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Research paper

Mapping factors associated with deaths in immigration detention in the United States, 2011-2018: A thematic analysis



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ABSTRACT

Background: Climate change, poverty, and violence increasingly drive migration to the United States. United States Immigration and Customs Enforcement (ICE) detain some individuals while awaiting determination of immigration status or potential deportation. Over the last two decades, more than 200 individuals died in ICE detention. In this study, we aim to identify systemic issues related to deaths of individuals in ICE detention to potentially mitigate further harm.

Methods: The ICE Office of Detention Oversight conducts investigations after each death in detention, producing a report called a "Detainee Death Review". To identify systemic issues in these deaths, we used thematic analysis to review 55 Detainee Death Reviews available between 2011 and 2018.

Findings: We identified 3 major themes of pervasive issues—Detainee Not Patient, System Over Patient, and Grossly Substandard Care— and 11 subthemes. Subthemes of culture of shortcuts, delays in care, and poor care delivered were present in the vast majority of cases. Subthemes bias and discrimination, language injustice, falsification of and inconsistencies between records and reports, willful indifference, security over health, communication breakdown, inadequate resources, failure of protective mechanisms, missing/ignoring red flags, and failure of emergency response were also prominent.

Interpretation: This study identified underlying systems issues within the medical care provided in ICE detention. While there are issues with language services, discrimination, and inadequate response to medical emergencies, the greatest issue is the lack of independent, external review. Greater transparency is required, so that adherence to basic standards of care for individuals in ICE detention can be better evaluated.

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Research in context

Evidence before this study

We searched PubMed for studies evaluating deaths in immigration detention in the United States. Keywords included (deaths) AND (immigration detention) AND (United States). We identified a total of 12 relevant papers. We reviewed the references of these papers to uncover additional relevant citations, uncovering a total of 16 additional reports in press and grey literature relevant to deaths in ICE detention. Of the 12

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publications identified via PubMed, seven discussed deaths in ICE detention, including a paper recently published by our research group

A review of causes of death in ICE detention from 2004 to 2014 noted an improvement in mortality rate during this period, with most deaths resulting from cardiovascular disease, cancer, and suicide. However, mortality rates increased between fiscal years 2018 and 2020 despite a declining population in detention—with the majority of fiscal year 2020 deaths resulting from COVID-19 or suicide. Our research group found that 55 of 71 deaths in ICE detention between 2011 and 2018 occurred among a relatively young population, many without significant co-morbidities. Eight of these deaths resulted from suicide, while the remainder resulted

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from a medical cause. Investigations into these deaths identified that ICE had violated their own medical care standards in the vast majority of cases. One publication confirmed that the suicide rate in 2020 was 11 times higher than the prior 10-year rate. Two publications highlighted the need for improved care of individuals living with HIV in detention, one based on expert consensus and the other based on review of a single death. Two remaining publications reviewed detention health with mention of deaths in detention but presented no new analyses of data. Grey literature based on analyses of smaller case series and press reports dating back to 2009 highlight systemic issues related to deaths and care in ICE detention. Previously identified issues include inadequate medical care, delays in access to care, inadequate access to medication, mental health services, emergency care, and psychiatric care, among other issues.

Added value of this study

This is the largest qualitative review of deaths in ICE detention published to date, including 55 of 71 deaths that occurred between 2011 and 2018, utilizing a systematic qualitative approach. Our findings can be used to generate policy intervention recommendations based on systemic issues identified across a large number of deaths. This study also confirms that, despite multiple calls for improved health care in ICE detention since 2009, potentially preventable deaths have continued to occur.

Implications of all of the available evidence

Systemic failures in health care provision in ICE detention have likely contributed to dozens of deaths over the past two decades. Despite an initial decline in mortality rate in these facilities, death rates have once again risen during the COVID-19 pandemic. In order to prevent further deaths, policy interventions are urgently needed.

1. Introduction

Between 2003 and 2020, over 200 individuals died in United States Immigration and Customs Enforcement (ICE) detention [1–3]. Organizations including the United States Department of Homeland Security's Office of the Inspector General, Human Rights Watch, the American Civil Liberties Union, and the Southern Poverty Law Center and others have raised concerns that substandard medical care has contributed to deaths in ICE detention centers [4–9]. These reports, resulting from site visits, expert review of limited case series of deaths as well as witness testimony highlight poor hygiene, failures of intake screening processes and interpretation of medical data, inappropriate use of solitary confinement, as well as sub-optimal responses to medical and psychiatric illness [5,7,9].

