

# Expanding the use of STEVE for the Local Violent Death Registration System (NVDRS)

María M. Juiz Gallego, MPHE, CHES© – Puerto Rico Demographic Registry  
Mario O. Font Martin, MP, PPL – Puerto Rico Violent Deaths Reporting System



**NAPHSIS Annual Meeting**  
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# Objectives



Share Puerto Rico's experience with the implementation of the enhanced NVDRS Internal Mailbox



Present the benefits from a Vital Records Office perspective



Describe how the implementation of an internal NVDRS mailbox for sharing specific mortality data has allowed PR-VDRS to improve their work processes



Promote replication in other jurisdictions

# Context and Motivation

Improve the mortality data exchange with local VDRS

Collaboration between NAPHSIS and CDC NVDRS

STEVE's potential to enhance the mortality data exchange with the local VDRS

# The National Violent Death Reporting System (NVDRS)

Collects information about violent deaths including homicides, suicides, unintentional firearm deaths, deaths of undetermined intents that may be due to violence, and deaths caused by legal interventions.

*NVDRS uses information from:*

**Death certificates**

**Coroner/medical examiner reports  
(including toxicology)**

**Law enforcement reports**

# The National Violent Death Reporting System (NVDRS)

- Currently, all 50 U.S. states, the District of Columbia, and Puerto Rico submit data into NVDRS.
- NVDRS includes information about victims and incidents through various variables such as:
  - Age
  - Sex
  - Race
  - Cause of death
  - Circumstances
  - Weapons
  - Toxicology
  - Among others

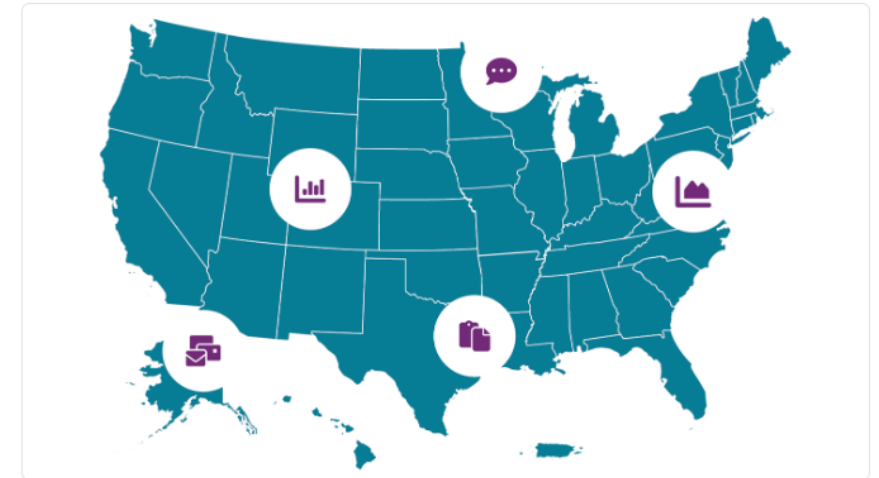
## NVDRS State Profiles

NVDRS was created in 2002 and began collecting data from six states. By 2006, 17 states were participating, and today NVDRS is implemented in all 50 states, the District of Columbia, and Puerto Rico.

Newer NVDRS states may not yet have available data, as they are in earlier stages of data collection. If data are not yet available for your state, you can still use the NVDRS data to better understand general patterns of violent deaths in participating states. However, keep in mind that NVDRS data are not nationally representative. We do not yet have a complete picture of violent death across the nation.

