



The Office of the National Coordinator for  
Health Information Technology

**Project**  
US@

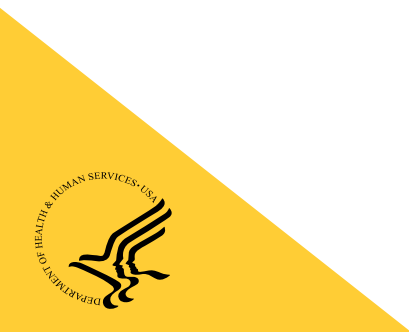
**Unified  
Specification**  
*for Address*  
*in health care*



**February 15, 2022**



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Standards Division, Office of Technology



## Project Background

- ONC received public comments on the use of USPS Publication 28 in response to an RFI on patient matching in the 21st Century Cures Act proposed rule
- Our analysis of Pub 28 led us to conclude that it is insufficient for this purpose
- Limited, but promising public research on effects of data element standardization on patient matching accuracy
  - Grannis SJ, Xu H, Vest JR, Kasthurirathne S, Bo N, Moscovitch B, Torkzadeh R, Rising J. Evaluating the effect of data standardization and validation on patient matching accuracy. *J Am Med Inform Assoc*. 2019 May 1;26(5):447-456. doi: 10.1093/jamia/ocy191. PMID: 30848796.
- These and other efforts indicate the potential for improved patient matching through the development and implementation of standards



# Project US@

- Phase I (2021)
  - Version 1.0 of Technical Specification and AHIMA Companion Guide
    - U.S. domestic and military addresses – [released January 7, 2022](#)
- Phase II (2022)
  - Version 2.0 of Technical Specification and AHIMA Companion Guide
    - Geolocation data
    - Tribal addresses
  - Provider addresses
  - Project US@ API Pilot



## How is Project US@ different from Pub 28?

- USPS Publication 28 as a foundation, maintaining alignment as much as possible throughout, with many additional constraints and the addition of metadata
  - Many health IT software developers use USPS standards to improve patient address standardization for improved mailability as well as other purposes
  - Project US@ aims to meet health systems who already use these standards where they are by requiring only minor changes and refinements to what they already do, directing their focus on improved patient matching
- Guidance is designed to support accurate patient matching while maintaining mailability as much as possible
- Greatest impact can be realized by using both the Technical Specification and the Companion Guide



# AHIMA Companion Guide

The optimal solution to accurately matching patient records is a combination of technology, processes, and people.

- Uniformity of Practice
  - Uniformity of practice in the real-world application of the Project US@ specification can further optimize patient matching
- Project US@ Companion Guide
  - Guidance and best practices
  - Accurate and timely capture and management of patient addresses that support conformance to Project US@ and improve patient matching



# Patient Infographic



## How Does It Work?

Project US@ aims to provide guidance to software developers who design and maintain health IT systems and to health care staff who record and verify your address and other information to assist them with accurately matching you to your correct health record.

**Over the Phone**

**My address?**  
Five Thirteen Seventh Ave, Apt 3-A.

**Avenue?**  
I'm only seeing Seventh Street.

**Oof!**  
You're right, my mom lives on an avenue, my address is Five Thirteen Seventh Street. Thanks!

**Address Search**

- 513 Seventh
- 513 Seventh Street Apartment 20
- 513 Seventh Street Apartment 30
- 513 Seventh Avenue Apartment 1A

**At the Point of Care**

**I see a conflict.**  
It looks like the address in our system and the one on your ID do not match. Is that intentional?