Characterizing the extent of systems issues impacting the health and healthcare of individuals held in ICE detention centers is challenging; individuals in ICE custody are housed in a variety of facilities, and within these facilities, medical care is provided to individuals by a variety of entities. These facilities include contract detention facilities which are owned and operated by private corporations such as CoreCivic or the Geo Corporation and associated service processing centers which are owned and operated by ICE but utilize contractors to provide many services on site including security and transportation. Additionally, facilities run by city and county jurisdictions may contract with ICE via intergovernmental service agreements in order to house individuals in a proportion of their facilities beds [7]. Most individuals detained by ICE receive

healthcare from employees of private health agencies who contract with ICE, while a quarter receive care from ICE Health Service Corps, which is staffed by the US Public Health Service [10]. In addition, ICE refers individuals requiring specialty care to outside facilities as needed and, when necessary, activates emergency services should an individual suffer from an acute illness requiring hospitalization or emergency care [11,12]. Most facilities have onsite provision of basic health care via an infirmary, staffed by an advanced practice provider and/or physician and nursing staff [11,12]. ICE Performance Based National Detention Standards (PB-NDS) are applied across all types of detention settings, with quality assurance often subcontracted to privately owned vendors [10].

While granular assessment of the quality of care in ICE detention centers is difficult given the heterogeneity of the systems involved and lack of reporting by ICE, there are summary statistics available for those who died in ICE detention. Of those individuals who died between 2011 and 2018, a majority immigrated from Latin America, had low rates of pre-existing disease, and died a median of 39 days after entry into ICE custody [13]. Although death rates among individuals in ICE detention decreased for a period following implementation of the 2008 PBNDS, recent studies demonstrated that death rates have increased over the past year [14,15]. Mortality in ICE detention increased dramatically between fiscal years 2018 and 2020 [15], and rates of suicide in 2020 were 11 times the suicide rate for the prior 10 years [16]. In other healthcare systems, root cause analysis clarifies whether patient harm resulted from individual error or systems issues. However, barriers in accessing data and ICE medical and security staff limit the ability of researchers to use root cause analysis to understand factors associated with deaths in detention [17,18]. Thus, systematic studies identifying specific factors leading to poor health outcomes and deaths in ICE facilities are limited. A qualitative, inductive approach allows for themes in the description of care provided to emerge from available death reviews. In order to explore systemic issues involved, we conducted an inductive, qualitative thematic analysis of ICE Detainee Death Reviews for 55 of 71 deaths that occurred between 2011 and 2018, in order to identify systemic issues amenable to policy interventions [19-21].

2. Methods

2.1. Data

The United States ICE Office of Detention Oversight conducts investigations after each death in detention, producing a report called a "Detainee Death Review" (DDR), DDRs, completed in most cases by private, non-physician contractors, involve reviews of medical records, security logs, surveillance footage, as well as interviews with medical and security staff and other detained individuals. Resultant reports range in length from 12 to 188 pages and include names and dates of birth of the deceased, country of citizenship, immigration history, criminal history, medical and psychiatric history, and summarize circumstances surrounding the death [12]. All DDRs on deaths between 2011 and 2018 available at the time that our data extraction was completed were included in this study, resulting in a review of 55 DDRs consisting of 2891 pages. DDRs were obtained via a combination of the official Department of Homeland Security ICE Freedom of Information Act (FOIA) website and from civil rights organizations [12]. While FOIA requests for additional DDRs during the study period were submitted not all DDRs were provided at the time of study completion. We did not include "Death Reports" that have been released since the 2018 Department of Homeland Security Appropriations Bill required timely reporting of deaths among those in ICE detention, as these reports are brief (2 to 5 pages in length), lack detail of clinical care pro-

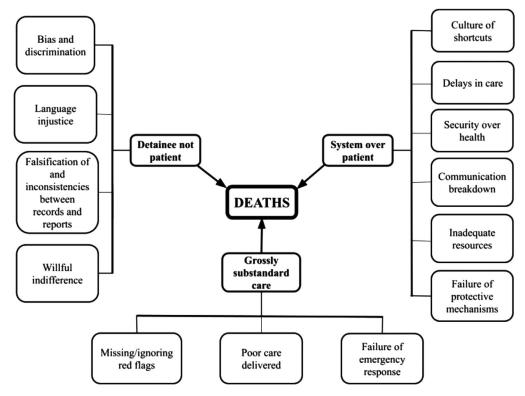


Fig. 1. Thematic map, deaths in ICE detention.

vided and are not detailed enough to provide adequate data for a comprehensive qualitative analysis [22].

2.2. Approach

We used constructivist thematic analysis methods as outlined by Braun and Clarke to examine government records and explore circumstances surrounding deaths in ICE detention between 2011 and 2018 [23]. Documents were reviewed in PDF format and imported into Dedoose to facilitate collaborative coding [24].

