



**Healthy Weight Matters**  
Young women and the reproductive health consequences of obesity

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## Disclosures

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## Acknowledgements

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- Area L AHEC for their support in providing continuing education credit for this webinar



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  - Alvina Long Valentin, RN MPH
  - North Carolina Division of Public Health, Women's Health and Physical Activity & Nutrition branches
- Specific resources used to guide the development of this training:
  - Eat Smart Move More North Carolina resources
  - The National Preconception Curriculum and Resources Guide for Clinicians (Module 1: Preconception Care: What it is and what it isn't)

## Housekeeping

- Obtaining credits
  - Groups should email [swright@marchofdimes.com](mailto:swright@marchofdimes.com)
- Asking questions
- Accessing slides at a later date



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## Objectives

- Understand the relationship between healthy weight status and opportunistic preconception health counseling
- Understand trends in overweight/obesity for women of childbearing age
- Increase awareness about the connections between weight status and birth outcomes
- Improve weight status assessment and counseling skills
- Improve service delivery to encourage patient weight status screening and weight management counseling
- Increase awareness of healthy weight resources for patients and providers

## "Opportunistic" care



- Preconception care is for every woman of childbearing age every time she is seen
- Every woman, every time

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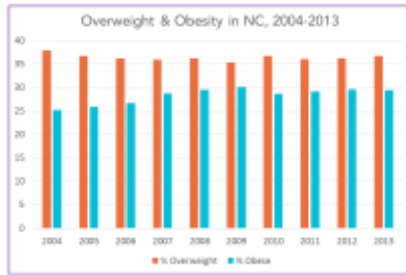
## Preconception Health: Overweight & Obesity

- Women of childbearing age who are overweight or obese are at higher risk of poor maternal and birth outcomes than women who enter pregnancy at a healthy weight
- Achieving and maintaining a healthy weight is one key component of preconception care



## Obesity in North Carolina

In 2013, two-thirds (66.1%) of adults in North Carolina were either overweight or obese



NC Behavioral Risk Factor Surveillance System - Annual Variables & Risk Factors, 2004-2013

## Women in North Carolina & Weight, 2013

- 60.4% of women in NC of childbearing age (18-44) are overweight or obese
- 50.4% of young women ages 18-34 are overweight or obese
- 25.6% of high school females are overweight or obese
- There is also a racial disparity in weight status
  - 56.4% of white women are overweight or obese
  - 74.7% of African-American women are overweight or obese
  - 55.1% of other minorities are overweight or obese

NC Behavioral Risk Factor Surveillance System, 2003; NC Youth Risk Behavior Survey, 2013

## Obesity among North Carolina mothers



NC State Center for Health Statistics, NC PRAMS, 2000-2011

## Pieces of the puzzle



[http://www.edcenteroverseas.com/ESMPlan/PDF/ESMPlan\\_Reduced.pdf](http://www.edcenteroverseas.com/ESMPlan/PDF/ESMPlan_Reduced.pdf)

## Consequences

- U.S. society focuses on external consequences of overweight and obesity, i.e. how we look
- As health professionals it can be helpful to re-frame discussions toward medical/physical consequences of overweight and obesity
- Risk of consequences increases progressively as BMI increases
- For women of childbearing age the consequences of overweight & obesity span two generations

Kalish, S. Maternal weight: An opportunity to impact infant mortality in North Carolina. 2010.

## Pregnancy risks

- Increased pre-pregnancy BMI is associated with increased risk of:
  - Preeclampsia
  - Gestational Diabetes
  - Gestational Hypertension
  - C-section
  - Induction of labor
  - Postpartum hemorrhage

Kalish, S. Maternal weight: An opportunity to impact infant mortality in North Carolina. 2010.

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## And for the baby...

- Macrosomia
- Preterm delivery
- Poor APGAR scores
- NICU admission
- Shoulder dystocia
- Late fetal death
- NTDs (Anencephaly and spina bifida)

Kalish, S. Maternal weight: An opportunity to impact infant mortality in North Carolina. 2010.