**On no, that's not on purpose.**  
I forgot, that's my old apartment. Can you update it?

**Online Scheduling or Telehealth**

**Please verify your address for this telehealth visit**

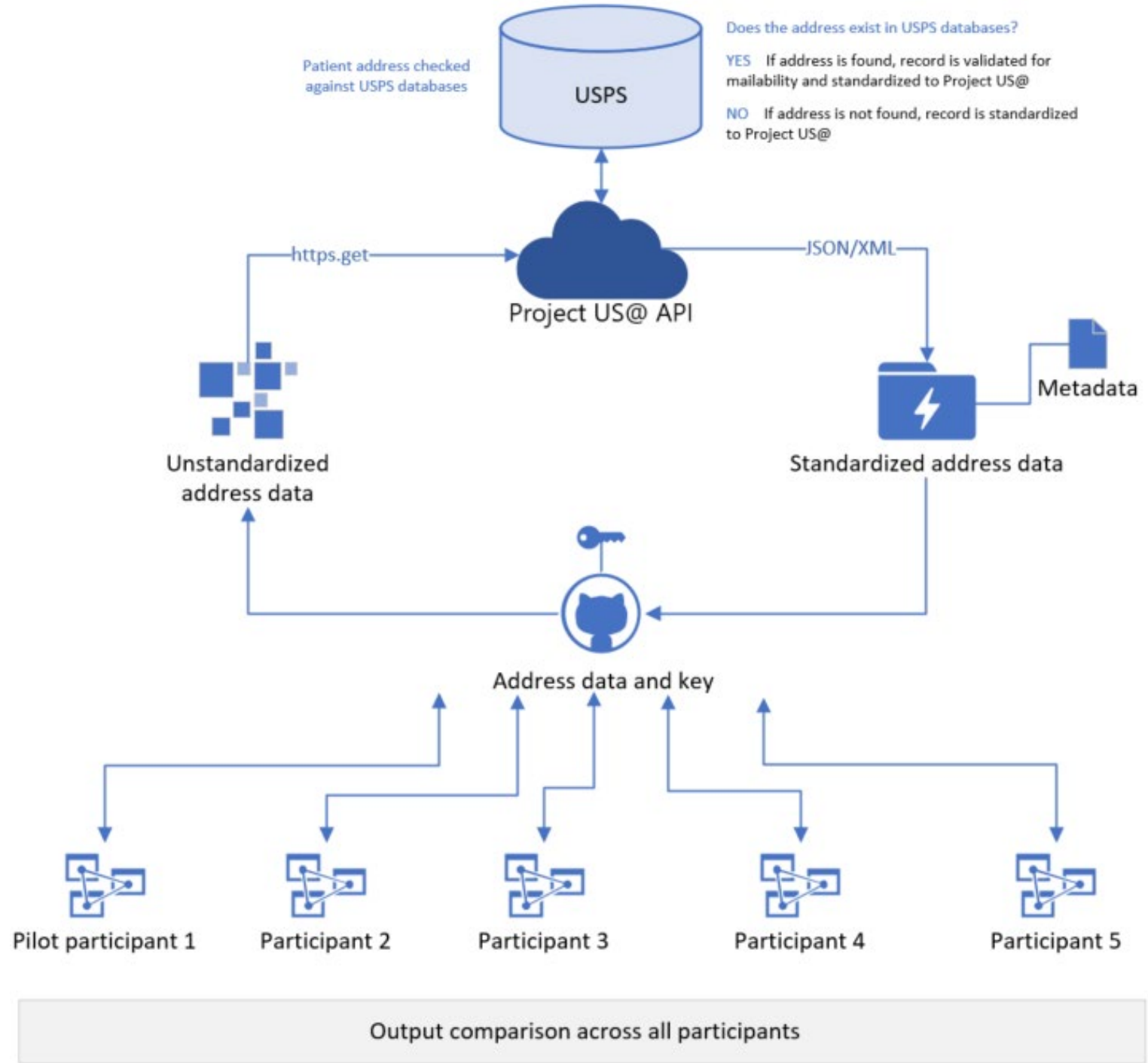
To ensure delivery accuracy, we suggest the change selected below. Please choose which address you would like to use.

**Suggested address**  
300 C STREET SW  
STE 700  
WASHINGTON DC 20024

**Entered address**  
300 C Street Southwest  
Suite 700  
Washington, District of Columbia 20201

[Edit Address](#) [Save Address](#)

# API Pilot



# Known Limitations

- Addresses only
  - Names, dates of birth, or other demographic data elements will not be included in the pilot
    - These and other elements often have a strong, variable effect on matching
- Standardization will not solve all matching issues, but it's a great start!
- Measured effect of pilot will...
  - Be relevant to patient matching within an organization but not between organizations
  - Likely be small (but significant)
  - Not *exactly* comparable across results from pilot participants
    - Even if participants are all using probabilistic methods, every developer uses slightly different approaches and methods to meet this need





# Project US@API

**USPS.COM** Home APIs

Address

Search operations

Group by tag

- GET [City&State Lookup](#)
- POST [City&State Lookup](#)
- GET [Validate Address](#)
- POST [Validate Address](#)
- GET [ZIP Lookup](#)
- POST [ZIP Lookup](#)

## Address

API definition [Changelog](#)

### Validate Address

#### Request

```
GET https://gateway.api.usps.optimo-it.us/address/validate[?address1][&address2][&city][&
```

#### Request parameters

Name	In	Required	Type	Descr
address1	query	false	String	Delive design
address2	query	true	String	Delive packa provic
city	query	false	String	City n
state	query	false	String	Two-c
zip5	query	false	String	Destir zeroe
zip4	query	false	String	Destir to spe
urbanization	query	false	String	Urban
firmName	query	false	String	Name

#### HTTP request

```
// // This sample uses the Apache HTTP client from HTTP Components (http://hc.apache.org/httpcomponents-client-ga/)
import java.net.URI;
import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.client.HttpClient;
import org.apache.http.client.methods.HttpGet;
import org.apache.http.client.utils.URIBuilder;
import org.apache.http.impl.client.HttpClients;
import org.apache.http.util.EntityUtils;

public class JavaSample
{
    public static void main(String[] args)
    {
        HttpClient httpClient = HttpClients.createDefault();

        try
        {
            URIBuilder builder = new URIBuilder("https://gateway.api.usps.optimo-it.us/address/validate?address2=2800%20Dartmouth%20Road%20%235&city=Alexandria&state=VA");

            URI uri = builder.build();
            HttpGet request = new HttpGet(uri);
            request.setHeader("Cache-Control", "no-cache");
            request.setHeader("Ocp-Apim-Subscription-Key", "c3b06f48139f4fd9b0a61799508927be");

            HttpResponse response = httpClient.execute(request);
            HttpEntity entity = response.getEntity();

            if (entity != null)
            {
                System.out.println(EntityUtils.toString(entity));
            }
        }
    }
}
```

de 13 of 19 Accessibility: Investigate

# ONC Health IT Standards Bulletin, January 2022

## Patient Address, page 5

- We believe this specification can serve as the standard for patient address in health care settings
- We seek feedback on whether this specification should be the required standard for Current and Previous Address in USCDI v3 or a future USCDI version
- Draft USCDI v3 has been made available to the public for feedback via the USCDI website or on individual data class or data element pages through April 30, 2022



The Office of the National Coordinator for  
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# Contact ONC

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