

# The Digital Age of HP2020

**Theresa Devine, MPH**

Office of Disease Prevention and Health Promotion (HHS)

**Sarah Pomerantz, MPH**

CommunicateHealth, Inc.

**Matt Allen**

CommunicateHealth, Inc.





# This Morning's Agenda

Overview of Healthy People

.NET to Drupal Migration

User Experience Improvement

Key Features and Drupal Taxonomies

Next Steps



# What Is Healthy People?

- Provides **science-based, 10-year national objectives** for improving the health of the Nation
- Communicates a vision for improving health and achieving health equity on the national level
- Identifies **measurable objectives** with **targets** to be achieved by the year 2020
- Requires tracking of **data-driven outcomes** to monitor progress and to motivate, guide, and focus action



# 42 Topic Areas

- Access to Health Services
- Adolescent Health
- Arthritis, Osteoporosis, and Chronic Back Conditions
- Blood Disorders and Blood Safety
- Cancer
- Chronic Kidney Disease
- Dementias, including Alzheimer's Disease
- Diabetes
- Disability and Health
- Early and Middle Childhood
- Educational and Community-Based Programs
- Environmental Health
- Family Planning
- Food Safety
- Genomics
- Global Health
- Health-Related Quality of Life and Well-Being
- Health Communication and Health Information Technology
- Healthcare-Associated Infections
- Heart Disease and Stroke
- Hearing and Other Sensory or Communication Disorders
- HIV
- Lesbian, Gay, Bisexual, Transgender Health
- Immunization and Infectious Diseases
- Injury and Violence Prevention
- Maternal, Infant, and Child Health
- Medical Product Safety
- Mental Health and Mental Disorders
- Nutrition and Weight Status
- Occupational Safety and Health
- Older Adults
- Oral Health
- Physical Activity
- Public Health Infrastructure
- Preparedness
- Respiratory Diseases
- Sexually Transmitted Diseases
- Sleep Health
- Social Determinants of Health
- Substance Abuse
- Tobacco Use
- Vision



# HealthyPeople.gov Online Tools and Resources

- Topic Area Information
- Objectives
- DATA2020
- National Snapshots
- Infographics
- Evidence-Based Resources (EBRs)
- Stories from the Field
- Social Determinants of Health (SDOH) Portal
- Content Syndication
- Federal Prevention Initiatives
- eLearning
- Webinars





# Content Management System: Migration to Drupal

- Fall 2013-Fall 2014: migration from custom CMS to Drupal CMS
- Opportunity to conduct usability testing and revisit existing content on the site
  - ❖ Our perspective: we want to empower our users, so the refresh was about making sure that people who use HealthyPeople.gov are getting what they need out of it.



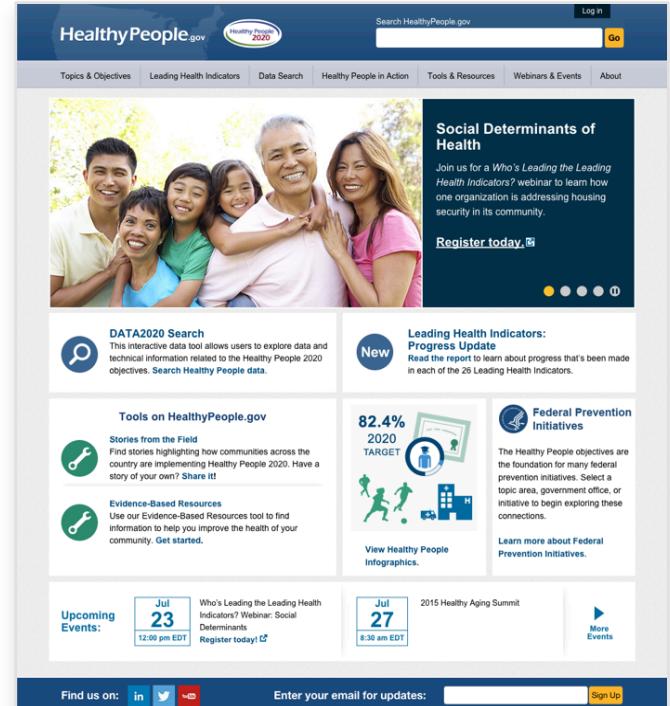


# Content Management System: Migration to Drupal

Over 2,000 pages migrated to Drupal 7!



