
Social Screening Form in OpenEMR

MAY 26, 2022

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1 Overview

1.1 Background

Over the past few decades there has been an increasing focus on the Social Determinants of Health as predictors and risk factors of health inequities. Specifically, the Healthy People 2030 campaign goals and objectives from the US Department of Health and Human Services focuses largely on the SDOH as predictors of health outcomes and causes of health inequities. These are broken down into the following five categories: economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social community and context. (Health.gov, 2021) During these same decades, the evolution and inclusion of Electronic Health Records has enabled rich data collection and a way for healthcare providers to learn more about their patients to provide better preventive care and assist in diagnosis based on increased risk factors. Unfortunately, much of the data that is stored in patient history is still reflective of the prior paradigm that genetics and behavior are the main factors of health outcomes. While family history and behavior can be important, they need to be balanced with a more thorough understanding of SDOH that goes beyond education level and occupation. In fact, the importance of family history and risk factors likely has more value as indicators of similar upbringing and SDOH than it does genetics. This would only be valuable if similar life conditions existed between the patient and their relatives. It is also important to have a deeper understanding of the relative life conditions of the individual and how they contribute to the overall stress level in a person's life. These individual measures of stress are cumulative across all SDOH and will impact nearly all health outcomes including infectious and non-infectious diseases, accidents, and injuries leading to morbidity and mortality. (Whitehall, 2008)

The first Healthy People initiative began in 1980 by HHS and was used to track trends in health outcomes as a nation, with life expectancy and infant mortality being the main two measurements of importance. Both measurements continue to have large inequities between races, geographic location, education level, and socioeconomic status. Inequities exist among multiple datapoints including disability, obesity, cancer, asthma, diabetes, heart disease, mental illness, suicide, homicide, addiction, etc. (Singh, et al, 2016) Some of the most unfavorable outcomes exist among African Americans, Native Americans, poor, and rural individuals. While targeted studies have been completed to attempt to understand the root causes at a societal level, there is much individual variability in the reaction to the SDOH and life situation. If this data was captured and collected with patient records, this could provide vital information regarding successful interventions that can be used and targeted screenings for specific risk factors. The reinforcing loop of data will continue to produce more valuable feedback loops for future and current risk factors.

1.2 Social Screening Form in OpenEMR

The Social Screening Form available in OpenEMR was developed using questions from various screening tools and research studies as found on the SIREN website at <https://sirennetwork.ucsf.edu/>. SIREN is the Social Intervention and Research Network at University of California at San Francisco, sponsored by Kaiser Permanente and Robert Wood Johnson Foundation. Their mission is to improve health and health equity by advancing high quality research on health care sector strategies to improve social conditions. Additional input on categories and diagnoses was provided by the Gravity Project (<https://confluence.hl7.org/pages/viewpage.action?pageId=91996855#TheGravityProject-ProjectOverview>). This is a multi-year project with over 600 stakeholders from across the country that is working to standardize terms, codes, and diagnoses to assist in data capture and transfer of SDOH in EHR using FHIR.

1.3 Uses of Screening Data

There are 4 main ways that the screening data can be used:

- Greater understanding of patients in a social context that can assist in identifying higher risk attributed to Social Determinants of Health.
- Customizing prevention, intervention, and care plans to the unique social situations of each patient.
- Connecting patients to community organizations and resources to assist in providing for any urgent needs.
- Community level research to determine protective and risk factors associated with SDOH.

1.4 Form Questions, Scores, and Domains

Question		Score	Max Score	Domain	SubDomain
1. What is the highest level of education that you have completed?	Less than High School	5	5	Education	Health Literacy
	High School Diploma or GED	3		Education	Health Literacy
	2 Year College or Vocational Degree	1		Education	
	Bachelors Degree	0		Education	
	Advanced Degree, Masters or Doctorate	0		Education	
	Choose not to answer	0		Education	

2. Do you or any of your family members have a disability?	Yes	5	5	Disability	Stress
	No	0		Disability	
	Choose not to answer	0		Disability	
3. What is your housing situation today?	Permanent and Safe	0	5	Housing	
	Temporary (shelter, family, friends)	2		Housing	Housing Instability
	Unsafe housing (mold, exposure, unclean)	2		Housing	Housing Quality
	Car, van, or mobile home	3		Housing	Housing Instability
	Unsheltered (tent, park, vacant lot)	5		Housing	Housing Instability
	Other	1		Housing	Housing Instability
	Choose not to answer	0		Housing	
	4. What is your current work situation? Check all that apply.	Full Time	0	9	Employment
Part Time		0		Employment	
Temporary		1		Employment	Financial Strain
Seasonal or Migrant		1		Employment	Financial Strain
Looking for Work		3		Employment	Financial Strain
Retired		1		Employment	
Disabled		3		Employment	Disability
Student		0		Employment	
Not Employed Outside the Home		0		Employment	
Choose not to answer		0		Employment	
5. How many hours do you work in a week?				Employment	
6. What is the total income for all your family in the past year? (This will help us know if you are eligible for benefits)				Finance	
7. How many people are in your household? Including yourself.				Household Size	
8. Are you a primary caregiver for any of the following? Check all that apply.	Not a primary caregiver	0	25	Caregiver Status	
	Children under 5	5		Caregiver Status	
	Children age 5 to 12	3		Caregiver Status	
	Children over 12	1		Caregiver Status	
	Special Needs Child	5		Caregiver Status	
	Disabled or Ill Adult	5		Caregiver Status	
	Elderly	5		Caregiver Status	

	Other:	1		Caregiver Status	
9. Do you or a family member owe money that you struggle to pay back? Check all that apply.	No debt	0	11	Financial Insecurity	
	Medical Bills	3		Financial Insecurity	Medical Cost Burden
	Credit Cards	1		Financial Insecurity	
	Rent/Mortgage	1		Financial Insecurity	Housing Instability
	Student Loans	1		Financial Insecurity	
	Taxes	1		Financial Insecurity	
	Legal Fees	1		Financial Insecurity	
	Car Loan or License	1		Financial Insecurity	Transportation Insecurity
	Utilities	1		Financial Insecurity	Utility Insecurity
	Other	1		Financial Insecurity	
10. In the past year, have you or a family member struggled to pay for any of the following? Check all that apply.	No Financial Struggles	0	15	Material Hardship	
	Healthy Food	3		Material Hardship	Food Insecurity
	Medicine or Medical Care	2		Material Hardship	Medical Cost Burden
	Child Care or School	2		Material Hardship	Childcare insecurity
	Utilities (Poser, water)	1		Material Hardship	Utility Insecurity
	Phone, Internet	1		Material Hardship	Utility Insecurity
	Rent or Mortgage	2		Material Hardship	Housing Instability
	Transportation	1		Material Hardship	Transportation Insecurity
	Clothing	1		Material Hardship	Material Cost Burdent
	Education	1		Material Hardship	Material Cost Burdent
	Other	1		Material Hardship	
11. In the past year, has lack of transportation prevented you or a	No Transportation Problems	0	8	Transportation	

family member from any of the following? Check all that apply.	Medical Care	1		Transportation	Access to Medical Care
	Access to Healthy Food	2		Transportation	Food Insecurity
	Work or Meetings	2		Transportation	Employment Insecurity
	School or Childcare	1		Transportation	Childcare Insecurity
	Visit Family or Friends	1		Transportation	Social Isolation
	Other	1		Transportation	
12. In the past year, have you or a family member not gotten medical care because of any of the following? Check all that apply.	No delayed medical care	0	13	Medical Care Access	
	No Insurance	3		Medical Care Access	Uninsured
	Copay or Deductible is too high	2		Medical Care Access	Medical Cost Burden
	Needed care is not covered by insurance	2		Medical Care Access	Underinsured
	Not able to take time off work	1		Medical Care Access	Employment Insecurity
	No provider available	1		Medical Care Access	
	Did not understand provider recommendations	1		Medical Care Access	Health Literacy
	Lack of trust in medical care	1		Medical Care Access	
	No child care	1		Medical Care Access	Childcare Insecurity
	Other	1		Medical Care Access	
13. In the past year, have you and your family members seen dentists?	Yes	0	4	Medical Care Access	
	No, not insured	1		Medical Care Access	Underinsured
	No, need dentist	1		Medical Care Access	
	No, not able to take time off work	1		Medical Care Access	Employment Insecurity
	No, other	1		Medical Care Access	
	Choose not to answer	0		Medical Care Access	
14. How often do you see or talk to people that you care about or feel close to? (For example: talking to	Less than once a week	3	6	Social Support	
	1 time a week	2		Social Support	

