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# Creating Patient Instructions for Community Health Resources

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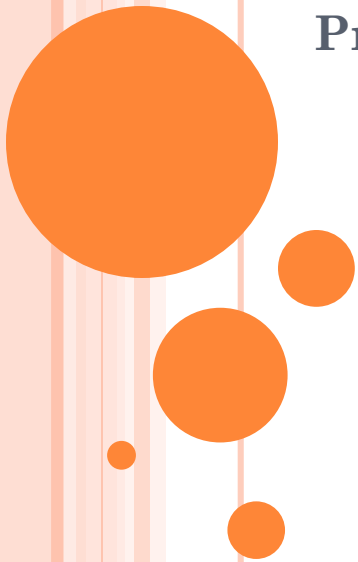
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# CREATING PATIENT INSTRUCTIONS FOR COMMUNITY HEALTH RESOURCES

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# PROBLEM IDENTIFICATION AND DESCRIPTION OF NEED

In the US, more than a third of adults are obese as well as 17% of children [1,7]. A recent report estimates the annual cost of obesity in Maine amounts to approximately 452 million dollars [2]. Additional reports estimate the cost of obesity to the entire country lies somewhere between 10-30 billion annually [3]. Those who fall under the category of “Abormal BMI” (above 30, below 18.5) comprised 60% of a recent random sampling of MCMH charts [4].

Encouraging patients to have healthy diet rich with whole grains, fruits, and vegetables, and to maintain regular exercise (150 minutes a week) are effective ways to combat higher BMIs and to stave off associated hypertension, coronary artery disease, type II diabetes, and dyslipidemia.

The clinic currently has a fund of references for walks, fitness locations, and even home exercise instructions to provide patients, but none of this information is accessible and in a central location. An easy way to print out resources for patients to include in discharge instructions could be an effective intervention in enabling and encouraging patients towards weight loss and nutritional health.



# PUBLIC HEALTH STATISTICS FOR MAINE AND LOCAL COUNTIES

## BMI % of adults who report a BMI ≥ 30

Hancock County	25%
Washington County	32%

## % of adults who have adequate access to locations for physical activity

Hancock County	66%
Washington County	38%
All of Maine	57%

## Physical Activity - % of adults over 20 who report no leisure time activity

Hancock County	21%
Washington County	30%
All of Maine	22%

\*Data in tables gathered from “County Health Rankings and Roadmaps”, from the University of Wisconsin Public Health Institute. [5]

In a 2009 Lancet study examining all cause mortality versus BMI, above 25 kg/m<sup>2</sup>, mortality was on average approximately 30 percent higher for every 5 kg/m<sup>2</sup> higher BMI. At 30-35 kg/m<sup>2</sup>, median survival was reduced by 2-4 years; at 40-45 kg/m<sup>2</sup> median survival was reduced by 8-10 years. [6]



# COMMUNITY PERSPECTIVE ON ISSUES AND SUPPORT FOR PROJECT

*Name Withheld*, MCMH Customer Service/Volunteer Coordinator, “a slough of volunteers who maintain our fitness programs are retiring this summer. No one has stepped forward to take their place. Can’t put forward a list right now because we are in transition.”

*Name Withheld*, pre-diabetes education and Hannaford/MCMH Dietician  
Biggest challenges people face are financial challenges and eating well in the winter months. Summer is better because people are growing their own food and people share with one another, but winter is difficult to access ideas for fitness. Challenge is to identify things people can do for exercise when they have limited access to walking paths and workout centers nearby.



# INTERVENTION AND METHODOLOGY

The intervention is to compile all resources into a single printout, and to integrate it into the current Meditech system enabling clinicians to print out patient instructions for exercise opportunities/nutritional advice/support groups in the midst of 15-20 minute office visits. There will be three separate printouts unique to Mount Desert Island, the Ellsworth area, and the Down East region.

Methodology: Gather available resources at clinic, in the community, and online, including past project compilation by MS-III UVM medical student Nicholas Monte (from R1, 2014). Update/compile them into a single document, meet with IT to integrate document into the system.



# RESULTS & RESPONSE DATA

The results of this intervention will be largely qualitative. We might be able to gather data on how often these instructions are printed out, and perhaps patient feedback on subsequent visits on the patient exercise form.

One idea for evaluation of the project is to begin at the beginning of a calendar year, record the number of patients with a BMI > 30, and to make it routine to provide obesity community resource patient instructions to every patient coming in for an annual visit and who has a BMI > 30. The following year, the number of patients with a BMI > 30 could once again be assessed.

Because of the length of time and the fact that BMI changes can be confounded by many other factors, an additional idea would be to identify a subset of the patient population to target with this particular intervention. The clinic already identifies patients with an H<sub>1c</sub> % > 9 and works towards identifying the unique challenges to lowering this measure in each individual. Perhaps all patients with a BMI > 30 under each providers' care could be identified and provided with the community resources to specifically work on bringing down BMI. This individual approach and identification of a single measure could prove to be a very effective intervention, as it identifies a specific goal ("let's work together to move your BMI down a few points") and provides a number of resources for both the patient and provider. The document can be a starting point for discussion and change for both parties.



# EVALUATION OF EFFECTIVENESS AND LIMITATIONS

Effectiveness of this particular document would be something best evaluated over the long term. Health benefits could be measured in a lowered BMI, subjective feelings of wellness, and perhaps better diabetes and blood pressure control. However, measuring the benefits of diet and exercise on hypertension and diabetic control might be confounded by medical interventions.

Lowering BMI in patients with this particular intervention faces a number of challenges not unique to this region. Obesity is a widespread medical, psychological, and social problem, and having access to fitness and healthy eating resources is only a small part of the solution. In many ways, to work at lowering BMI is to work against social and cultural norms.

Limitations of these patient instructions would include many things from lack of internet access, a limited capacity/desire to read the document, disinterest in changing diet and lifestyle, and limited access to transportation to get to gyms, fitness classes, doctors appointments (one patient drives his tractor to the clinic!). Indeed, the complexity of the issue requires persistence. One goal of this project is to identify as many local resources as possible so that providers and patients can have a tangible starting point of conversation and hopefully, change.





# RECOMMENDATIONS FOR FUTURE INTERVENTIONS AND PROJECTS

1. Updating all exercise program information for dates, times, locations, phone numbers. This will be an ongoing need for this document that I think will be needed twice yearly.
2. Scouting out more local places (eg Maine Coast Hospital, YMCA) that provide exercise classes for low cost or for free. Scouting out more accessible walking paths. Making connections with more local places and putting additional resources in the document. Additionally, I think adding online resources for exercise could be helpful (yoga classes or clips, home-work outs, pilates online, etc.).
3. Soliciting feed back from clinicians and office staff about effectiveness of information sheet. Future students might also solicit feedback from patients directly about how effective the information sheet is at assisting them in getting outside exercising or monitoring their diets. Helpful questions might be: Rating usefulness on a 3 pt scale, rating motivation on a 3 pt scale, rating accessibility of exercise sites on a 3 pt scale. Another idea is to find out what has worked for patients who lost weight, and to be sure this is included in so way in the resource packet.



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