Initially, the entire research team reviewed all DDRs to gain familiarity with the dataset. Next, PP and MR open-coded the dataset with initial codes, which were subsequently reviewed by the entire team. After theme development, PP, MR, and EB re-reviewed the coded dataset as a whole and narrowed initial themes, developing a preliminary thematic map. To refine this map, PP and MR each independently re-coded 10% of documents with revised themes in three iterative rounds. A pooled Kappa was calculated at each round with comparison of coding for agreements, consensus building, and theme redefinition before the next round, with an excellent final pooled Kappa (0.83) [25,26]. This proposed thematic map underwent final revisions by the entire research team. The final thematic map (Fig. 1) contains 3 themes and 11 subthemes (see online appendix for definitions). The dataset was then re-coded with the codes from the final thematic map by PP and MR. The frequency that subthemes were identified within the DDRs and examples of situations that highlighted issues identified are presented in Tables 1-3.

Investigators in this study include attending emergency physicians with greater than a decade of experience working with incarcerated and immigrant populations (PP, ST, EB), senior emergency medicine residents with several years of experience in asylum and detention health (MR, MG), and an attorney with extensive expertise in immigration law (NF). To improve reflexivity and trustworthiness — qualitative analogues of validity — the team communicated at least weekly during the analysis [27]. Memoing was con-

ducted after each meeting and an audit trail was maintained [28]. We were unable to conduct member-checking due to the nature of the documents and the deaths of each of the individuals described in the study. This study was deemed exempt by the University of Southern California Institutional Review Board as all information is publicly available.

Role of the funding source

This study was funded by the Haas Jr. Fund and by the University of Southern California's Equity Research Institute. The donors had no role in study design, collection, analysis, interpretation of data or writing of this report, or in the decision to publish this data. All authors had full access to this data.

3. Results

Three major themes were identified: Detainee Not Patient (viewing an individual primarily through the context of their detention), System Over Patient (structural barriers in the detention system prioritized over an individual's health needs) and Grossly Substandard Care (delivery of markedly substandard health care). We identified 11 subthemes, which mapped to the three major themes (Fig. 1). Subthemes bias and discrimination, language injustice, falsification of and inconsistencies between records and reports and willful indifference mapped to Detainee Not Patient. Subthemes culture of shortcuts, delays in care, security over health, communication breakdown, inadequate resources and failure of protective mechanisms mapped to System Over Patient. Subthemes missing/ignoring red flags, poor care delivered and failure of emergency response mapped to Grossly Substandard Care. Full theme definitions and codebook are available as an online appendix (Appendix 1).

Table 1Subthemes, frequency of subthemes and examples of detainee not patient.

Subtheme and Frequency **Bias and discrimination** 7/55 DDRs (13%)

Language injustice 21/55 DDRs (38%)

Falsification of and inconsistencies between records and reports 10/55 DDRs (18%)

Willful indifference 14/55 DDRs (25%) Examples from DDRs

"RN described [the patient] as uncooperative when questioned about his back pain, and stated that at the time he thought [the patient] "might be playing games" to get narcotic pain medication."

"RN stated he asked [emergency medical] responders if another dose of epinephrine would be administered, to which the paramedic replied the medication would not be "wasted" on this type of patient."

"LPN XXXX encountered [the patient] during her nursing rounds. Use of interpretation assistance was not documented....she observed [the patient] give a "thumbs up" when asked about how he was feeling, and based upon her observations decided to remove him from his physician ordered medical observation status."

"[Detention facility] management stated that the Interpretalk service employs translators that speak Mixteco Bajo. Given [the patient's] ongoing, unresolved symptoms, it would have been reasonable to expect [the detention facility] to take steps to arrange for a Mixteco Bajo interpreter. However, there is no evidence that this ever occurred."

A licensed vocational nurse charted that an individual was "normal in his appearance and his movement was not restricted." While the DDR later noted "ODO" noted Officer XXXX, who booked [the individual in detention] into [the detention facility], stated during his interview he remembered [the individual in detention] having a clearly observable oversized abdomen. The surveillance video of [the individual in detention's] admission into [the detention facility] also clearly shows the detainee had an obvious and unnaturally large abdomen. Deputy XXXX, who was posted to [the individual in detention's] housing unit, stated during his interview with ODO that he remembered [the individual in detention] appeared to have a difficult time walking around due to severe swelling in his legs and feet."

"Investigator concluded [the individual in detention] committed suicide at some point after the 1:15 p.m. count on April 30, 2013, while his cellmate was in the library; Officer XXXX did not conduct the security check that he logged at 1:35 p.m."

"Officer XXXX immediately asked Officer YYYY to call a medical emergency on his radio, telling him [the individual in detention] was having a heart attack, but Officer YYYY refused...Officer XXXX asked a second time, and Officer YYYY again refused, so Officer XXXX asked for the radio to call the emergency herself, but Officer YYYY refused to give it to her...at the same approximate time, video surveillance footage shows Officer YYYY walk to the back of the dorm and change the channels on the dorm television."