friends on the phone, visiting friends or family, going to church or club meetings)	2-3 times a week	1		Social Support	
	4-5 times a week	0		Social Support	
	Almost every day	0		Social Support	
	Choose not to answer	0		Social Support	
15. Stress is when someone feels tense, nervous, anxious, or can't sleep at night because their mind is troubled. How stressed are you?	Not at all	0	6	Stress	
	A little bit	0		Stress	
	Somewhat	1		Stress	
	Quite a bit	2		Stress	
	Very Much	3		Stress	
	Choose not to answer	0		Stress	
16. In the past year, have you had any of the following stressful life events occur? Check all that apply.	No Stressful Life Events	0	35	Stress	
	Death of a loved one	5		Stress	Social Isolation
	Divorce or separation	3		Stress	Social Isolation
	Loss of Job	3		Stress	Employment Insecurity
	Moved	2		Stress	
	Major illness or injury	3		Stress	Disability
	Victim of a crime	3		Stress	
	Witness of a crime or accident	1		Stress	
	Legal issues	2		Stress	
	Homeless	3		Stress	Housing Insecurity
	Incarcerated	3		Stress	Incarceration
	Bankruptcy	3		Stress	Financial Insecurity
	Marriage	1		Stress	
	Birth of a child	1		Stress	
	Child moving out	1		Stress	
	Other	1		Stress	
17. Do you feel safe walking and living in your neighborhood?	Yes, all the time	0	3	Neighborhood Safety	
	Yes, during the day	1		Neighborhood Safety	Physical Safety
	No	3		Neighborhood Safety	Physical Safety
	Choose not to answer			Neighborhood Safety	
18. In the past year, have you or a family member been afraid of a partner or ex-partner?	Yes	5	5	Intimate Partner Violence	Physical Safety

	No	0		Intimate Partner Violence	
	Choose not to answer	0		Intimate Partner Violence	
19. In the past year, have you been a female headed household?	Yes	3	3	Demographics	Stress
	No	0		Demographics	
	Choose not to answer	0		Demographics	
20. In the past year, have you or anyone in your family struggled with addiction?	Yes	3	3	Addiction	Stress
	No	0		Addiction	
	Choose not to answer	0		Addiction	
21. Have you ever been discharged from the Armed Services?	Yes	3	3	Armed Services	
	No	0		Armed Services	
	Choose not to answer	0		Armed Services	
22. Are you a refugee?	Yes	5	5	Refugee	Stress
	No	0		Refugee	
	Choose not to answer	0		Refugee	
23. In the past year, have you been discriminated against because of any of the following? Check all that apply.	No Discrimination		27	Discrimination	
	Race/Ethnicity	5		Discrimination	Stress
	Gender	2		Discrimination	Stress
	Sexual Preference	3		Discrimination	Stress
	Gender Expression	3		Discrimination	Stress
	Religion	2		Discrimination	Stress
	Disability	3		Discrimination	Stress
	Age	1		Discrimination	Stress
	Weight	1		Discrimination	Stress
	Socioeconomic Status	1		Discrimination	Stress
	Education	1		Discrimination	Stress
	Marital Status	1		Discrimination	Stress
	Citizenship	1		Discrimination	Stress
	Accent or Language	1		Discrimination	Stress
Criminal History	1		Discrimination	Stress	
Other	1		Discrimination	Stress	
24. In what situations have you been discriminated in? Check all that apply.	No Discrimination	0	10	Discrimination	
	Employment	1		Discrimination	Employment Insecurity
	Housing	1		Discrimination	Housing Insecurity
	Health Care	1		Discrimination	Medical Care Access
	Law Enforcement	1		Discrimination	Physical Safety

	Education	1		Discrimination	
	In Public (Shopping, Dining, Parks)	1		Discrimination	
	Religious or Civic Organizations	1		Discrimination	
	Government	1		Discrimination	
	Banks or Finance Services	1		Discrimination	Financial Strain
	Other	1		Discrimination	
25. Would you like to be contacted with resources or assistance?	Yes, by phone				
	Yes, by email				
	Yes, by portal message				
	No				
	Other				

1.5 Scoring

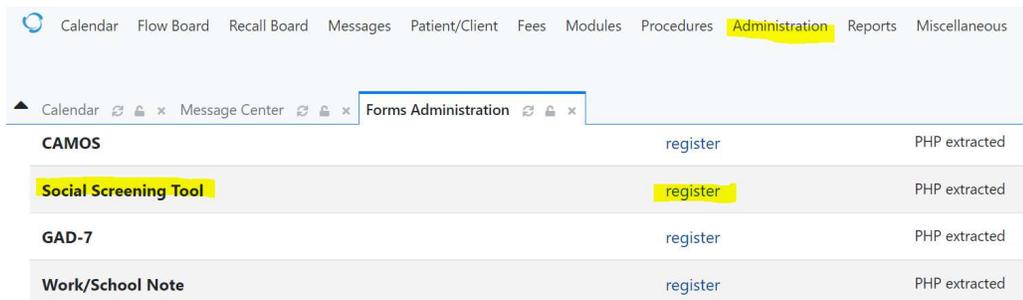
The scoring is not intended to be used as a diagnostic tool with normal ranges. Each practice and neighborhood will have a variety of situations and scores among their patients. This score can be used as a baseline for each patient or practice to evaluate on an individual level.

1.6 Timing

It is recommended that this form is given before first appointment and then followed up every year for changes. Patients will be more truthful if they are able to fill out the form on their own via patient portal or given a tablet to complete privately. Please note that all studies involving SDOH surveys showed that most patients responded favorably to answering these questions when told that it will help their provider learn about them to give better health care. It would be beneficial if each provider included a message with the link to the form that explains what Social Determinants of Health are and that they account for over 50% of health outcomes. Most people are glad to hear that some of their health issues are not due to their behavior or genetics.