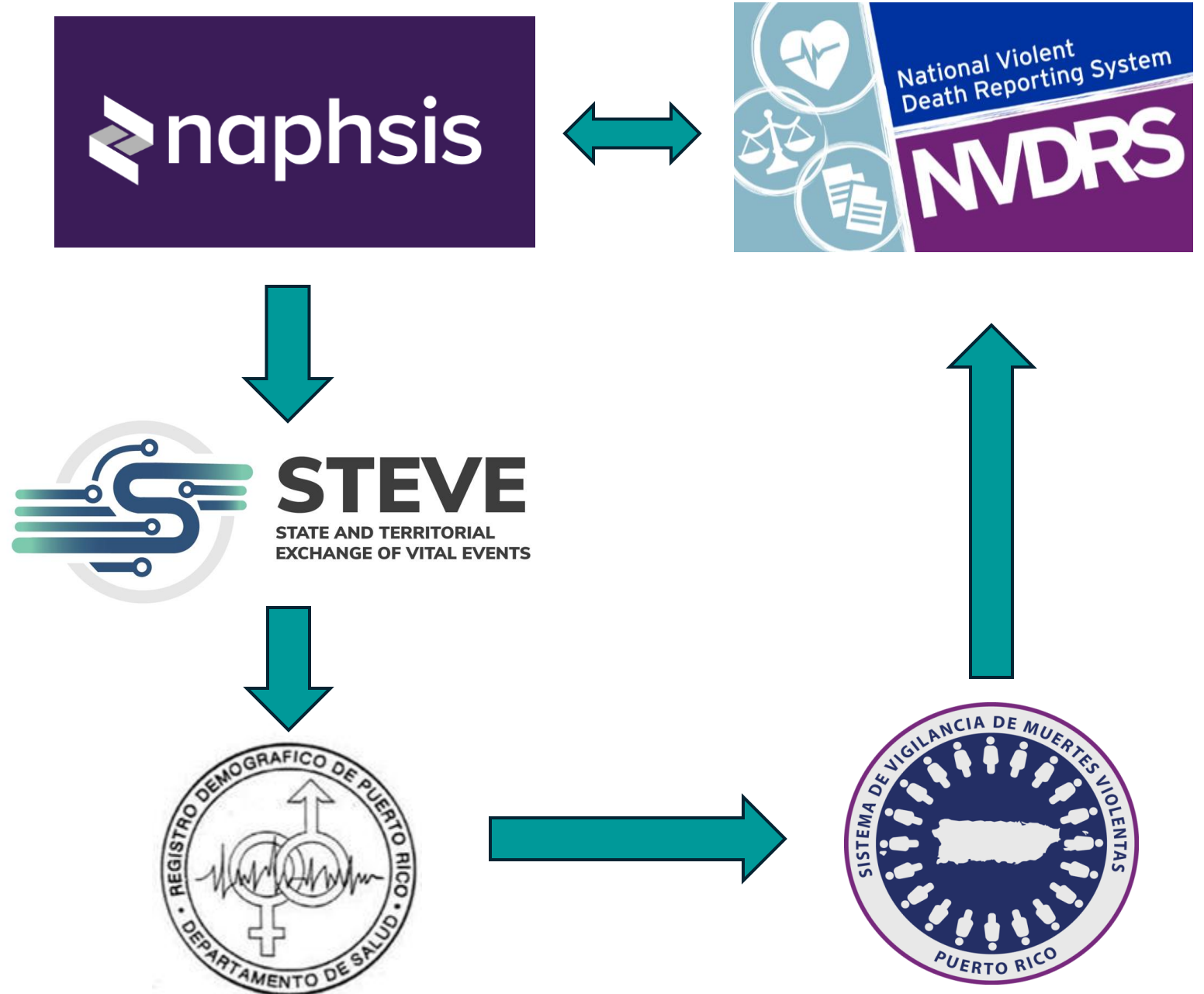
The recent expansion of NVDRS to include all 50 states, the District of Columbia, and Puerto Rico will allow CDC to provide information to inform violence prevention efforts in each area. It will also ensure we have enhanced information on the national scope of the problem of violent deaths to monitor and track trends and to inform national violence prevention efforts.

[View Larger](#)



The NVDRS spans all 50 states, the District of Columbia, and Puerto Rico.

Through the partnership between NAPHSIS and the CDC National Violent Death Reporting System, NAPHSIS started a project to enhance STEVE to help vital records offices share data with their local Violent Death Reporting System.



# **NAPHSIS STEVE User Group**

**Monthly meeting to discuss updates, enhancements, and ideas related to the maximum functionality of STEVE.**

**NAPHSIS Staff Lead:**

**Caprice Edwards**

**[cedwards@naphsis.org](mailto:cedwards@naphsis.org)**

## **Focus group:**

- Identify current processes used by jurisdictions to share the specific mortality data with their local VDRS.

## **Findings:**

- Each VRO was working the project with their local VDRS counterparts in a variety of forms.
- Common ‘wish list’ items were:
  1. Create custom filtering/routing rules for each jurisdiction as it relates to what is considered “violent deaths” by their local VDRS, enabling these files to be delivered to local VDRS mailboxes.
  2. Files in CSV format.