"However, the surveillance footage also clearly shows officers walked quickly by each cell, including [the individual in detention's], without pausing to see if any detainees were in need of assistance. This supports [the individual in detention's] assertion to ODO that officers quickly walked by his and [the individual in detention's] cell during the time he claimed he was trying to get their attention as they made rounds. Further, although the surveillance footage indicates that CO XXXX responded to [the individual in

detention] during the 2:00 a.m. detainee count, and that CO XXXX returned to...[the individual in detention's] cell door three times after CO XXXX initial response, neither CO is seen entering the cell to personally observe [the individual in detention's] condition."

 Table 2

 Subthemes, frequency of subthemes and examples of system over patient.

Subtheme and Frequency Culture of shortcuts 55/55 DDRs (100%)

Delays in care 52/55 DDRs (95%)

Security over health 22/55 DDRs (40%)

Communication breakdown 41/55 DDRs (75%)

Inappropriate resources and training 41/55 DDRs (75%)

Failure of protective mechanisms 23/55 DDRs (42%)

Examples from DDRs

"Providers did not consistently perform adequate physical examinations prior to administration of treatment, including taking the patient's vital signs and assessing symptoms. In addition, the patient was not examined by a physician...despite becoming increasingly medically unstable."

"CO XXXX did not count the detainees going to dinner...[and] did not know [the individual in detention] remained in her cell. Had CO XXXX known and informed CO YYYY that [the individual in detention] had stayed behind during dinner, a reasonable person would likely conclude that CO would have probably checked on her ... Instead, [the individual in detention] had an unsupervised 27 min window of opportunity to take her own life."

"[the patient's] medical record documented repeated instances where delivery of care was delayed. Specifically, results of lab tests ordered by [the detention facility] were not reviewed by a physician in a timely manner, follow up appointments were not scheduled as ordered by facility physicians, vital signs were not monitored when indicated, and initiation of medication was delayed. Most critically, the patient was not examined by a physician and was not transferred to the hospital for approximately eight hours after being determined to be medically and mentally unstable..."

"Specifically, [DDR authors] determined the [detention facility] failed to grant medical staff access to [the patient] to obtain vital signs, allowed security staff to override medical staff determinations, failed to assess a complaint of abdominal pain by [the patient] during intake screening, and failed to provide [the patient] with an administrative segregation order when he was placed into the [segregation holding unit]. Additionally, an officer monitoring [the patient] in the hours prior to the medical emergency did not notify medical staff that [the patient] was disoriented, agitated, and on the floor."

"Nurse XXXX could not recall if he considered informing Dr. YYYY that the detainee was dehydrated. He commented that Dr. YYYY could be difficult to reach when he is not in the office, estimating that the physician does not answer two out of every five phone calls placed....that he returns only 50% of missed calls....Nurse XXXX states that he has never been able to reach Dr. YYYY on his home phone."

"At approximately 4:32 p.m. [ICE Staff] completed a transfer summary for [the patient] for his transfer to [the detention facility], scheduled for that same day. [ICE Staff] noted that [the individual in detention] had no special needs...that could affect his transfer. [ICE Staff] listed all of [the individual in detention's] current medications and noted [the individual in detention] had a history of cirrhosis for eight years but did not list his pancytopenia, depression... [ICE Staff] also did not include the pending referrals for hematology, ophthalmology, and radiology or copies of the laboratory results or the most recent chronic care records with the transfer summary."

"RN stated she could not interpret the findings on the EKG performed on the Welch Allyn machine. Clinical health services staff should be able to interpret any abnormalities on the tracing of the EKG which could identify a patient was having an acute heart attack. RN also stated in the past the EKG could be faxed to the institution's physician on call and/or a cardiologist for interpretation of the EKG. RN stated that presently no provision had been made to proceed with this process of faxing."

"ODO was informed by many members of [the detention facility's] medical staff that a high turnover rate among nurses is of great concern, particularly given an increasing population of detainees with chronic health care needs. Supervisory medical staff indicated that difficulty recruiting and retaining nurses necessitates hiring new graduates with minimal experience."

"Interviews with Officers and Lieutenant XXXX pointed to a tension between security and health care staff. The officers reported that when they bring detainee medical issues to nurses' attention, they are typically told to tell the detainee to submit a "kite", referring to a written request. Lieutenant XXXX stated he has been frustrated with medical/security relations "for a long time." He shared that he gets a call from an officer almost every night stating a detainee needs to be seen but medical will not come to the unit."