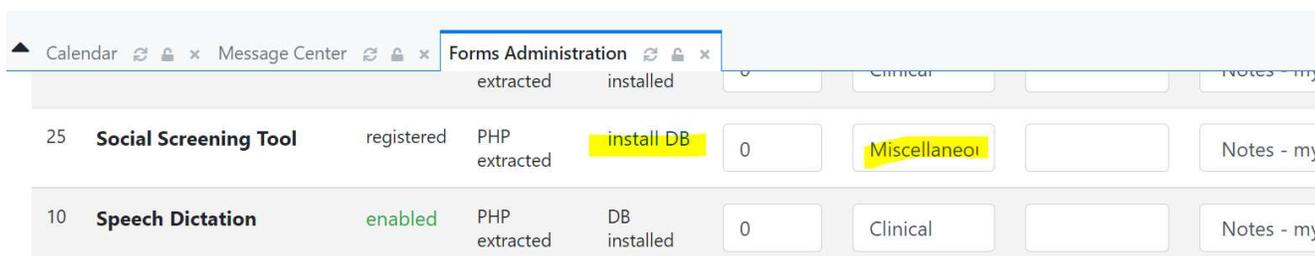
2 Form Setup

2.1 Register in OpenEMR Forms Administration:

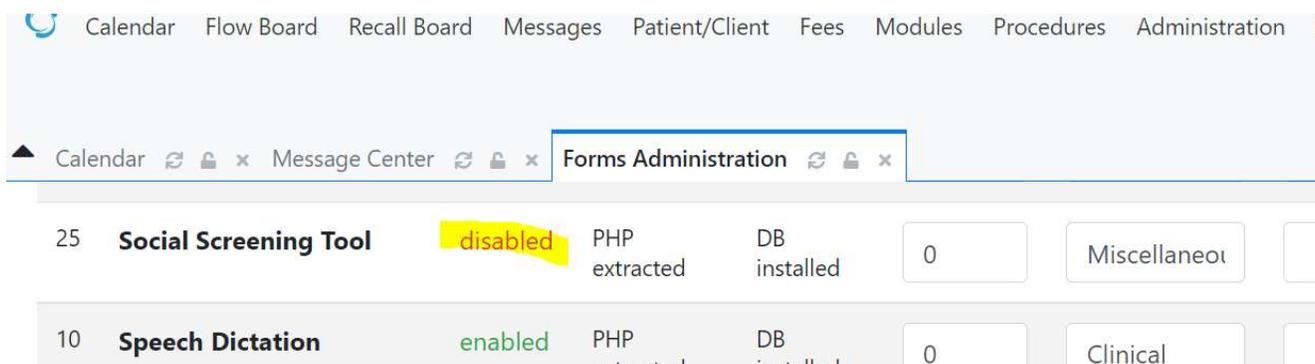


2.2

2.3 Install DB (note that it will go to Miscellaneous folder)



2.4 Enable the form (click on disabled)



2.5 Confirm Enabled

Calendar Flow Board Recall Board Messages Patient/Client Fees Modules Procedures Administration

Calendar Message Center Forms Administration extracted installed

25 **Social Screening Tool** **enabled** PHP extracted DB installed 0 Miscellaneous

3 Using the Social Screening Form

3.1 Opening via Encounter, click on “Miscellaneous”

Calendar Flow Board Recall Board Messages Patient/Client Fees Modules Procedures Administration Reports Miscellaneous

Char Miller (1) x
DOB: 2022-05-26 Age: 0 month

+ Open Encounter: 2022-05-26 (2)
View Past Encounters (1) v

Calendar Message Center Forms Administration Patient Finder Dashboard 2022-05-26 Enc

Summary

2022-05-26 Encounter for Char Miller Administrative Clinical **Miscellaneous**

3.2 Radio Buttons

The circle buttons are radio buttons and only one can be chosen at a time.

Calendar Message Center Forms Administration Patient Finder Dashboard 2022-05-26 Encounter

Summary Social Screening Tool x

Social Screening Tool

What is the highest level of education that you have completed?

- Less than High School
- High School Diploma or GED
- 2 Year College or Vocational Degree
- Bachelors Degree
- Advanced Degree, Masters or Doctorate
- Choose not to answer

3.3 Checkbox

The square buttons are checkboxes and multiple can be checked.

What is your current work situation? Check all that apply.

- Full Time
- Part Time
- Temporary
- Seasonal or Migrant
- Looking for Work
- Retired
- Disabled
- Student
- Not Employed Outside the Home
- Choose not to answer

3.4 Other Input Fields

In some of the questions there are “Other” input boxes. These fields are 30 characters long and can be entered when the Other checkbox is on or off.

Are you a primary caregiver for any of the following? Check all that apply.

- Not a primary caregiver
- Children under 5
- Children age 5 to 12
- Children over 12
- Special Needs Child
- Disabled or Ill Adult
- Elderly
- Other

3.5 Number Inputs

There are 3 questions that have integer input fields: Hours Worked (number between 0 and 200), Household Income (number between 0 and 10,000,000), and Household Size (number between 1 and 20).

Calendar x Message Center x Forms Administration x Patient Finder x Dashboard x 2022-05-26 Encounter x

Summary Social Screening Tool x

How many hours do you work in a week?

80

What is the total income for all your family in the past year? (This will help us know if you are eligible for benefits)

50000

How many people are in your household? Including yourself.

3.6 Scoring

The score is set to calculate every time the form is touched. The points are determined from the table in section 1.4.

Calendar x Message Center x Forms Administration x Patient Finder x Dashboard x 2022-05-26 Encounter x

Summary Social Screening Tool x

Yes, by phone
 Yes, by email
 Yes, by portal message
 No
 Other

Your total score is 36

3.7 Saving

Clicking the Save button on the bottom will post the data to the SQL table.

Calendar x Message Center x Forms Administration x Patient Finder x Dashboard x 2022-05-26 Encounter x

Summary Social Screening Tool x

Other Comments

1pm Form Test Score 36

4 Social Screening Report

4.1 Location

The Social Screening Report will be automatically appended to the patient Encounter record.

Calendar Message Center Forms Administration Patient Finder Dashboard 2022-05-26 Encounter

Summary

Facility: Your Clinic Name Here

Category: Health and Behavioral Assessment

Reason: Social Screening Tool Test

Provider: Administrator,

Referring Provider: ,

POS Code: 00

eSign Log

No signatures on file

Social Screening Tool

by Administrator

Edit eSign Delete Expand / Collapse

4.2 Social Screening Risks

These risks are determined and listed based on the answers in the form. If they have not checked any risk factors then this will simply say “No Social Screening Risks”

Calendar Message Center Forms Administration Patient Finder Dashboard 2022-05-26 Encounter

Summary

Social Screening Risks:

Employment Insecurity: Temporary

Over 40 Work Hours: 80

Potential Low Income. Household Size: 4 Household Income: 50000

Caregiver for Children over 12

Caregiver for Other: Pets

Debt for Credit Cards

Debt for Student Loans

Struggle to pay for Medicine or Medical Care

Struggle to pay for Rent or Mortgage

Struggle to pay for Transportation

4.3 Contact and Score

The recommended Contact or No Contact method will be bolded after all risks.

Calendar Message Center Forms Administration Patient Finder Dashboard 2022-05-26 Encounter

Summary

Female Headed Household

Discrimination for Gender Expression

Discrimination for Age

Discrimination for Marital Status

Discriminated at Work

Discriminated in Education

Discriminated in Public(Shopping, Dining, Walking)

Discriminated in Banking or Finance Services

Do Not Contact With Resources

Patient Score = 36

4.4 Possible Diagnoses

The possible diagnoses are listed based on the answers and attached domains.



Calendar Message Center Forms Administration Patient Finder Dashboard 2022-05-26 Encounter

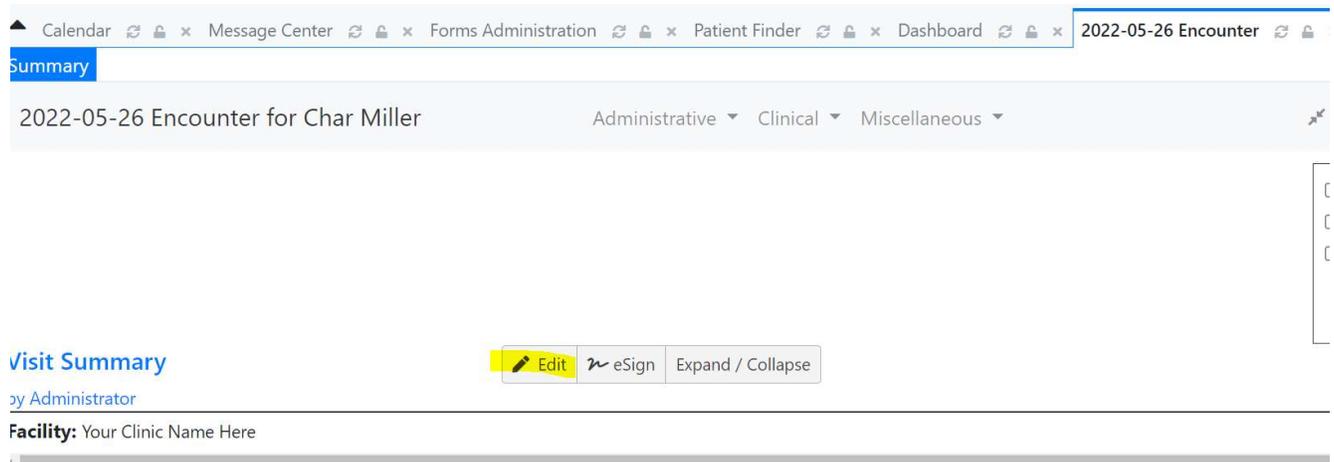
Summary

Possible Diagnoses:

- Financial Insecurity
- Material Hardship
- Housing Instability
- Medical Cost Burden
- Caregiver Burden
- Social Isolation
- Elevated or Toxic Stress
- Discrimination
- Uninsured or Underinsured

4.5 Reopening Form

In order to reopen and change the answers, simply click on the Edit button at the top of the report. This will bring up the original form with all the previous answers pre-populated.