This screenshot shows the homepage of HealthyPeople.gov from August 2013. The top navigation bar includes links for Home, About Healthy People, 2020 Topics & Objectives, Data, Learn, Implement, Get Involved, and Leading Health Indicators. A search bar and social media links are also present. The main content area features a "Get to know the Leading Health Indicators" section with a chart showing a decrease in Suicide Rate from 2010 to 2020. Other sections include "Implement Healthy People in Your Community", "HHS Prevention Strategies", and a "Spotlight" on DATA2020. The footer contains links for About, Accessibility, Privacy Policy, and a note that the page was last updated on Wednesday, August 28, 2013.



This screenshot shows the homepage of HealthyPeople.gov after migration to Drupal 7 in 2015. The layout has been updated with a dark header and sidebar. The main content area now includes a "Social Determinants of Health" section with a call to action to register for a webinar. Below it are sections for "DATA2020 Search", "Leading Health Indicators: Progress Update", "Tools on HealthyPeople.gov", "Evidence-Based Resources", and "Federal Prevention Initiatives". The footer includes a "Upcoming Events" section with details for a "Who's Leading the Leading Health Indicators? Webinar: Social Determinants" on July 23rd and a "2015 Healthy Aging Summit" on July 27th. Social media links and an email sign-up form are also at the bottom.



# Keeping Users at the Center

Drupal migration provided opportunity to:

- Confirm and clarify user needs
- Refine feature requirements
- Update information architecture
- Improve overall user experience



# User Research Approach

Gathered findings and recommendations using multiple methods:

- Focus groups and in-depth interviews
- Persona development
- Usability testing prior to Drupal migration
- Information architecture (tree testing)
- Prototype “mini-tests” during development of new tools and features
- Usability testing after Drupal migration to test updated features and new content

Required close integration of user research, content, and development teams

**HEALTHY PEOPLE PERSONAS**

**Deborah Palermo**

**Demographics**

- Age 59
- Health Informatics Professor
- Works at University of Michigan

**Information Needs**

- Leading health indicator data for grant writing and publishing
- Historical information about the Healthy People initiative for her students

**Familiarity with Healthy People 2020**

Moderate

- Has been using Healthy People data since she started her PhD program almost 30 years ago

**Relevant Decisions**

- A peer reviewer for several large research conferences and journals, always looks for alignment with Healthy People national objectives

**Channels**

- Occasional participant in webinars
- Routinely visits HealthyPeople.gov

**Relationship to ODPHP: Supporter**

- Believes in what the Healthy People initiative is trying to achieve
- Feels it is her responsibility to educate her students about how to use Healthy People in their future careers

*"I think working with us in academic institutions could be good for getting success stories – we have access to a lot of data and the response time might be quicker than a state or county health department."*





# User Research Findings: DATA2020 Tool

## DATA2020 search tool

- Original in-depth interviews: Users are seeking public health data for specific HP2020 objectives
- Opportunity to redesign tool in Drupal using taxonomies and faceted search module — and address user needs

A screenshot of the DATA2020 search tool on the HealthyPeople.gov website. The page has a blue header with the title 'DATA2020 Search'. Below the header are two main sections: 'Select Topic Areas of Interest' and 'Select Data Source'. The 'Select Topic Areas of Interest' section contains a large list of checkboxes grouped under various categories like 'All Topic Areas', 'Healthcare Quality &amp; Safety', 'Public Health Infrastructure', etc. A yellow circle highlights one of the checkboxes in the 'All Topic Areas' group. The 'Select Data Source' section on the right lists various datasets from sources like AIR, CDC, and NCHS. At the bottom right of the screenshot, there is a timestamp '00:48 / 04:21' and a video control bar.

## Users struggled to use the tool on .NET

[Usability Testing Video: 0:46 - 1:56](#)

- Participants had difficulty narrowing down search results
- Multiple steps involved before users could see data in results

## Changes planned for Drupal

- Place filters on same page as results
- Provide real-time filtering and constant feedback
- Add advanced filtering to facilitate scanning



# Faceted Search Results

Reimagined search results pages using taxonomies and faceted search module

Search HP2020 Objective Data by:

Topic Area    Data Source   [?](#)

Select one or more Topic Areas to begin.