# PR-VDRS Mailbox

Discuss the filtering process with **PR-VDRS**  
(cause of death key text words, manner of  
death, and **NVDRS ICD-10** codes)

Puerto Rico provided the filtering criteria to  
**NAPHSIS/STEVE** programmers

Puerto Rico **VRO** conducted testing with  
**NAPHSIS/STEVE** programmers  
Mock data **IJE MOR** file / reviewed test file  
transmissions

**Approved**

Live since February 2024

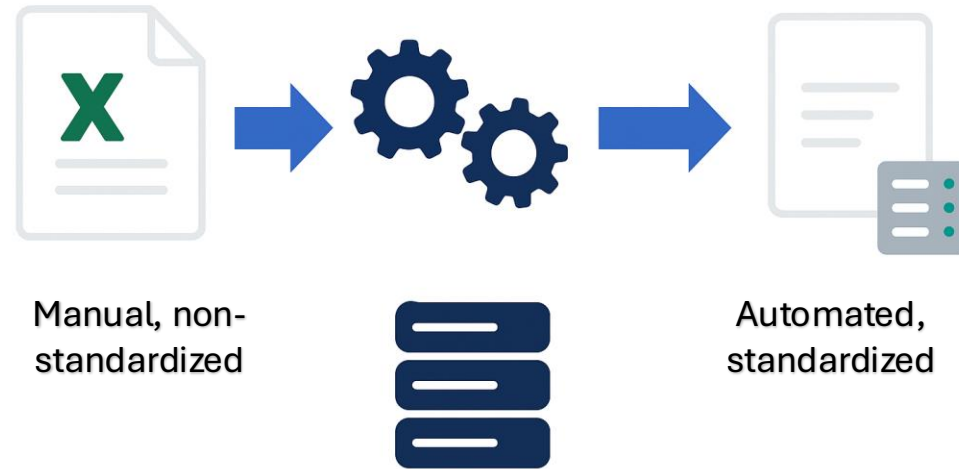


## Logic

1. If manner of death is **P** – record gets selected, or
2. If manner of death is **A/S/H/C** and in keyword list – record gets selected, or
3. If manner of death is **A/S/H/C** and in ICD-10 list – record gets selected



# Result



State and Territorial Exchange of Vital Events V2.0  
developed by NAPHSIS

195

## Mailboxes

STEVE / Mailboxes

Send a File

- APPROVED RESEARCH (IJE MAILBOX) (Natality)
- APPROVED RESEARCH (IJE MAILBOX) (Mortality)
- APPROVED RESEARCH (IJE MAILBOX) (Roster)
- APPROVED RESEARCH (IJE MAILBOX) (FetalDeath)
- APPROVED RESEARCH (INTERNAL MAILBOX) (Mortality)
- APPROVED RESEARCH (INTERNAL MAILBOX) (FetalDeath)
- APPROVED RESEARCH (INTERNAL MAILBOX) (BirthInfantDeath)
- APPROVED RESEARCH UPR CCC (Mortality)
- CHILD HEALTH REGISTRY (IJE MAILBOX) (Natality)
- CHILD HEALTH REGISTRY (IJE MAILBOX) (Mortality)
- CHILD HEALTH REGISTRY (IJE MAILBOX) (Roster)
- CHILD HEALTH REGISTRY (IJE MAILBOX) (FetalDeath)

### National Violent Death Reporting System (Internal Mailbox) (Mortality)

Check for new Files Show Unread Download All Unread Delete All Read

696 unread of 1346

<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR24481A.MOR.csv	read	12 records	Today at 12:00 AM	
<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR24481A.MOR	read	12 records	Today at 12:00 AM	
<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR25124A.MOR.csv	read	14 records	Yesterday at 11:50 PM	
<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR25124A.MOR	unread	14 records	Yesterday at 11:50 PM	
<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR25123A.MOR.csv	read	10 records	Yesterday at 12:40 AM	
<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR25123A.MOR	unread	10 records	Yesterday at 12:40 AM	
<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR25122A.MOR.csv	read	13 records	Last Saturday at 11:50 PM	
<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR25122A.MOR	unread	13 records	Last Saturday at 11:50 PM	
<input type="checkbox"/>	steve2.rd@salud.pr.gov	PR25121A.MOR.csv	read	11 records	Last Friday at 11:50 PM	

# Puerto Rico VRO Journey with PR-VDERS

**2017-2020**

No EDRS (paper certificates & SuperMICAR).  
Significant delays updating *Pending* COD records.  
Manual TRP/TRX file update process and IJE MOR file transmissions.  
Weekly IJE MOR (Death-demo)

Annual mortality data file with the records that had the required ICD-10 causes of death codes and the specific data fields.  
Manual data file in Excel.  
SFTP

**2021-2023**

EDRS implementation Jan 2021.  
STEVE Thin Client Installation.  
Daily IJE MOR file transmissions to NCHS, and later to other data partners.  
Implemented a process that added the ICD-10 codes to the daily IJE MOR file transmission.