Calendar Message Center Forms Administration Patient Finder Dashboard 2022-05-26 Encounter

Summary

2022-05-26 Encounter for Char Miller Administrative Clinical Miscellaneous

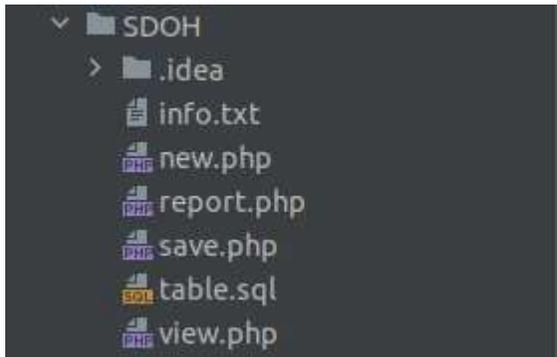
[Visit Summary](#) Edit eSign Expand / Collapse

[by Administrator](#)

Facility: Your Clinic Name Here

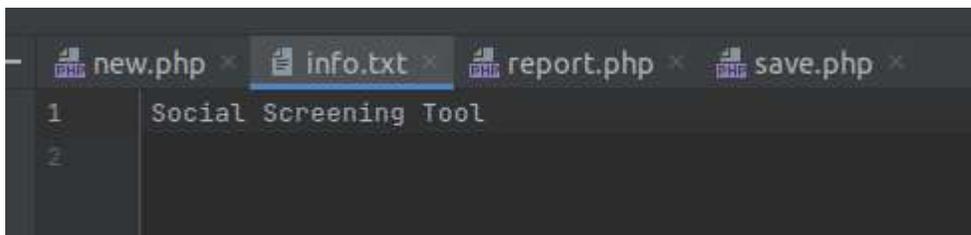
5 Technical Documentation

5.1 PHP Location: OpenEMR/Forms/SDOH



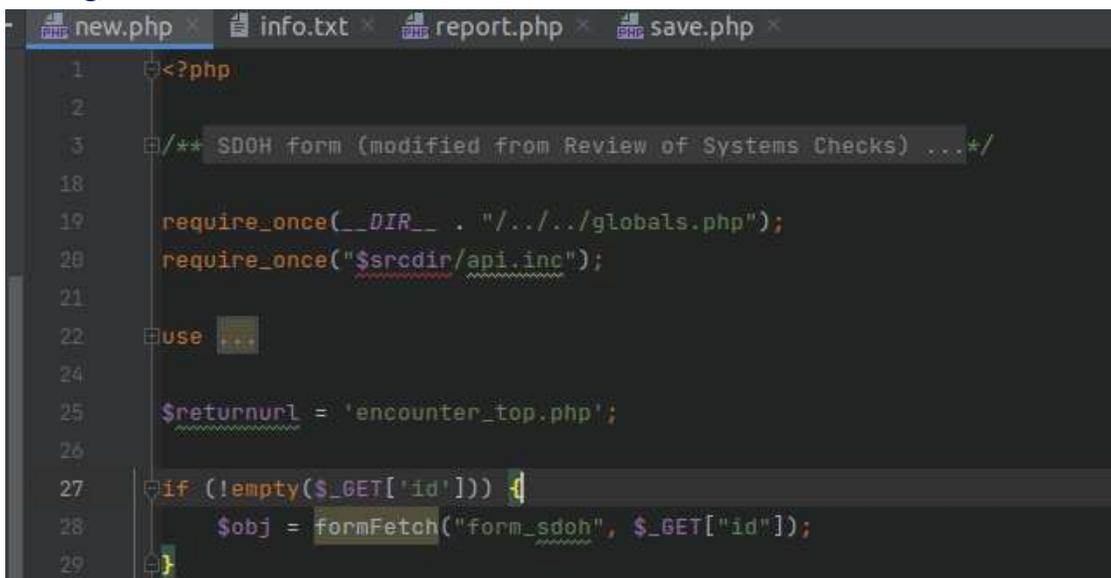
5.2 Info.txt

This file contains the name that appears in Forms Administration.



5.3 New.php

This php file contains the HTML code that displays the form, allows edit of form, javascript for scoring, and save function to SQL.



5.4 Report.php

This contains the code for the report that displays on the encounter summary in patient record. The first section displays the Social Risks determined from specific answers and the bottom section shows the possible diagnoses.

```
new.php x info.txt x report.php x save.php x
1 <?php
2
3 /**
4  * sdoh form
5  *
6  * @package OpenEMR
7  * @link http://www.open-emr.org
8  * @author Char Miller charjmiller@gmail.com
9  * @copyright Copyright (c) 2022 Char Miller <charjmiller@gmail.com>
10 * @license https://github.com/openemr/openemr/blob/master/LICENSE GNU General Public License 3
11 */
12
13 require_once(dirname(__FILE__) . '/../..../globals.php');
14 require_once($GLOBALS["srcdir"] . "/api.inc");
15
16 function sdo_report($pid, $encounter, $cols, $id)
17 {
```

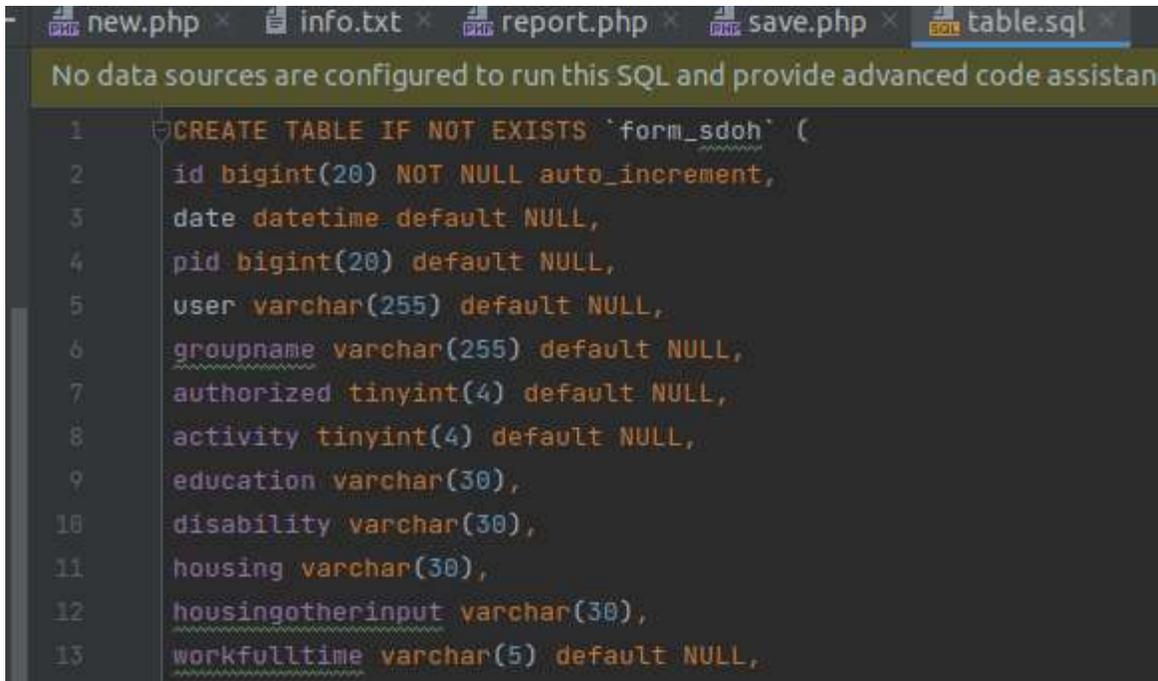
5.5 Save.php

This contains the code and SQL insert for a new form or update for a form edit.

```
new.php x info.txt x report.php x save.php x
1 <?php
2
3 /** Forms generated from formsWiz ...*/
15
16 require_once(__DIR__ . "/../..../globals.php");
17 require_once("$srcdir/api.inc");
18 require_once("$srcdir/forms.inc");
19
20 use OpenEMR\Common\Csrf\CsrfUtils;
21
22 if (!CsrfUtils::verifyCsrfToken($_POST["csrf_token_form"])) {
23     CsrfUtils::csrfNotVerified();
24 }
25
26 if ($encounter == "") {
27     $encounter = date("Ymd");
28 }
```