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## The cycle repeats

- Babies born to overweight mothers are more likely to become obese children
- The likelihood that overweight children will become obese adults is almost nine times higher than the risk for children who are not overweight



Freedman, Khan, Serfaty, et al. (2005). The relation of childhood BMI to adult adiposity: the Bogalusa Heart Study. *Archives*, 171(11): 22-7.

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## Beyond pregnancy

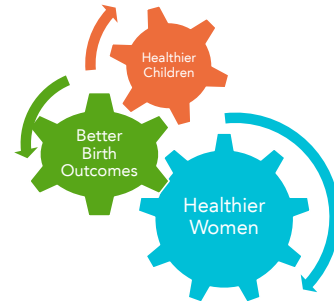


Women who are overweight or obese are more likely to have:

- A higher risk of uterine cancer (2-5 times greater)
- Increased risk of death from uterine and breast cancers
- Depression
- Irregular periods
- Problems getting pregnant
- Greater risk of contraception/birth control not working

© Sanger PA. Medical hazards of obesity. Ann Intern Med. 1995;123:655-660.

## Summary



## How do you define "healthy weight"?

A weight range that correlates with a lesser risk of health conditions like heart disease, high blood pressure, and diabetes\*

\*when compared to those in the normal/healthy BMI category



Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. National Institutes of Health. NIH Publication NO. 98-4383, September 1998. [http://www.nhlbi.nih.gov/sp/obesity/obesity\\_ida\\_gd.htm.pdf](http://www.nhlbi.nih.gov/sp/obesity/obesity_ida_gd.htm.pdf)

## Providers and weight

- Most overweight patients believe they should lose weight, but this is seldom discussed during visits with health care providers
- Most patients want more help with weight management than they are getting from their primary care physicians



Poster MB, Yu JD, Coughlin-Mitchell M. Weight management: what patients want from their primary care physicians. Fam Pract. 2001 Jun;19(6):513-8.

## Why don't patients ask for help?

- Frustration from prior attempts
- Lack of motivation
- Lack of knowledge
- Lack of family or community support
- Fear of embarrassment
- Cost concerns
- Racial disparities--Caucasian women had a more negative view of obesity than did African-American women

Bardis A, Holian SC, Szank JM, Thompson WG. Diagnosis of Obesity by Primary Care Physicians and Impact on Obesity Management. Mayo Clin Proc. 2007;82(8):987-993.

## Why don't providers bring it up?

- Lack of time to counsel
- Lack of knowledge
- Fear of embarrassing patient
- Frustration from prior attempts
- Forgetting to talk about it or document it
- Perception of patient motivation
- Lack of belief the treatment will be effective
- Possible influence of provider's weight status

Bardis A, Holian SC, Szank JM, Thompson WG. Diagnosis of Obesity by Primary Care Physicians and Impact on Obesity Management. Mayo Clin Proc. 2007;82(8):987-993.

## Tips for talking with patients

- Don't ignore weight
- Set small goals! Every little bit helps! Example: No more weight gain before next pregnancy
- Use objective measures such as BMI



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## Body Mass Index (BMI)

- An objective way to start the conversation about a patient's weight
- In focus groups, young women, 18-24, were impacted by seeing their BMI on a chart
- Combined with the words "overweight" and "obese" their awareness of their weight was raised and they felt motivated for change



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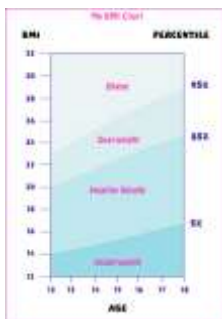
## Body Mass Index (BMI)

- A measure used to compare your weight to your height to assess your risk for weight-related health conditions
- BMI=  $\frac{\text{(Weight in Pounds)} \times 703}{\text{(Height in inches)} \times \text{(Height in inches)}}$
- Opportunities:
  - Family Planning Flow Sheet
  - Physical Activity & Nutrition Behaviors Monitoring Form (ESMM)
  - Patient intake forms

