 welders, or 327,000 career firefighters) this is no small number.[30] They work in familiar jobs for which the hazards are well characterized—cooking, cleaning, laundry, and maintenance, but also manufacturing, agriculture, and construction. They manage call centers, sew underwear for Victoria's Secret, run dairy farms, and occasionally perform electronics recycling.[29,31] This past year, almost 3700 inmates have helped fight California wildfires (comprising 1/3 of the total force), last year working a total of 10 million hours, saving the state $100 million, and undoubtedly saving many lives.[32]

Despite the value they provide, the average inmate in the United States earns an average of $0.93 per hour, is not protected from discrimination, cannot organize for improved conditions, and face severe restrictions on their ability to litigate grievances.[27,28,33] Most relevant to our efforts, however, the relevant agencies (Bureau of Labor Statistics, the Bureau of Justice Statistics, and the CDC) do not gather occupational data from "institutionalized populations."[23,24] As a result, we are

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denied our primary means for determining of their rates of injury, illness, or disability. As we all know, ''the system achieves precisely the results it is designed for,'' and this system is not designed for occupational health.

Despite these descriptions, I also do not intend a discussion about the abolition of prison labor. Inmates work for the same reasons as you, or I, or any patient sitting in your clinic. We each seek material security, the ability to care for our loved ones, a sense of identity, autonomy, and accomplishment, and integration into the social fabric around us. For an inmate, productive work alleviates boredom, improves social skills, self-confidence, maybe teaches a useful skill, and provides a context for improved relationship with prison administration. The prison decreases operating costs and becomes safer. Upon release, skills they have learned may translate into stable employment as well as the ability to care for loved ones and stay out of prison.[34–36] Safe and productive work remains essential to the human experience.

SO WHAT CAN WE DO?

As physician-scientists, we must begin by quantifying and characterizing the problem. My own literature review has revealed precisely zero medical and public health articles dealing with inmate occupational health (Montoya-Barthelemy A. Literature Review of Occupational Health of Inmates in the United States; 2016. Unpublished work), but far from presenting a challenge, our previous inattention presents a tremendous opportunity. We have a chance to create the literature for a unique and marginalized workforce, almost a million strong and from the ground up. We will ask the questions:

- Where do inmates work? In what industries?
- What are their rates of injury, illness, and disability?
- What proportion undergo appropriate pre-placement or surveillance evaluations?
- How many correctional institutions retain industrial hygiene or occupational medicine professionals?
- What states provide workplace protections, including occupational safety enforcement and workers' compensation?
- Inmates live and work in an environment that is materially deprived, socially isolated, where supervisors and coworkers are sometimes adversarial or even violent.[37] What are the specific occupational hazards of the carceral workplace?

Here we see a wealth of compelling, unanswered questions, and a chance to apply the fundamentals of workplace health to an entirely novel setting.

If we look, there are fascinating models for success. For example:

- The Minnesota Department of Corrections partners with a local labor union to train inmates as welders. They earn their welding certifications, build some really incredible things, and the union reserves 10% of positions for inmates following release.[38]
- The Soledad Prison trains inmates to be workplace safety officers within their prison industries program. Almost 300 have completed the course and many of them have been hired to jobs in occupational safety after release.[39]
- Inmates in Chino, CA are trained as underwater riggers and welders. Those who finish are highly specialized tradesmen and demonstrate a 6% recidivism rate, compared with a 60% average across the rest of the state.[29,40]

But in each of these programs, where are the physicians?

A mentor once counseled me that in order to make a real change, one must look 3 to 5 years in the future and create the research that will be needed then. We have recently seen such politically disparate individuals as Bernie Sanders, Newt Gingrich, the American Civil Liberties Union, and the Koch brothers working together to find a better approach to criminal justice. I expect that in 3 to 5 years we will see a renewed, bipartisan momentum to fix our prison system, and at that time the decision makers will ask: ''What are inmates doing all day?,'' ''Is this safe?,'' ''Shall we stop them from working?,'' and unavoidably, ''Are inmates slaves?'' Occupational Medicine will be ready to say ''Sort of, but it's all about the working conditions. See our research.''

And why us? Because Occupational Medicine physicians have spent the past century establishing themselves as experts in workplace health, and there is no medical specialty that better understands the clinical application of government policy or how to balance the needs of a worker, their company, and the state. There are moments in our past where OEM professionals have changed the course of history, but without our engagement, major decisions about work and health will be made by corporations, prison administrators, lawyers, or (heaven forbid) politicians.

I'm not suggesting silk sheets and steak dinners for inmates, and our physicians don't need to overturn 200 years of criminal justice tradition, but even if this country would prefer to punish rather than rehabilitate, this is what we can say as physician advocates of the workplace: there is nothing about the commission of a crime that condemns you an unsafe work environment.

AN APPEAL TO ACOEM

I need help to compose a position paper that will outline an increased attention to inmates as workers, worthy of a workplace as safe as our own, and in urgent need of the research to inform intervention. Within this organization lies the experience to navigate systems, to mentor research, and open doors. To that end, I bring you a familiarity with an esoteric literature, a couple novel ideas, and the energy of a newly graduated physician to drive our efforts as far as you will let me.

Finally, leaders of this organization have talked about reviving the moral authority of our organization, and in doing so, you have given this recovering surgeon plenty to be passionate about. Work is work, workers are workers, and just as our foremother Alice Hamilton spent a lifetime seeking out the most downtrodden of laborers, we have a responsibility to use our professional expertise and social position to uphold the safety and dignity of all workers, regardless of their setting, occupation, or social status. In doing so, we may truly become the physicians described in our vision statement, championing '' the health and safety of workers, workplaces, and environments.''[41]

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