5.6 Table.sql

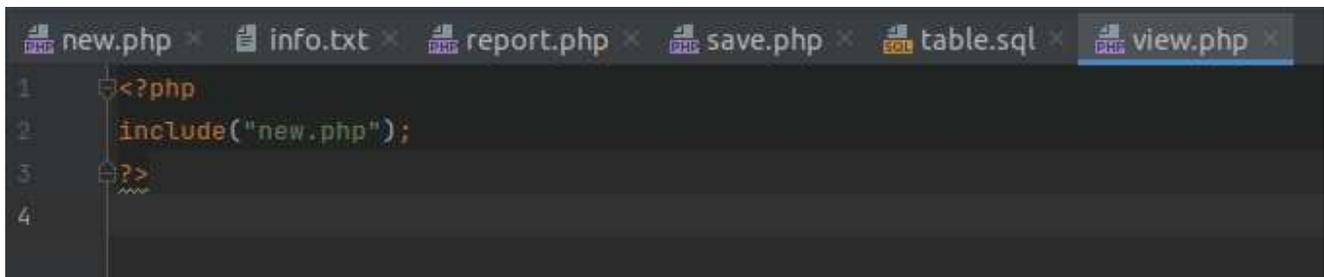
This is the Table Create script that is run when adding the form in forms administration.



```
new.php x info.txt x report.php x save.php x table.sql x
No data sources are configured to run this SQL and provide advanced code assistan
1 CREATE TABLE IF NOT EXISTS `form_sdoh` (
2   id bigint(20) NOT NULL auto_increment,
3   date datetime default NULL,
4   pid bigint(20) default NULL,
5   user varchar(255) default NULL,
6   groupname varchar(255) default NULL,
7   authorized tinyint(4) default NULL,
8   activity tinyint(4) default NULL,
9   education varchar(30),
10  disability varchar(30),
11  housing varchar(30),
12  housingotherinput varchar(30),
13  workfulltime varchar(5) default NULL,
```

5.7 View.php

This code is run when the “Edit” button is selected for the form and it points the code to the New.php.



```
new.php x info.txt x report.php x save.php x table.sql x view.php x
1 <?php
2   include("new.php");
3   ?>
4
```

6 Changes to the form

6.1 Adding Fields to Radio Button Questions

Each Radio Question points to one varchar(30) column in the SQL table. Therefore, answers can be added with an insert to the new.php code.

6.1.1 Changes in New.php

First, find the question in the code. For this example we will add another selection to the Disability Question:

```
<fieldset>
  <legend><?php echo xlt('Do you or any of your family members have a disability?')?></legend>
  <div class="container">
    <div class="row">
      <div class="col-12">
        <div class="form-group">
          <div class="form-radio">
            <input type="radio" name="disability" id="disabilityyes" value="disabilityyes" <?php echo ($obj["disability"] == "disabilityyes") ? "checked" : "" ?>/>
            <label class="form-check-label" for="disabilityyes"><?php echo xlt('Yes');?></label>
          </div>
          <div class="form-radio">
            <input type="radio" name="disability" id="disabilityno" value="disabilityno" <?php echo ($obj["disability"] == "disabilityno") ? "checked" : "" ?>/>
            <label class="form-check-label" for="disabilityno"><?php echo xlt('No');?></label>
          </div>
          <div class="form-radio">
            <input type="radio" name="disability" id="disabilitynotans" value="disabilitynotans" <?php echo ($obj["disability"] == "disabilitynotans") ? "checked" : "" ?>/>
            <label class="form-check-label" for="disabilitynotans"><?php echo xlt('Choose not to answer');?></label>
          </div>
        </div>
      </div>
    </div>
  </div>
</fieldset>
```

Copy the 4 lines of the first radio selection to below it. Update the label in the 'Yes' selection to 'Yes – Self'. Then update the id, value, and label to 'Yes – Family'.

```
<div class="form-radio">
  <input type="radio" name="disability" id="disabilityyes" value="disabilityyes" <?php echo ($obj["disability"] == "disabilityyes") ? "checked" : "" ?>/>
  <label class="form-check-label" for="disabilityyes"><?php echo xlt('Yes - Self');?></label>
</div>
<div class="form-radio">
  <input type="radio" name="disability" id="disabilityfamily" value="disabilityfamily" <?php echo ($obj["disability"] == "disabilityfamily") ? "checked" : "" ?>/>
  <label class="form-check-label" for="disabilityfamily"><?php echo xlt('Yes - Family Member');?></label>
</div>
<div class="form-radio">
  <input type="radio" name="disability" id="disabilityno" value="disabilityno" <?php echo ($obj["disability"] == "disabilityno") ? "checked" : "" ?>/>
  <label class="form-check-label" for="disabilityno"><?php echo xlt('No');?></label>
</div>
<div class="form-radio">
  <input type="radio" name="disability" id="disabilitynotans" value="disabilitynotans" <?php echo ($obj["disability"] == "disabilitynotans") ? "checked" : "" ?>/>
  <label class="form-check-label" for="disabilitynotans"><?php echo xlt('Choose not to answer');?></label>
</div>
```

6.1.2 Add in Scoring

Next go to the top of New.php to add in a line for scoring. For this example, we'll add 3 points to disabilityfamily and leave disabilityyes with 5.

```
44 function CalculateTotal() {
45     let totalscore = 0;
46     if (document.getElementById('lessthanhs').checked == true) {totalscore +=5; }
47     if (document.getElementById('highschool').checked == true) {totalscore +=3; }
48     if (document.getElementById('associate').checked == true) {totalscore +=1; }
49     if (document.getElementById('disabilityyes').checked == true) {totalscore +=5; }
50     if (document.getElementById('disabilityfamily').checked == true) {totalscore +=3; }
51     if (document.getElementById('housetemporary').checked == true) {totalscore +=2; }
52     if (document.getElementById('houseunsafe').checked == true) {totalscore +=2; }
53     if (document.getElementById('housecar').checked == true) {totalscore +=3; }
```

6.1.3 Add in Report.php for Risks

To ensure that it gets added into the Social Screening Risks list, copy the 3 rows for disabilityyes and update the value and label.

```
60      echo "<tr></tr><td><span class=text> . xlt('Some College') . </span></td></tr>";
61    }
62    if ($sdohData['disability'] == 'disabilityyes') {
63      echo "<tr></tr><td><span class=text> . xlt('Disability Self or Family') . </span></td></tr>";
64    }
65    if ($sdohData['disability'] == 'disabilityfamily') {
66      echo "<tr></tr><td><span class=text> . xlt('Disability in Family') . </span></td></tr>";
67    }
68    if ($sdohData['housing'] == 'housetemporary') {
69      echo "<tr></tr><td><span class=text> . xlt('Housing Instability: Temporary(Shelter, Friends, Family)') . </span></td></tr>";
70    }
71    if ($sdohData['housing'] == 'houseunsafe') {
72      echo "<tr></tr><td><span class=text> . xlt('Housing Instability: Unsafe (Mold, Exposure)') . </span></td></tr>";
73    }
74  }
```