## Body Mass Index (BMI)

HEIGHT	WEIGHT IN POUNDS																Underweight <18.5			
	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250				
4'0"	22	24	26	28	30	33	35	37	39	41	43	45	47	49	51	53	<table border="1"> <tr><td>Healthy weight 18.5 - 24.9</td></tr> <tr><td>Overweight 25 - 29.9</td></tr> <tr><td>Obese 30+</td></tr> </table>	Healthy weight 18.5 - 24.9	Overweight 25 - 29.9	Obese 30+
Healthy weight 18.5 - 24.9																				
Overweight 25 - 29.9																				
Obese 30+																				
4'1"	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53				
4'2"	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54				
4'3"	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55				
4'4"	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56				
4'5"	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57				
4'6"	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58				
4'7"	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59				
4'8"	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60				
4'9"	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61				
4'10"	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62				
4'11"	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63				
5'0"	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64				
5'1"	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65				
5'2"	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66				
5'3"	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67				
5'4"	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68				
5'5"	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69				
5'6"	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70				
5'7"	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71				
5'8"	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72				
5'9"	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73				
5'10"	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74				
5'11"	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75				
6'0"	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76				

## Body Mass Index for adolescents



- The BMI chart is designed for adults ages 20 and up
- For patients under 20, first calculate BMI with regular chart
- Then use this adolescent chart and find BMI on left
- Then find age at bottom and see where the two numbers meet

## Weight gain during pregnancy

Prepregnancy Weight Category	Body Mass Index	Recommended Range of Total Weight Gain (lb)	Recommended Range of Weight Gain* in 2 <sup>nd</sup> & 3 <sup>rd</sup> Trimesters (lb) (Mean Range [lb/wk])
Underweight	Less than 18.5	28-40	1 (1-1.3)
Healthy Weight	18.5-24.9	25-35	1 (0.8-1)
Overweight	25-29.9	15-25	0.6 (0.5-0.7)
Obese (all classes)	30 and greater	11-20	0.5 (0.4-0.6)

\*Calculations assume a 1.1-4.4lb weight gain in the first trimester

ACOG. 2013. Weight gain during pregnancy. <http://www.acog.org/Resources/And/Publications/Committee-Opinions/Committee-on-Obstetrics-Practice/Weight-Gain-During-Pregnancy>

## Healthy Habits for Life!



- Interactive booklet
- Review with client
- Based on Eat Smart, Move More
- Order from the NC DPH Women's Health Branch
- Let's take a look...

## Body Mass Index (BMI)

Height	WEIGHT IN POUNDS														
	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240
4'0"	22	24	26	28	30	32	34	36	38	41	43	45	47	49	51
5'0"	37	41	45	50	55	60	65	70	75	80	85	90	95	100	105
6'0"	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138
7'0"	73	80	87	94	101	108	115	122	129	136	143	150	157	164	171
8'0"	94	103	112	121	130	139	148	157	166	175	184	193	202	211	220
9'0"	117	128	139	150	161	172	183	194	205	216	227	238	249	260	271
10'0"	142	155	168	181	194	207	220	233	246	259	272	285	298	311	324
11'0"	169	184	199	214	229	244	259	274	289	304	319	334	349	364	379
12'0"	198	215	232	249	266	283	300	317	334	351	368	385	402	419	436
13'0"	229	248	267	286	305	324	343	362	381	400	419	438	457	476	495
14'0"	262	283	304	325	346	367	388	409	430	451	472	493	514	535	556
15'0"	297	320	343	366	389	412	435	458	481	504	527	550	573	596	619
16'0"	334	359	384	409	434	459	484	509	534	559	584	609	634	659	684
17'0"	373	400	427	454	481	508	535	562	589	616	643	670	697	724	751
18'0"	414	443	472	501	530	559	588	617	646	675	704	733	762	791	820
19'0"	457	488	519	550	581	612	643	674	705	736	767	798	829	860	891
20'0"	502	535	568	601	634	667	700	733	766	799	832	865	898	931	964
21'0"	549	584	619	654	689	724	759	794	829	864	899	934	969	1004	1039
22'0"	598	635	672	709	746	783	820	857	894	931	968	1005	1042	1079	1116
23'0"	649	688	727	766	805	844	883	922	961	1000	1039	1078	1117	1156	1195
24'0"	702	743	784	825	866	907	948	989	1030	1071	1112	1153	1194	1235	1276
25'0"	757	800	843	886	929	972	1015	1058	1101	1144	1187	1230	1273	1316	1359
26'0"	814	859	904	949	994	1039	1084	1129	1174	1219	1264	1309	1354	1399	1444
27'0"	873	920	967	1014	1061	1108	1155	1202	1249	1296	1343	1390	1437	1484	1531
28'0"	934	983	1032	1081	1130	1179	1228	1277	1326	1375	1424	1473	1522	1571	1620
29'0"	997	1048	1099	1150	1201	1252	1303	1354	1405	1456	1507	1558	1609	1660	1711
30'0"	1062	1115	1168	1221	1274	1327	1380	1433	1486	1539	1592	1645	1698	1751	1804