^{*} ODO refers to the ICE Office of Detention Oversight

Subthemes, frequency of subthemes and examples of grossly substandard care.	
Subtheme and Frequency	Examples from DDRs
Missing or ignoring red flags	"[ICE RN] documented that she provided [the patient] with one liter of water and instructed him to take slow deep breaths
44/55 DDRs	She stated that during the evaluation, [the patient] talked about his family and seemed distressed about not being able to reach
(80%)	them. He also expressed concern about missing either a court date or a meeting regarding his release. RN stated that his high
	blood pressure, in conjunction with his expressed concern about reaching his family and getting released, led her to believe that he was having an anxiety attack."
	"RN documented that [the patient] sat in a wheelchair during the visit with her head hanging down, was crying, and she said
	she was very worried about her health because it was getting worse, and that her pain was very bad. RN noted she encouraged [the patient] to take deep breaths, and to think positive thoughts, including thoughts about her great vital signs."
Poor care delivered	"The assumption that the persistent rectal bleeding was as a result of hemorrhoids was inaccurate. This patient's clinical course
52/55 DDRs	was typical of a patient with inflammatory bowel disease requiring urgent colonoscopy to confirm the diagnosis and treat the
(95%)	patient. There appeared to be no urgency in conducting a colonoscopy after the need was finally identified"
	"[the patient's] medical recorddoes not demonstrate "an overall treatment plan with measurable goals and objectives" was
	ever developed for her. Additionally, [the patient's] medical record does not contain any "documentation of communication with
	ICE concerning her treatment or exploration of alternative placement until shortly before her death [from suicide] [the
	individual in detention] was detained at [the detention facility] from April 14, 2011, to October 23, 2013, and was housed in
	segregation for a substantial amount of the time she was detained at the facility due to her behavioral issues and associated mental health concerns."
Failure of emergency response	"[the physician] stated he made the decision to transport [the patient] to the hospital via [facility vehicle] rather than an

45/55 DDRs (82%)

n an ambulance because he is always respectful of financial resources."

""At 0620 h medical informed that 911 needed to be called in order to have detainee taken to [local hospital] for additional treatment." On interview, he stated this direction was given when he called the nursing station to get a status update on the transport of [the patient] to the ER. He stated he spoke with LPN who instructed him to call 911. This was 30 min after an order was obtained from Dr.XXXX to send the detainee to the emergency room and approximately 50 min after the detainee arrived in the trauma room. Lt. YYYY stated in retrospect it "bothered" him it took so long to send the detainee out."

3.1. Detainee not patient

DDRs highlight numerous instances where ICE medical and security staff, and on occasion emergency medical services (EMS) or receiving emergency department/hospital staff, acted in a manner that suggested a lack of consideration for the deceased individual's needs and rights as a patient, and their own roles as caregivers. Excerpts from DDRs that exemplify this theme and related subthemes are included in Table 1.

3.1.1. Bias and discrimination

Multiple examples of biased and discriminatory behavior were identified in reviewed DDRs. These included bias against detained individuals perceived to be malingering or drug-seeking, to be chronic complainers, or to have a history of abuse of illicit substances. Individuals deemed by staff to be exaggerating their physical complaints for secondary gain often had signs of serious medical illness dismissed and essential medical care delayed or denied entirely on our review, ultimately contributing to potentially avoidable deaths. In some cases, evidence of bias and discrimination among EMS and/or receiving hospital staff was presented.

3.1.2. Language injustice

DDRs frequently cited a lack of use of language interpretation for individuals not fluent in English in the days and weeks leading up to their deaths. Health providers and ICE staff often did not use in-person or telephone interpretation services when evaluating detained individuals for medical complaints. They were noted to use English, hand gestures, or informal interpretation by security staff or other detained individuals. Individuals in detention were noted to have been asked to sign forms or read materials in languages in which they lacked proficiency. In certain cases, discussions regarding refusals of essential services or medications did not involve use of a qualified interpreter.

3.1.3. Falsification of and inconsistencies between records and reports DDRs described instances of falsified records or inconsistencies

between reports of individuals and/or written accounts. Though some inconsistencies identified were minor, many directly impacted health of the detained person. For example, several DDRs described inconsistencies in the medical record, with some records describing the deceased as having a normal medical and psychiatric evaluation, while others suggesting the same individual was in serious medical or psychiatric distress prior to death.

Falsification of records occurred most often in the context of security rounds; officers charged with performing checks on detained individuals with specific intervals falsely logged completed rounds that a review of security video footage later did not confirm. In several of these instances, death occurred during the period when a falsified or perfunctory security check was logged.

3.1.4. Willful indifference

Both medical and security staff were noted in multiple DDRs to have denied care or ignored the needs of the deceased prior to their deaths. This includes instances of medical staff refusing to evaluate detained individuals when requested (for reasons not related to resources or availability), overtly ignoring the needs of individuals in serious distress, and medical and security staff intentionally disregarding a detained person's repeated calls for help.

3.2. System over patient

DDRs highlighted multiple barriers at the ICE health system level that may have contributed to morbidity and mortality. Examples of this theme and related subthemes are included in Table 2.