6.1.4 Add in Report.php for Diagnoses

In this case we do not have a separate Diagnoses for “Disability” so I copied lines from a different diagnoses and created one for “Disability”. For radio boxes, the first field is the name of the radio button or SQL column, and the second field is the value.

```
451    if ($sdohData['moneyfood'] == 'on'
452        || $sdohData['transportfood'] == 'on'
453    )
454    {
455      echo "<tr></tr><td><span class=text> . xlt('Food Insecurity') . </span></td></tr>";
456    }
457
458    if ($sdohData['disability'] == 'disabilityyes'
459        || $sdohData['disability'] == 'disabilityfamily'
460    )
461    {
462      echo "<tr></tr><td><span class=text> . xlt('Disability Test') . </span></td></tr>";
463    }
464  }
```

6.2 Adding Fields to Checkbox Questions

Each Checkbox in the multi-check questions corresponds to its own SQL column so there are a few more steps when adding Checkbox Fields

6.2.1 Add in New.php

This example is adding test1 and test2 ids to the checkbox question by copying the lines from above.

```
367 <legend><?php echo xlt('Are you a primary caregiver for any of the following? Check all that apply. ');></legend>
368 <div class="container">
369   <div class="row">
370     <div class="col-12">
371       <div class="form-group">
372         <div class="form-check">
373           <input type="checkbox" class="form-check-input" id="careno" name="careno" <?php echo ($obj["careno"] == "on") ? "checked" : "" ;?> />
374           <label class="form-check-label" for="careno"><?php echo xlt('Not a primary caregiver');?></label>
375         </div>
376         <div class="form-check">
377           <input type="checkbox" class="form-check-input" id="test1" name="test1" <?php echo ($obj["test1"] == "on") ? "checked" : "" ;?> />
378           <label class="form-check-label" for="test1"><?php echo xlt('Check Test1');?></label>
379         </div>
380         <div class="form-check">
381           <input type="checkbox" class="form-check-input" id="test2" name="test2" <?php echo ($obj["test2"] == "on") ? "checked" : "" ;?> />
382           <label class="form-check-label" for="test2"><?php echo xlt('Check Test2');?></label>
383         </div>
384       </div>
385     </div>
386   </div>
387 </div>
```

6.2.2 Add in Scoring on New.php

Similar to the radio, this should also be added to the score if it is a risk.

```
44 function CalculateTotal() {
45     let totalscore = 0;
46     if (document.getElementById('lessthanhs').checked == true) {totalscore +=5; }
47     if (document.getElementById('highschool').checked == true) {totalscore +=3; }
48     if (document.getElementById('associate').checked == true) {totalscore +=1; }
49     if (document.getElementById('disabilityyes').checked == true) {totalscore +=5; }
50     if (document.getElementById('disabilityfamily').checked == true) {totalscore +=3; }
51     if (document.getElementById('housetemporary').checked == true) {totalscore +=2; }
52     if (document.getElementById('houseunsafe').checked == true) {totalscore +=2; }
53     if (document.getElementById('housecar').checked == true) {totalscore +=3; }
```

6.2.3 Add in Report.php for Risks

Add the Risks into the top section of Report.php.

```
100 if ($sdohData['careunder5'] == 'on') {
101     echo "<tr></tr><td><span class=text> . xlt("Caregiver for Children Under 5") . "</span></td></tr>";
102 }
103 if ($sdohData['test1'] == 'on') {
104     echo "<tr></tr><td><span class=text> . xlt("Checked Test 1") . "</span></td></tr>";
105 }
106 if ($sdohData['test2'] == 'on') {
107     echo "<tr></tr><td><span class=text> . xlt("Checked Test 2") . "</span></td></tr>";
108 }
109 }
```

6.2.4 Add in Report.php for Diagnoses

A new section for test diagnoses was added and copied from the lines above it.

```
451 if ($sdohData['moneyfood'] == 'on'
452 || $sdohData['transportfood'] == 'on'
453 )
454 {
455     echo "<tr></tr><td><span class=text> . xlt("Food Insecurity") . "</span></td></tr>";
456 }
457
458 if ($sdohData['test1'] == 'on'
459 || $sdohData['test2'] == 'on'
460 )
461 {
462     echo "<tr></tr><td><span class=text> . xlt("Test Diagnoses") . "</span></td></tr>";
463 }
```

6.2.5 Add in Save.php for input into SQL table

There are 2 separate sections for the Save.php code. Be sure to add the new field to both sections.

```
59 careunder5=? ,
60 test1=? ,
61 test2=? ,
62 care5to12=? ,
63 careover12=? ,
```

And on the bottom section:

```
194     ($_POST["careunder5"] ?? null),
195     ($_POST["care5to12"] ?? null),
196     ($_POST["test1"] ?? null),
197     ($_POST["test2"] ?? null),
198     ($_POST["careover12"] ?? null),
199     ($_POST["carespecneeds"] ?? null),
```

6.2.6 Add into Table.sql

The last step in PHP is to add the columns to the SQL table.

```
26     careno varchar(5) default NULL,
27     careunder5 varchar(5) default NULL,
28     test1 varchar(5) default NULL,
29     test2 varchar(5) default NULL,
30     care5to12 varchar(5) default NULL,
31     careover12 varchar(5) default NULL,
```

6.2.7 Save and Export Code

6.2.8 Disable and Remove Form from Forms Administration

6.2.9 Reregister and enable Form

6.3 Add Input Field

There are a few different types of fields that can be added from the examples already in the forms. Note that these will always require the same steps as the Checkbox additions since they will require new columns. Please refer to steps 6.2.2 to 6.2.9 above.

6.3.1 Integer Field Examples

```
<legend><?php echo xlt('How many hours do you work in a week?')?></legend>
<div class="container">
  <div class="row">
    <div class="col-12">
      <div class="form-group">
        <div class="form-number">
          <input type="number" id="workhours" name='workhours' min="0" max="200" value="<?php echo ($obj["workhours"]); ?>"/>
        </div>
      </div>
    </div>
  </div>
</div>
</fieldset>
<fieldset>
  <legend><?php echo xlt('What is the total income for all your family in the past year? (This will help us know if you are eligible for benefits)')?></legend>
  <div class="container">
    <div class="row">
      <div class="col-12">
        <div class="form-group">
          <div class="form-number">
            <input type="number" id="hhincome" name='hhincome' min="0" max="10000000" value="<?php echo ($obj["hhincome"]); ?>"/>
          </div>
        </div>
      </div>
    </div>
  </div>
</div>
</fieldset>
```

6.3.2 Text Field (Other Input)

Note that on the Other Input fields, the field is within the same div tag as the Other checkbox so it appears on the same line. If you would like it to be a separate line and question than you can use the Number input format but change the type and size references.

```
<div class="form-check">
  <input type="checkbox" class="form-check-input" id="debtother" name='debtother' <?php echo ($obj["debtother"] == "on") ? "checked" : ""; ?>/>
  <label class="form-check-label" for="debtother"><?php echo xlt('Other');?></label>
  <input type="text" id="debtotherinput" name='debtotherinput' size="30" value="<?php echo text($obj["debtotherinput"]); ?>"/>
</div>
```

6.3.3 Text Field (Additional Notes)

The Additional Notes field at the bottom is a larger text area with separate rows.

```
<fieldset>
  <legend><?php echo xlt('Other Comments');?></legend>
  <div class="container">
    <div class="row">
      <div class="col-12">
        <div class="form-group">
          <textarea name="additional_notes" class="form-control" cols="80" rows="5" ><?php echo text($obj["additional_notes"]); ?></textarea>
        </div>
      </div>
    </div>
  </div>
</fieldset>
```