Underweight <18.5
Healthy weight 18.5 - 24.9
Overweight 25 - 29.9
Obese 30+

## Eat Smart, Move More (ESMM)

- A statewide campaign that promotes increased opportunities for healthy eating and physical activity
- Offers different tools for people in different settings including:
  - Community
  - Family
  - Worksite
  - Health care

### Seven ESMM Target Behaviors

1. Breastfeeding
2. Rethink you drink
3. Choose to move more every day
4. Tame the tube
5. Enjoy more fruits and vegetables
6. Prepare more meals at home
7. Right size your portions

[www.eatsmartmovemorenc.com](http://www.eatsmartmovemorenc.com)

## Rethink your drink







## Reimbursement options

- CPT code 97802. Medical nutrition therapy; initial assessment and intervention, individual, face-to-face with the patient, each 15 minutes (service must be provided by a licensed dietitian/nutritionist or registered dietitian).
- CPT code 97803. Medical nutrition therapy; re-assessment and intervention, individual, face-to-face with the patient, each 15 minutes (service must be provided by a licensed dietitian/nutritionist or registered dietitian).

## Additional resources

### National Resources

- Livestrong.com
  - Free daily tracker (livestrong.com/myplate) and smartphone app available
- Shapeup.org
- Letsmove.gov
- Myfitnesspal.com
- Choosemyplate.gov

### Local Resources

- EveryWomanNC.com
- NCHealthyStart.org
- 521almostnone.com



## Healthy weight before and between pregnancies

- Provider perspective:
  - Your patient's weight today can impact her health and the health of her future children
  - Almost half of all pregnancies in North Carolina are unplanned
  - The next time you see your patient, she may be pregnant
- Patient perspective:
  - Losing weight is a goal for many women
  - Women actively planning pregnancy are often not aware of risks to themselves or baby due to overweight/obesity

## Summary

- Healthy weight is a critical component of preconception care
- Overweight and obesity is associated with increased risk for poor maternal and infant outcomes
- Providers can help by assessing female weight status at every visit and discussing Eat Smart Move More tips
- Many resources are available for patients, including the Healthy Habits brochure, online food trackers and smartphone apps

**March of Dimes North Carolina Preconception Health Campaign Contacts**

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**Questions? Comments?**

## More webinars to come!

Date	Time	Webinar Topic
Thursday, February 12, 2015	2-3pm	Folic Acid & Multivitamins: Preventing neural tube birth defects in North Carolina
Wednesday, March 11, 2015	12-1pm	The Circle of Care for Women: The role of early and effective utilization of prenatal care
Thursday, April 16, 2015	2-3:30pm	The Affordable Care Act: Services that support women of childbearing age

## Thank you!

- For more information about the Campaign and other preconception health topics visit, [EveryWomanNC.com](http://EveryWomanNC.com)
- Find us on Facebook: <http://www.facebook.com/everywomannc>
- Follow us Twitter: [@everywomannc](https://twitter.com/everywomannc)



## March of Dimes North Carolina Preconception Health Campaign

- A statewide initiative aimed at improving birth outcomes in NC by reaching out to women with important health messages before they become pregnant
- Formerly functioned as the NC Folic Acid Campaign
- Goals of the Campaign are to reduce infant mortality, birth defects, premature birth, and chronic health conditions in women, while also aiming to increase intended pregnancies in NC
- Seeks to raise awareness and inspire positive action among the general public, health care professionals, and community agencies