3.2.1. Culture of shortcuts

Medical and security staff were often noted to "take shortcuts", resulting in what appears to be a culture of doing the bare minimum. Among medical staff, this included skipped measurement or documentation of vital signs, incomplete physical exams during medical evaluations, delayed or inappropriately conducted screening processes, failure to complete documentation of refusals of care, provision of insufficient medical care, and limited or nonexistent reevaluation of patients requiring ongoing care for concerning conditions. Among security staff, identified shortcuts involved performing perfunctory security checks or not performing security checks at all, leaving one's post without being properly relieved, or not assisting appropriately with a medical response. This pervasive culture overlapped with other health systems issues described below.

3.2.2. Delays in care

We identified a variety of delays in the provision of health care. The first level of delays occurred with regards to provision of nonemergent health care inside detention facilities. Our review found that some detained individuals with chronic care needs did not receive evaluations by ICE health providers in a sufficient timely fashion to ensure appropriate management of their disease and to avoid preventable complications. Further, records revealed that requests to have symptoms evaluated were frequently submitted but were either not reviewed by health staff in a timely manner or, when reviewed, resulted in further delayed evaluations. A second common delay in care associated with deaths in detention involved referrals to offsite specialty care. These delays occurred due to failure of ICE staff to appropriately request or schedule evaluations, but also due to limitations in availability of transport and delayed approval by ICE. In one instance, an individual in their early forties was appropriately referred for gastroenterologist evaluation and colonoscopy for unexplained rectal bleeding, but approval was denied for two years while they continued to be increasingly symptomatic. They were finally diagnosed with advanced stage colorectal cancer once seen by the gastroenterologist, however they were unable to be cured after the delay in care.

3.2.3. Security over health

Detention center security procedures and protocols often impeded delivery of health care. Security officers prevented timely access to the cells of critically ill individuals or themselves delayed evaluating complaints of sick individuals while waiting for back-up or equipment. In several instances, detained individuals who were critically ill were placed in belly chains, handcuffs, and leg irons prior to hospital transport —restraints that were at times not removed until just prior to death. EMS responders faced delays in entering detention facilities due to facility security procedures and gates in several cases. Finally, punitive or administrative solitary confinement, also known as segregation, was noted by investigators to be associated with psychiatric decompensation or suicide in some instances.

3.2.4. Communication breakdown

A lack of communication was associated with the delivery of substandard health care and deaths. Healthcare providers in ICE detention failed to obtain not only records from previous ICE facilities or carceral centers, but also findings and recommendations from emergency room visits and specialty care appointments completed during ICE detention. A noted error was a failure to seek updated medication lists from pharmacies or health providers; in at least one case, inappropriate and delayed dosing of home medication appears to have plausibly contributed to the individual's death. Limitations in medical record systems and charting led to a lack of adequate communication between ICE health staff, such that care plans were interrupted, altered, or discontinued; in many instances, health providers attempted to provide care without a full understanding of preceding symptoms, diagnoses or the longstanding nature of complaints. Finally, nurses, nurse practitioners, and physician assistants were noted to have difficulty reaching supervising physicians when in need of consultation regarding complex or critical cases.

3.2.5. Inadequate resources

Inadequate resources, including shortages of appropriate staff, absence of protocols or training, and insufficient supplies appeared to be contributory in some deaths reviewed. Prolonged medical staffing vacancies were noted, likely exacerbating significant delays in timely evaluations. Medical screenings and other health evaluations were performed by individuals without adequate levels of

training, such as licensed vocational nurses who lacked appropriate oversight and missed critical findings. In certain cases, medications were dispensed by individuals without the necessary qualifications or supervision to do so, deviating from treatment protocols. There was a notable absence of care from physicians in several cases, with some individuals with ongoing medical complaints dying prior to evaluation by a physician or advanced practice provider (e.g., nurse practitioner or physician assistant). Limited availability of transport staff was also noted to have led to cancellation or delay of offsite medical appointments.

Further, staff expressed a lack of familiarity with basic health care protocols or standards including PBNDS. Of concern, some detention medical staff indicated lack of familiarity with basic emergency care and equipment, such as the evaluation of chest pain or operation of an electrocardiogram (ECG) machine. In some cases, appropriate protocols for the treatment of common conditions did not exist. For example, a protocol for the treatment of alcohol withdrawal was utilized for an individual withdrawing from opioids—who ultimately died from complications of opiate withdrawal. Finally, inadequate supplies, including medications and essential medical equipment (face masks for administration of CPR, oxygen tanks, etc.) were noted to have impeded the delivery of both emergent and non-emergent care.

3.2.6. Failure of protective mechanisms

Formal and informal protective mechanisms exist in ICE detention facilities. Formal processes include grievance procedures, which allow individuals in detention to raise concerns with regards to health care and other issues. Additionally, staff may report concerns to supervisors within the facility. Informal concerns may be raised by other individuals in detention or by medical or security staff. Finally, individuals in detention may ask to see a more qualified health provider (physician). Unfortunately, these mechanisms failed on numerous occasions in the cases reviewed. Requests for medical evaluation were dismissed or delayed, medical and security staff concerns were ignored, and calls for care by other individuals in detention were ignored.