7 Appendix

7.1 Sample Form - Social Screening Tool

1. What is the highest level of education that you have completed?
 - Less than High School
 - High School Diploma or GED
 - 2 Year College or Vocational Degree
 - Bachelors Degree
 - Advanced Degree, Masters or Doctorate
 - Choose not to answer
2. Do you or any of your family members have a disability?
 - Yes
 - No
 - Choose not to answer
3. What is your housing situation today?
 - Permanent and Safe
 - Temporary (shelter, family, friends)
 - Unsafe housing (mold, exposure, unclean)
 - Car, van, or mobile home
 - Unsheltered (tent, park, vacant lot)
 - Other:
 - Choose not to answer
4. What is your current work situation? Check all that apply.
 - Full Time
 - Part Time
 - Temporary
 - Seasonal or Migrant
 - Looking for Work
 - Retired
 - Disabled
 - Student
 - Not Employed Outside the Home
 - Choose not to answer
5. How many hours do you work in a week?
6. What is the total income for all your family in the past year? (This will help us know if you are eligible for benefits)

-
7. How many people are in your household? Including yourself.
8. Are you a primary caregiver for any of the following? Check all that apply.
- Not a primary caregiver
 - Children under 5
 - Children age 5 to 12
 - Children over 12
 - Special Needs Child
 - Disabled or Ill Adult
 - Elderly
 - Other
9. Do you or a family member owe money that you struggle to pay back? Check all that apply.
- No debt
 - Medical Bills
 - Credit Cards
 - Rent/Mortgage
 - Student Loans
 - Taxes
 - Legal Fees
 - Car Loan or License
 - Utilities
 - Other
10. In the past year, have you or a family member struggled to pay for any of the following? Check all that apply.
- No Financial Struggles
 - Healthy Food
 - Medicine or Medical Care
 - Child Care or School
 - Utilities (Power, water)
 - Phone, Internet
 - Rent or Mortgage
 - Transportation
 - Clothing
 - Education
 - Other
11. In the past year, has lack of transportation prevented you or a family member from any of the following? Check all that apply.

-
- No Transportation Problems
 - Medical Care
 - Access to Healthy Food
 - Work or Meetings
 - School or Childcare
 - Visit Family or Friends
 - Other

12. In the past year, have you or a family member not gotten medical care because of any of the following? Check all that apply.

- No delayed medical care
- No Insurance
- Copay or Deductible is too high
- Needed care is not covered by insurance
- Not able to take time off work
- No provider available
- Did not understand provider recommendations
- Lack of trust in medical care
- No child care
- Other

13. In the past year, have you and your family members seen dentists?

- Yes
- No, not insured
- No, need dentist
- No, not able to take time off work
- No, other
- Choose not to answer

14. How often do you see or talk to people that you care about or feel close to? (For example: talking to friends on the phone, visiting friends or family, going to church or club meetings)

- Less than once a week
- 1 time a week
- 2-3 times a week
- 4-5 times a week
- Almost every day
- Choose not to answer

15. Stress is when someone feels tense, nervous, anxious, or can't sleep at night because their mind is troubled. How stressed are you?

-
- Not at all
 - A little bit
 - Somewhat
 - Quite a bit
 - Very Much
 - Choose not to answer

16. In the past year, have you had any of the following stressful life events occur? Check all that apply.

- No Stressful Life Events
- Death of a loved one
- Divorce or separation
- Loss of job
- Moved
- Major illness or injury
- Victim of a crime
- Witness of a crime or accident
- Legal Issues
- Homeless
- Incarcerated
- Bankruptcy
- Marriage
- Birth of a child
- Child moving out
- Other

17. Do you feel safe walking and living in your neighborhood?

- Yes, all the time
- Yes, during the day
- No
- Choose not to answer

18. In the past year, have you or a family member been afraid of a partner or ex-partner?

- Yes
- No
- Choose not to answer

19. In the past year, have you been a female headed household?

- Yes
- No

-
- Choose not to answer
20. In the past year, have you or anyone in your family struggled with addiction?
- Yes
- No
- Choose not to answer
21. Have you ever been discharged from the Armed Services?
- Yes
- No
- Choose not to answer
22. Are you a refugee?
- Yes
- No
- Choose not to answer
23. In the past year, have you been discriminated against because of any of the following? Check all that apply.
- No Discrimination
- Race/Ethnicity
- Gender
- Sexual Preference
- Gender Expression
- Religion
- Disability
- Age
- Weight
- Socioeconomic Status
- Education
- Marital Status
- Citizenship
- Accent or Language
- Criminal History
- Other
24. In what situations have you been discriminated in? Check all that apply.
- No Discrimination
- Employment
- Housing
- Health Care

-
- Law Enforcement
 - Education
 - In Public (Shopping, Dining, Parks)
 - Religious or Civic Organizations
 - Government
 - Banks or Finance Services
 - Other