Developed a program to extract records based on the required ICD-10 codes and manner of death with the specific data fields.  
File created in Excel once a month.  
Transitioned from SFTP to STEVE.

**2024-present**

New STEVE - NVDRS Internal Mailbox implementation - Feb 2024.  
Filtered records based upon ICD-10 codes, COD free text and MOD.  
Plain text and CSV IJE MOR file format.

Automatic daily IJE MOR file transmissions to the STEVE - NVDRS Internal Mailbox.

# Data Collection (Case Initiations)

## Before

- Visits to the Institute of Forensic Sciences of Puerto Rico.
- Through monthly reports from the Puerto Rico Police Bureau

5% of Data

## After

- Mortality data and variables received through STEVE's Internal Mailbox

40% to 50% of Data

		PR24451A.MOR				
Num. Cer Def	Var2	...	Var258	Var259	PR24452A.MOR	
	Num. Cer Def	Var2	...	Var258	Var259	
000100						
000123	000123					
000456						
.	010020	000368				
	123456	010021				
	.	134589				
	.	.				
	.	.				
	012345					PR24453A.MOR
		000456				

# Data Collection (Case Initiations)

## Data management and compilation

Num. Cer Def	Var2	...	Var258	Var259		
000100	Num. Cer Def	Var2	...	Var258	Var259	
000123		Num. Cer Def	Var2	...	Var258	Var259
000456	000123					
.	010020	000368				
.	123456	010021				
.	.	134589				
	.	.				
	.	.				
	012345	.				
		000456				



PR23Master.MORV1				
Num. Cer Def	Var2	...	Var258	Var259
000100				
000123				
000456				
010020				
123456				
012345				
003698				
010021				
134589				

CME

DC

ICD-10

Validate File

Specification

DC Birthplace Fields

DC Conversion Table

Data Year: (Required)

Incident Type for any new incidents created: (Required)

Select File [ TXT ] : (Required)

Choose File

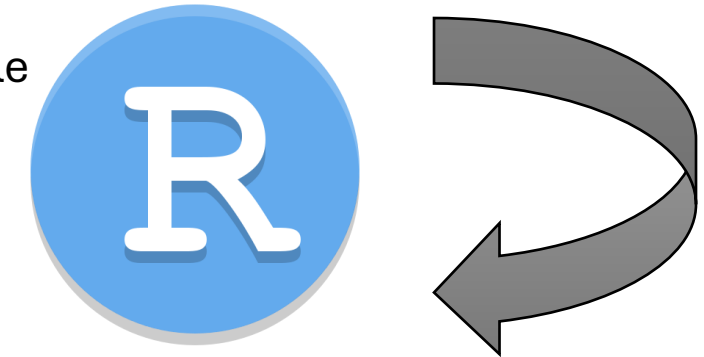
No file chosen

This import file has completed import. This import group can no longer be cancelled. The Preliminary Import Report is available for informational/historical purposes only.

If this import file continues:  
75 NVDRS incident(s) to be created  
0 NVDRS incident(s) to be updated  
0 new(s) COULD NOT be processed

- Import to SAMS

## Plain Text File



- Compile information to a Master database
- Convert file to a Plain Text file

# Data Collection (Case Initiations)

Victim Data Quality ⓘ

Incident Year	% Initiated within 90 days after death	% Initiated within 120 days after death	Median Days to initiate
2025	97.18	97.18	11
January-June	100.00	100.00	11
July-December	00.00	00.00	0
Other/Missing	N/A	N/A	0
2024	91.11	93.04	31
January-June	90.82	93.05	50
July-December	93.42	95.07	17
Other/Missing	N/A	N/A	0
2023	76.41	86.15	62
January-June	76.38	84.78	63
July-December	76.44	87.64	62
Other/Missing	N/A	N/A	0
2022	66.38	98.27	79
January-June	37.29	98.34	94
July-December	98.45	98.70	66
Other/Missing	N/A	N/A	450

**For further technical information or questions, you can also contact:**



**Cristian R. Perdomo García**  
*Statistics Project Assistant*  
PRVDRS Data Abstractor

Email:

[cristian.perdomo@estadisticas.pr](mailto:cristian.perdomo@estadisticas.pr)