3.3. Grossly substandard care

DDRs highlighted delivery of markedly substandard care across a majority of cases reviewed. Examples of this theme and subthemes are outlined in Table 3.

3.3.1. Missing or ignoring red flags

We identified multiple instances of ICE health staff ignoring early signs of critical illness, such as profoundly abnormal vital signs or symptoms suggestive of severe illness. Obvious signs of severe illness were ignored in many cases reviewed. For example, one individual who ultimately died of diabetic ketoacidosis was found, on evaluation, to have a heart rate of 174, oxygen saturation of 93%, respiratory rate of 34, and 7/10 severe chest pain; yet, the nurse evaluating him attributed these critically abnormal vital signs to an "anxiety attack". In another case, medical staff dismissed severe chest pain in a woman with known cardiac disease who died days later of a heart attack. Similar signs of severe decompensation among individuals with psychiatric illness prior to suicide were missed in a number of DDRs reviewed, including signs of worsening psychosis and depression.

3.3.2. Poor care delivered

In many cases reviewed, substandard medical and psychiatric care was delivered. Medications were inappropriately dosed, chronic conditions not appropriately monitored, and medical evaluations were completed without critical actions, such as checking vital signs or conducting physical exams. The detained individuals

were often incorrectly determined to have benign illness based on limited information. For example, a woman who ultimately died of gastrointestinal hemorrhage from colitis was assumed to have bleeding as a result of hemorrhoids, though she never had a documented rectal exam while in ICE custody. She also never had an evaluation by a gastroenterologist, and ultimately died of complications of diffuse colitis.

Appropriate psychiatric care was not delivered in multiple cases reviewed. This included a lack of clear and appropriate treatment plans, extended use of segregation for individuals at risk for psychiatric decompensation who later committed suicide, and a lack of referrals to psychiatric providers when mental health support was appropriately identified as a need.

3.3.3. Failure of emergency response

Once an emergency had been identified, the emergency responses critically failed on multiple occasions. Examples include delays in calling 911, misuse of emergency equipment, and failure to administer timely emergency care. In some cases, there was a delay in bringing appropriate equipment to the scene of a medical emergency, including automatic external defibrillators, oxygen, or cut-down tools for individuals who died of hanging. Frequently, instead of calling 911 for EMS transport, individuals in detention experiencing critical illness were taken to hospitals in ICE transport vehicles without medical staff supervision, and at times without the ability to communicate due to language barriers.

3.3.4. Exceptional interventions by staff

Though not included in our final thematic map, ICE medical and security staff advocated for detained individuals in distress on several occasions. In one instance, an individual discharged from a local emergency department with markedly abnormal laboratory studies was sent back for admission to the hospital by detention staff. In other cases, medical staff used a facility vehicle to transport a sick patient to a hospital further away, after a local hospital discharged this very ill individual back to the ICE facility. Lastly, ICE health staff accompanied a critically ill patient in an ambulance and were the primary providers of CPR when paramedic staff did not appear to be providing appropriate care.

4. Discussion

Our thematic analysis of the 55 available DDRs demonstrated multiple concerning systemic issues. We identified three major themes: Detainee Not Patient (viewing an individual primarily through the context of their detention), System Over Patient (structural barriers in the detention system prioritized over an individual's health needs) and Grossly Substandard Care (delivery of markedly substandard health care) and 11 subthemes. Subthemes bias and discrimination, language injustice, falsification of and inconsistencies between records and reports and willful indifference mapped to Detainee Not Patient. Subthemes culture of shortcuts, delays in care, security over health, communication breakdown, inadequate resources and failure of protective mechanisms mapped to System Over Patient. Subthemes missing/ignoring red flags, poor care delivered and failure of emergency response mapped to Grossly Substandard Care. These systemic issues identified contributed to potentially preventable deaths and highlight the necessity of urgent policy reform.

While this study highlights critical issues in the care of individuals in ICE detention, there are limitations to our findings related to the available data. DDRs typically contained multiple redactions, and generally supplied limited, if any, medical records, so detailed evaluation of medical care is limited. Only 55 DDRs were available for 71 deaths, representing potential sampling bias, as more egregious cases may have remained unavailable for review. Conversely,