25. Would you like to be contacted with resources or assistance?

- Yes, by phone
- Yes, by email
- Yes, by portal message
- No
- Other

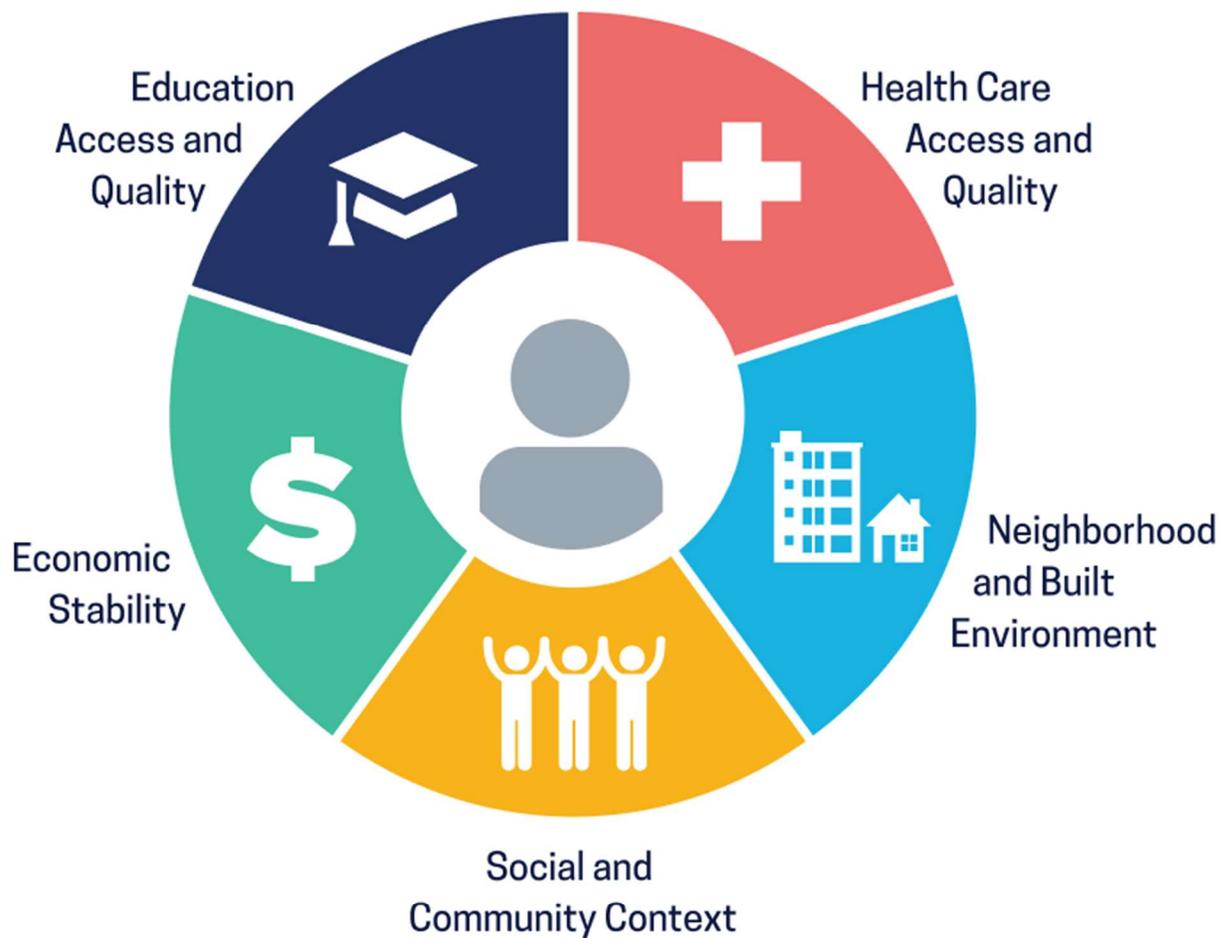
Your total score is

Other Comments

7.2 SDOH Infographics

7.2.1 Healthy People 2030

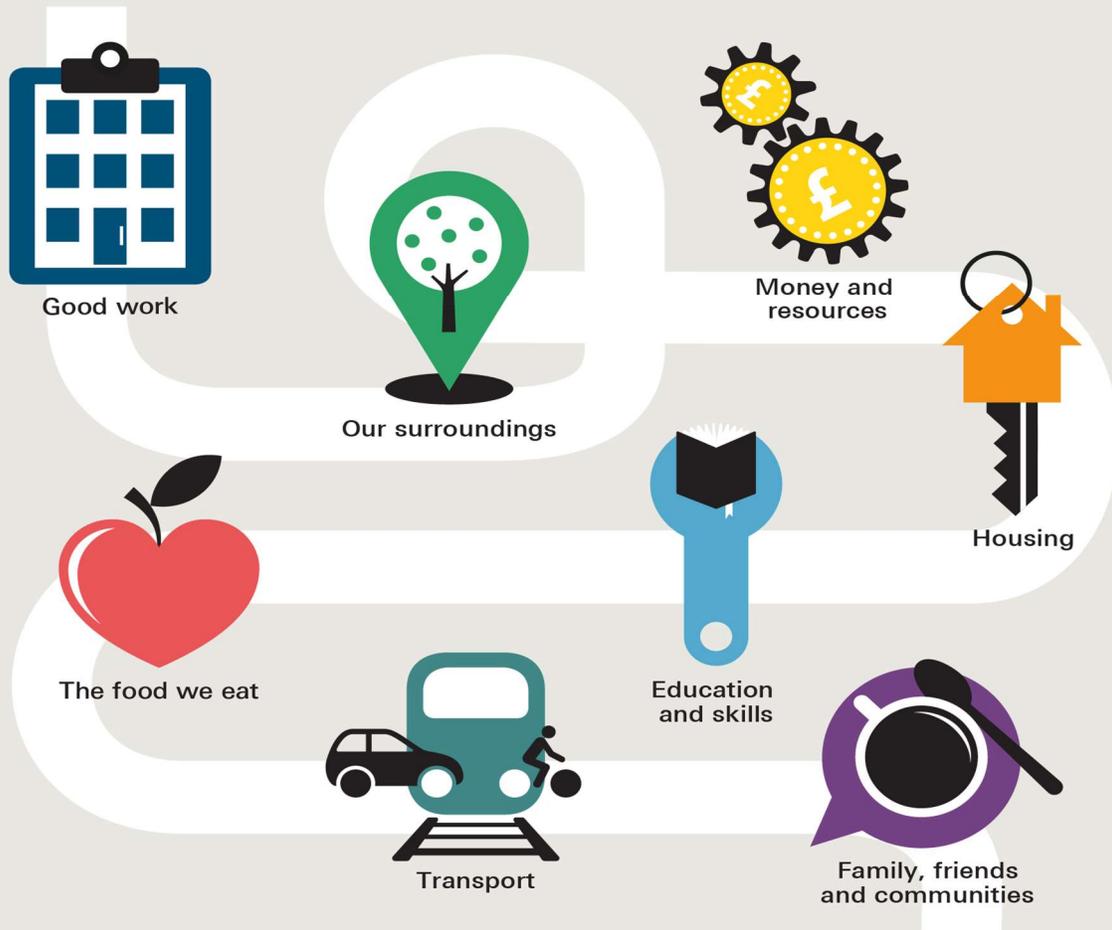
Social Determinants of Health



What makes us healthy?

Good health matters, to individuals and to society. But we don't all have the same opportunities to live healthy lives.

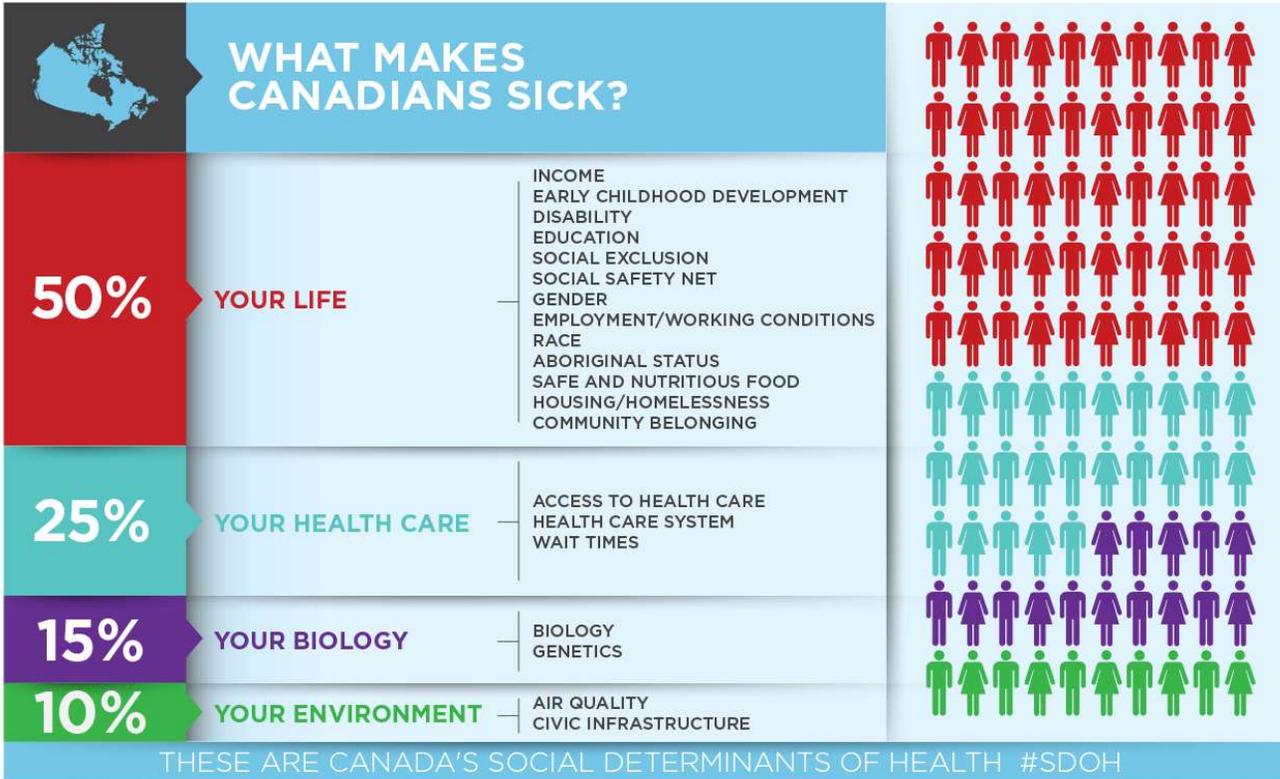
To understand why, we need to look at the bigger picture:



The healthy life expectancy gap between the most and least deprived areas in England is over **18** YEARS

Find out more: [health.org.uk/what-makes-us-healthy](https://www.health.org.uk/what-makes-us-healthy)

7.2.4 The Homeless Hub, Canada



7.2.5 American Hospital Association