# Benefits: Enhanced Data Sharing Process



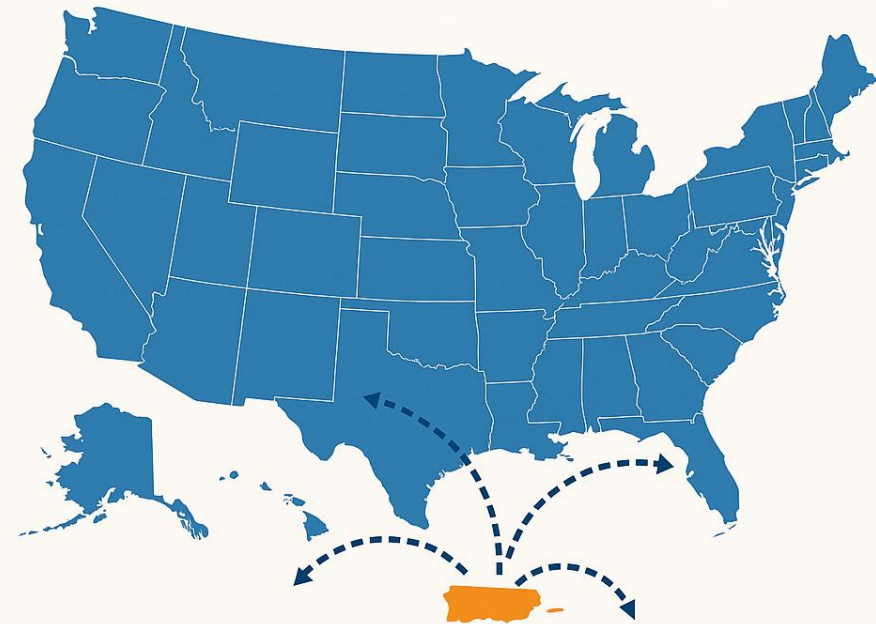
Aspects	Before	After (Enhanced Mailbox via STEVE)
<b>Data Transmission Frequency</b>	<ul style="list-style-type: none"><li>Annually, upon request</li></ul>	<ul style="list-style-type: none"><li>Daily, automated delivery, faster data upload to Secure Access Management Services (SAMS)</li></ul>
<b>File Format &amp; Standardization</b>	<ul style="list-style-type: none"><li>Excel files, not standardized</li></ul>	<ul style="list-style-type: none"><li>CSV files using IJE standard</li></ul>
<b>Process &amp; Validation</b>	<ul style="list-style-type: none"><li>Manual extraction, time-consuming validation</li></ul>	<ul style="list-style-type: none"><li>Automated routing and structured filters for faster validation, improved real-time trend detection, and enhanced surveillance capacity</li></ul>
<b>Benefits for Vital Records Office</b>	<ul style="list-style-type: none"><li>Higher workload, delayed data sharing</li></ul>	<ul style="list-style-type: none"><li>Streamlined operations, reduced burden on staff, timely delivery of accurate data, and greater control over shared data scope and quality</li></ul>

# Lessons Learned and Replicability

## LESSONS LEARNED



## REPLICABLE NATIONWIDE



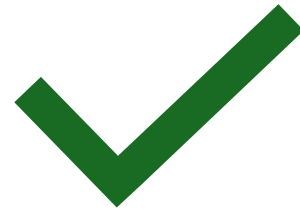
ANY JURISDICTION WITH STEVE ACCESS  
CAN IMPLEMENT THIS CUSTOMIZED MAILBOX



# Closing Remarks



Puerto Rico  
successfully  
transitioned to a modern  
data-sharing model



Tangible benefits to both  
PR-VRO and PR-VDRS



A scalable model for  
other jurisdictions

# Thank you!



**Mario O. Font Martin, MP, PPL**  
Statistics Project Manager  
PRVDRS Coordinator  
*Puerto Rico Institute of Statistics*

Emails:

[mario.font@estadisticas.pr](mailto:mario.font@estadisticas.pr)

[mario.fontmartin@gmail.com](mailto:mario.fontmartin@gmail.com)

Phone Number: 787-400-8402

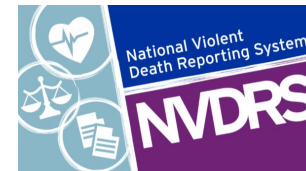


**María M. Juiz Gallego, MPHE, CHES©**  
Quality and Vital Statistics Program Manager  
Demographic Registry  
*Puerto Rico Department of Health*

Email:

[mjuiz@salud.pr.gov](mailto:mjuiz@salud.pr.gov)

Phone Number: 787-765-2929  
ext. 6108



**STEVE**  
STATE AND TERRITORIAL  
EXCHANGE OF VITAL EVENTS



**SCAN ME**

**Puerto Rico Violent Deaths  
Reporting System  
Annual Reports  
2017 - 2022**