DDRs are occasionally released in relation to litigation, thus missing data may represent cases where PBNDS were not violated. While we attempted to access remaining DDRs for deaths occurring 2011-2018 via Freedom of Information Act requests for more information, these requests have not been completed at the time of study completion. Finally, researchers were unable to obtain medical records for a comparison group. Medical records of individuals with similar medical comorbidities and demographic characteristics who did not die while in ICE detention or those who were released into communities rather than being placed in detention could have been potential comparators but were not available to our team due to privacy considerations. Future studies could be conducted in collaboration with ICE, ideally to follow cohorts of individuals released into the community and those kept in detention, for example, to identify differences in health outcomes prospectively. In addition to the limitations placed by lack of access to data, there are limitations to the generalizability of our findings given the qualitative methodology. Qualitative inquiry is inherently linked to the dataset it is derived from. Extending our findings to other individuals in detention, or at detentions sites have not occurred at will require further studies and triangulation of findings. Among qualitative methodologies, Thematic Analysis in particular does not engage in further purposive sampling to examine "negative cases". Thematic Analysis was the best choice for this study given the closed data set but limits our ability to extrapolate findings to a larger population.

Despite the limitation to data access and non-quantitative approach, our findings are important and concerning, as they suggest that existing oversight and review mechanisms have failed to result in ICE detention facilities meeting the PBNDS. Investigators noted recurrent issues leading to deaths from 2011 to 2018, signifying those vital lessons are not being learned within the system as it exists. Additionally, while the number of individuals in detention decreased in 2020 amidst the COVID-19 pandemic, deaths increased substantially—suggesting continued room for improvement for care in ICE detention [15,16]. In light of the systematic and persistent issues identified, policy interventions are needed.

4.1. Potential policy-based remedies

4.1.1. Transparent reporting and independent review boards

Independent review boards of the healthcare provided may increase accountability. These boards could be comprised of physicians and other health staff, community advocacy groups, released detainees and/or their family, in continuous oversight of ICE facilities. If established, these review boards should be able to conduct unannounced visits including interviews with individuals in detention and the opportunity to review medical records. This would allow for better accounting of the quality of care provided. Currently, the view into healthcare in ICE facilities is opaque. As stated by immigration detention scholar Emily Ryo, relevant data is "shrouded in secrecy and bureaucratic barriers that obstruct researchers' access to government data and detention facilities [18]." Though the 2018 Department of Homeland Security Appropriations Bill mandates that death reports be released, current death reports released by ICE under this law are substantially different than DDRs. These death reports are shorter, lack detail, and are also not always released within the mandated 90-day period [1]. Independent review boards should have timely access to full DDRs. Finally, current DDRs redact both ICE and non-ICE affiliated medical and security staff names, but do not similarly protect the privacy of detained individuals. The need for transparency should be balanced with the rights of persons in detention to keep medical and psychiatric histories private [29]. Release of records to independent review boards would both hold ICE facilities accountable and respect privacy of detained individuals.

4.1.2. Zero tolerance policy for discrimination

In our dataset, individuals in ICE detention were repeatedly treated as "detainees", and not as patients when requesting medical or psychiatric care. In order to combat this problematic culture, ICE detention facilities must have a zero-tolerance policy for any discriminatory or biased behavior, falsification of records, or demonstrations of willful indifference. Staff found to violate these policies would be dismissed. Reporting mechanisms that allow individuals in detention to express concerns to an independent third party should be easily accessible in all detention facilities.

4.1.3. Improved language services access and mandatory staff training
Our analysis uncovered a concerning pattern in lack of use
of language services. All health and security staff should be required and trained to use language interpretation for all encounters. Staff must also be given the tools to easily do so, including easily and universally accessible telephone interpretation lines.
Though security staff are currently allowed to provide interpretation for detained individuals according to PBNDS, this practice
is likely to make individuals in detention less willing to disclose
sensitive medical information. Independent medical interpretation
for all individuals who primarily speak a non-English language improves quality of healthcare and should be instituted at these facilities [30,31].

4.1.4. Prompt and appropriate review of abnormal vital signs

In a majority of these death reviews, early signs of critical illness were missed, including markedly abnormal vital signs that were ignored by health staff. In many cases, emergency response mechanisms failed. A potential remedy for this issue is for individuals in detention with grossly abnormal vital signs to be seen promptly and within a reasonable timeframe by qualified medical personnel. Where there is uncertainty or such a provider is not available, emergency transport could be initiated immediately. Facility level emergency drills simulating responses to healthcare emergencies could also be conducted routinely in all facilities as a condition of maintenance of their contract.

As climate change, violence and poverty continue to drive migration from Latin America and other regions to the United States, many individuals continue to be exposed to detention in ICE facilities [32]. Our review of deaths in ICE detention highlights multiple risks to individuals detained by ICE. We call on the current administration to increase transparency and release of data, so that accountability to basic standards of care for individuals in ICE detention can be better evaluated.

Data sharing statement

A majority of the data analyzed is publicly available at https://www.ice.gov/foia/library. Additional death reviews are available via the BuzzFeed and Project for Government Oversight websites. For additional records, please contact the United States Immigration and Customs Enforcement Office. Freedom of Information Act request may be required.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.lana.2021.100040.

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