**Objective Filters**

67 Related Objectives [Reset](#)

- Topic Areas (0 Selected)
- Data Sources (0 Selected)
- State-Level Data Available (0 Selected)
- Sex (0 Selected)
- Age Group (1 Selected)
  - Adolescents & Young Adults (10-24) (277)
  - Adults (25-64) (204)
  - Children (-1-9) (221)
  - Older Adults (65 and older)
    - Clear Selection(s)

**Customize Display**

Show Confidence Interval (if available)    Show Standard Error (if available)   [Hide Populations ▲](#)

Display All Populations

<input checked="" type="checkbox"/> Total	<input checked="" type="checkbox"/> Educational attainment	<input checked="" type="checkbox"/> Disability status	<input checked="" type="checkbox"/> Marital status
<input checked="" type="checkbox"/> Sex	<input checked="" type="checkbox"/> Family income	<input checked="" type="checkbox"/> Geographic location	<input type="checkbox"/> Student/school characteristics
<input checked="" type="checkbox"/> Race/Ethnicity	<input checked="" type="checkbox"/> Family type	<input checked="" type="checkbox"/> Health insurance status	<input checked="" type="checkbox"/> Gender identity
<input checked="" type="checkbox"/> Age Group	<input checked="" type="checkbox"/> Country of birth	<input checked="" type="checkbox"/> Sexual orientation	<input checked="" type="checkbox"/> All other populations

[Refresh All Population Data](#)

**67 Related Objectives** [Download Search Results](#)

[Reset Search Criteria](#)

**Access To Health Services**

AHS-5.4 Increase the proportion of adults aged 65 years and older who have a specific source of ongoing care

Adults with a source of ongoing care (percent, 65+ years)

2020 Baseline (year): 96.3 (2008)   2020 Target: 100   Desired Direction: ↑ Increase desired [Display Years ▾](#)

POPULATIONS	2008	2009	2010	2011	2012	2013
TOTAL <a href="#">View Chart</a>	96.3	96.6	96.5	96.3	96.3	96.3

[View Population Data ▾](#)

National Data Source: National Health Interview Survey (NHIS), CDC/NCHS

Data: [Data Details](#) [Learn more about the methodology and measurement of this HP2020 objective](#)

Footnotes: [View All Footnotes](#)



# Drupal Taxonomies

Taxonomies applied to content types:

- DATA2020
- EBRs
- SDOH Portal

SEARCH TERMS

**Age Group**  
- None -  
Children (<1-9)  
Adolescents & Young Adults (10-24)  
Adults (25-64)

**Sex**  
Female ▾

**Setting**  
- None -  
Community  
Criminal Justice System  
**Health Care Setting**

**Population Group**  
- None -  
Caregivers  
Employers & Employees  
Parents, Families & Households

**Intervention Agent**  
- None -  
Policymakers and Law Enforcement  
**Public Health**  
Academia, Research & Development

**Prevention Areas**  
- None -  
**Clinical Services**  
Counseling  
Data Collection/Registries

**Health Condition Type**  
- None -  
**Chronic Conditions**  
Communicable Diseases and Acute Infections



# Drupal Taxonomies

Taxonomies applied to content types:

- DATA2020
- EBRs
- SDOH Portal

<b>Target Population</b> <input type="checkbox"/> Caregivers <input type="checkbox"/> Employers & Employees <input checked="" type="checkbox"/> Families & Households <input type="checkbox"/> Healthcare Providers <input type="checkbox"/> Homeless <input type="checkbox"/> LGBT <input type="checkbox"/> Low Income <input type="checkbox"/> Parents <input type="checkbox"/> Patients <input type="checkbox"/> Students	<b>Resource Type</b> <input checked="" type="checkbox"/> Non-Systematic Review <input type="checkbox"/> Systematic Review <input type="checkbox"/> Randomized Controlled Trial <input type="checkbox"/> Cohort Study <input type="checkbox"/> Cross-Sectional or Prevalence Study <input type="checkbox"/> Expert Opinion <input type="checkbox"/> Field-Based Summary or Case Study <input type="checkbox"/> Case-Control Study <input type="checkbox"/> Experimental Study <input type="checkbox"/> Other	<b>Intervention Type</b> <input checked="" type="checkbox"/> Behavioral & Social <input type="checkbox"/> Clinical Practice <input type="checkbox"/> Community Intervention <input type="checkbox"/> Environmental & Policy <input type="checkbox"/> Informational & Educational <input checked="" type="checkbox"/> Primary Prevention <input checked="" type="checkbox"/> Secondary Prevention <input type="checkbox"/> Social Marketing & Media <input type="checkbox"/> Technology-based <input type="checkbox"/> Tertiary Prevention	<b>Desired Outcome</b> <input checked="" type="checkbox"/> Effect Behavioral Change <input checked="" type="checkbox"/> Effect Health System Change <input type="checkbox"/> Eliminate Health Disparities <input checked="" type="checkbox"/> Improve Quality of Life <input type="checkbox"/> Reduce Injury <input checked="" type="checkbox"/> Reduce Morbidity <input type="checkbox"/> Reduce Mortality <input checked="" type="checkbox"/> Reduce Risk or Incidence of Disease or Condition	<b>EBR Setting</b> <input type="checkbox"/> Clinical or Health Systems <input checked="" type="checkbox"/> Community <input type="checkbox"/> Criminal Justice System <input checked="" type="checkbox"/> Home <input type="checkbox"/> Medical Home <input type="checkbox"/> Rural <input type="checkbox"/> School <input type="checkbox"/> School-Based <input type="checkbox"/> Urban <input type="checkbox"/> Worksite
<b>EBR Intervention Agent</b> <input type="checkbox"/> test <input checked="" type="checkbox"/> Public Health <input type="checkbox"/> Community- & Faith-Based Organizations <input type="checkbox"/> Business & Private Sector <input type="checkbox"/> Employers & Employees <input checked="" type="checkbox"/> Government & Policymakers <input type="checkbox"/> Law Enforcement <input checked="" type="checkbox"/> Healthcare <input type="checkbox"/> Academics, Research & Development	<b>Health Condition Type</b> <input type="checkbox"/> Chronic Conditions <input type="checkbox"/> Communicable Diseases & Acute Infections	<b>Race and Ethnicity</b> <input type="checkbox"/> American Indian or Alaska Native only <input type="checkbox"/> Asian only <input type="checkbox"/> Black or African American only <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Native Hawaiian or Other Pacific Islander only <input type="checkbox"/> Non-Hispanic Black or African American <input type="checkbox"/> Non-Hispanic White <input type="checkbox"/> White only	<b>Age Ranges</b> <input type="checkbox"/> <1 year <input type="checkbox"/> 1-4 years <input type="checkbox"/> 5-9 years <input type="checkbox"/> 10-14 years <input type="checkbox"/> 15-19 years <input type="checkbox"/> 20-24 years <input type="checkbox"/> 25-44 years <input type="checkbox"/> 45-64 years <input type="checkbox"/> 65 years and older	<b>Sex</b> <input type="checkbox"/> N/A <input type="checkbox"/> Sex <input type="checkbox"/> -Female <input type="checkbox"/> -Male <input type="checkbox"/> -Sex <input type="checkbox"/> Sex (of child) <input type="checkbox"/> -Female <input type="checkbox"/> -Male



# Drupal Taxonomies

Taxonomies applied to content types:

- DATA2020
- EBRs
- **SDOH Portal**

## Related Domains

- None -
- Economic Stability
- Education
- Health and Health Care**

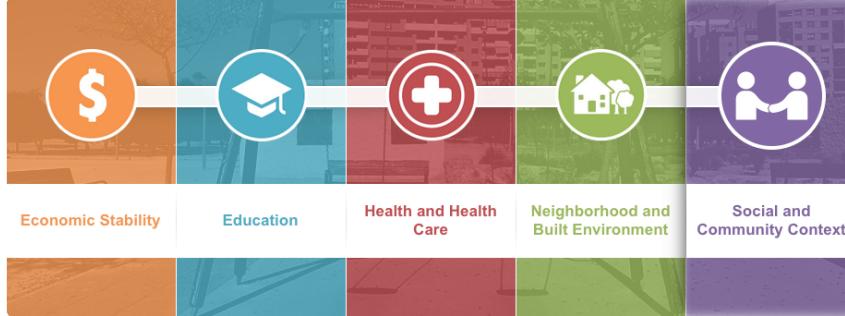
## Levels

- None -
- Local Resources**
- State Resources
- National Resources



# SDOH Portal

User-friendly, visually pleasing front-end display for exposed faceted search results



Economic Stability      Education      Health and Health Care      Neighborhood and Built Environment      Social and Community Context

**National, State, and Local Resources**

Review these resources to see how others have worked to address and improve the social determinants of health across the Nation.

National Resources	Related Domains
<a href="#">A New Way to Talk about the Social Determinants of Health (Robert Wood Johnson Foundation)</a> <small>(PDF - 1.2 MB)</small> Evidence-based best practices in communicating about the social determinants of health	
<a href="#">A Roadmap for Healthier General Plans (ChangeLab Solutions) [PDF - 1.2 MB]</a> <small>(PDF - 244 KB)</small> Toolkit on including health-promoting policies in local land use and development planning	
<a href="#">Division of Nutrition, Physical Activity and Obesity (DNPAO) State Program Highlights: Urban Design and Transportation Policies and Practices (CDC, Centers for Disease Control and Prevention) [PDF - 244 KB]</a> <small>(PDF - 244 KB)</small> Examples of urban design policies across the nation	
<a href="#">Getting to Grocery: Tools for Attracting Healthy Food Retail to Underserved Neighborhoods (ChangeLab Solutions) [PDF - 1.0 MB]</a> <small>(PDF - 1.0 MB)</small> Strategies to increase the availability of healthy grocery stores in your community	
<a href="#">Getting to Smart Growth: 100 Policies for Implementation (The Smart Growth Network) [PDF - 2.0 MB]</a> <small>(PDF - 2.0 MB)</small> Framework to build healthy, vibrant, and diverse living environments through collaborative planning	



# HHS Content Syndication Module

- Healthy People content syndicated into the HHS Content Syndication Storefront using the new HHS Content Syndication Drupal module

- New content is auto-published to the Syndication Storefront
- HealthyPeople content everywhere!



The screenshot displays the HHS Syndication Storefront homepage. At the top, there's a navigation bar with links for 'HOME', 'REGISTER', and 'LOGIN'. Below the navigation, a main content area features a 'Media Item Lookup' form with fields for 'Title', 'Source', and 'Language'. To the right of the form is a 'Search Results' section titled 'Advanced Search' showing several items like 'Helping Improve Access to Health Services', 'Public Health Infrastructure', 'Genomics and Drug Response', 'Child, Adolescent & "Catch-up" Immunization Schedules', and 'Adult Immunization Schedule'. On the far right, there's a sidebar with sections for 'What is Content Syndication?', 'Featured Media' (with links to 'Standard Due Dates for Competing Applications', 'How to Apply for an NIH Grant', and 'NIH Grants Process Overview'), and 'Syndication API' (with a brief description and a blue gear icon).



# Next Steps

Drupal allows continual iterative improvements

- Expand CMS to expose DATA2020 entity fields to data managers
- Develop new DATA2020 search page layout to improve labels and scannability

Ongoing testing as new content and features are added

- Segmented usability testing of general and DATA2020 features this summer

The screenshot shows the HealthyPeople.gov website's data search interface. At the top, there are navigation links for 'Office of Disease Prevention and Health Promotion', 'health.gov', 'healthfinder.gov', 'HealthyPeople.gov', 'Log in', and a search bar. Below the header, the main title is 'HP2020 Objective Data Search'. On the left, a sidebar titled 'Narrow Your Search' lists various topic areas with checkboxes, with 'Access to Health Services' checked. It also includes sections for 'Data Sources', 'Sex', 'Age Group', 'Setting', 'Population Group', 'Intervention Agent', 'Prevention Areas', 'Type of Health Condition', 'LHI', and 'Measurable Objects'. The main content area displays search results for 'AHS-1.1 Increase the proportion of persons with medical insurance'. It shows a baseline of 83.2 (2008), a target of 100, and a desired direction of 'Increase desired'. A chart shows data from 2009 to 2013, with values: TOTAL: 83.4, 83.9, 83.0, 83.6, 83.2. Below the chart, it says 'Data Source: National Health Interview Survey (NHIS), CDC/NCHS' and 'Data: Learn more about the methodology and measurement of this HP2020 objective'. There is also a link to 'View All Footnotes'.



# Questions or comments?

## Office of Disease Prevention and Health Promotion

**Theresa Devine, MPH**

Health Information Specialist

[Theresa.Devine@hhs.gov](mailto:Theresa.Devine@hhs.gov)

## CommunicateHealth, Inc.

**Matt Allen**

Director of Technology

[matt@communicatehealth.com](mailto:matt@communicatehealth.com)

**Sarah Pomerantz, MPH**

Health Communication Manager

[sarah@communicatehealth.com](mailto:sarah@communicatehealth.com)

## Stay Connected with HealthyPeople



Web [HealthyPeople.gov](http://HealthyPeople.gov)



Twitter [@GoHealthyPeople](https://twitter.com/GoHealthyPeople)



LinkedIn Healthy People 2020