



Government of Western Australia
WA Country Health Service



Obesity Vs Political Correctness – Risk Management Challenges In The Workplace

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FACING FORWARD

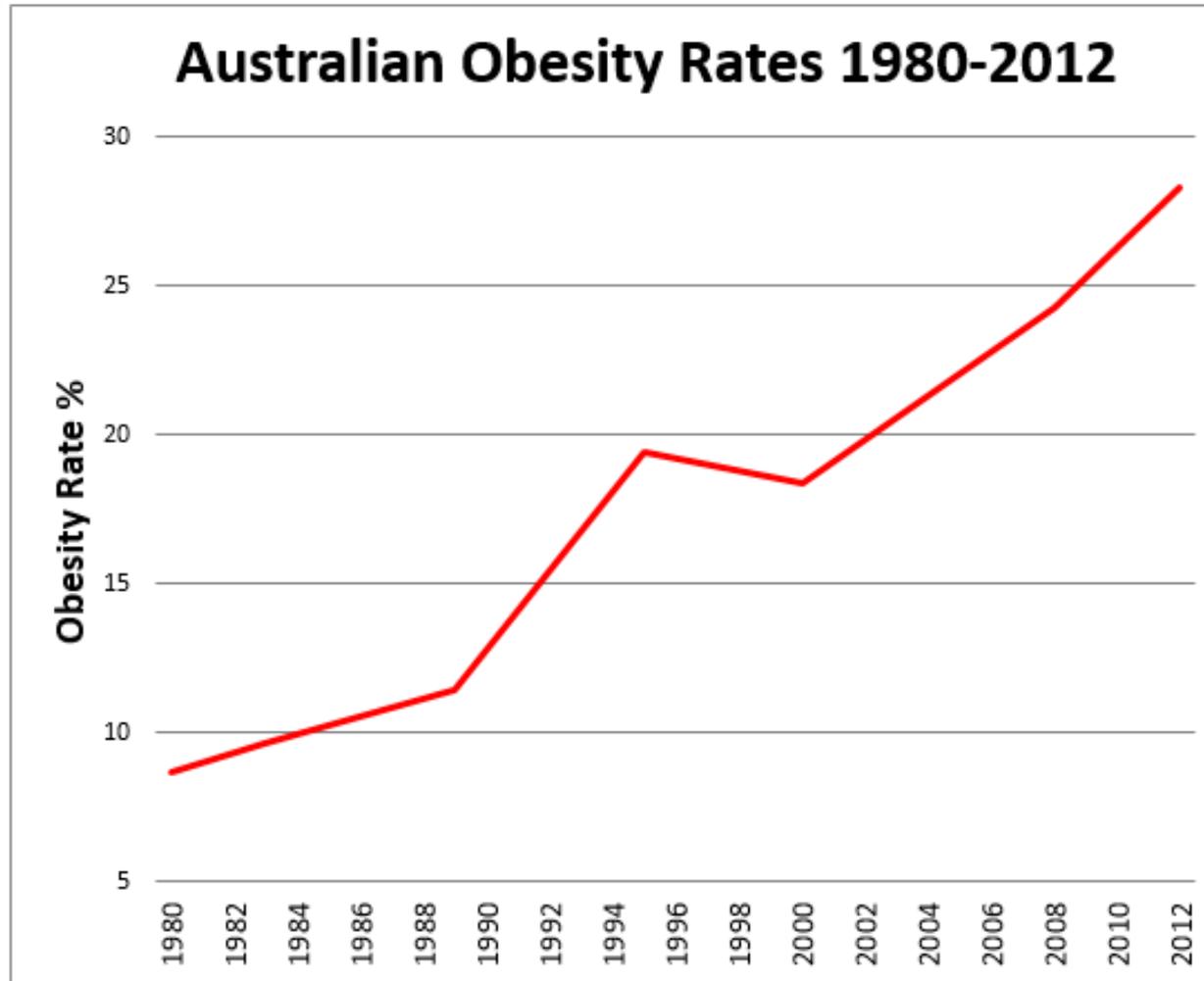
This research is a commitment to keeping nurses and other healthcare staff safe and healthy in the workplace while managing obese patients.

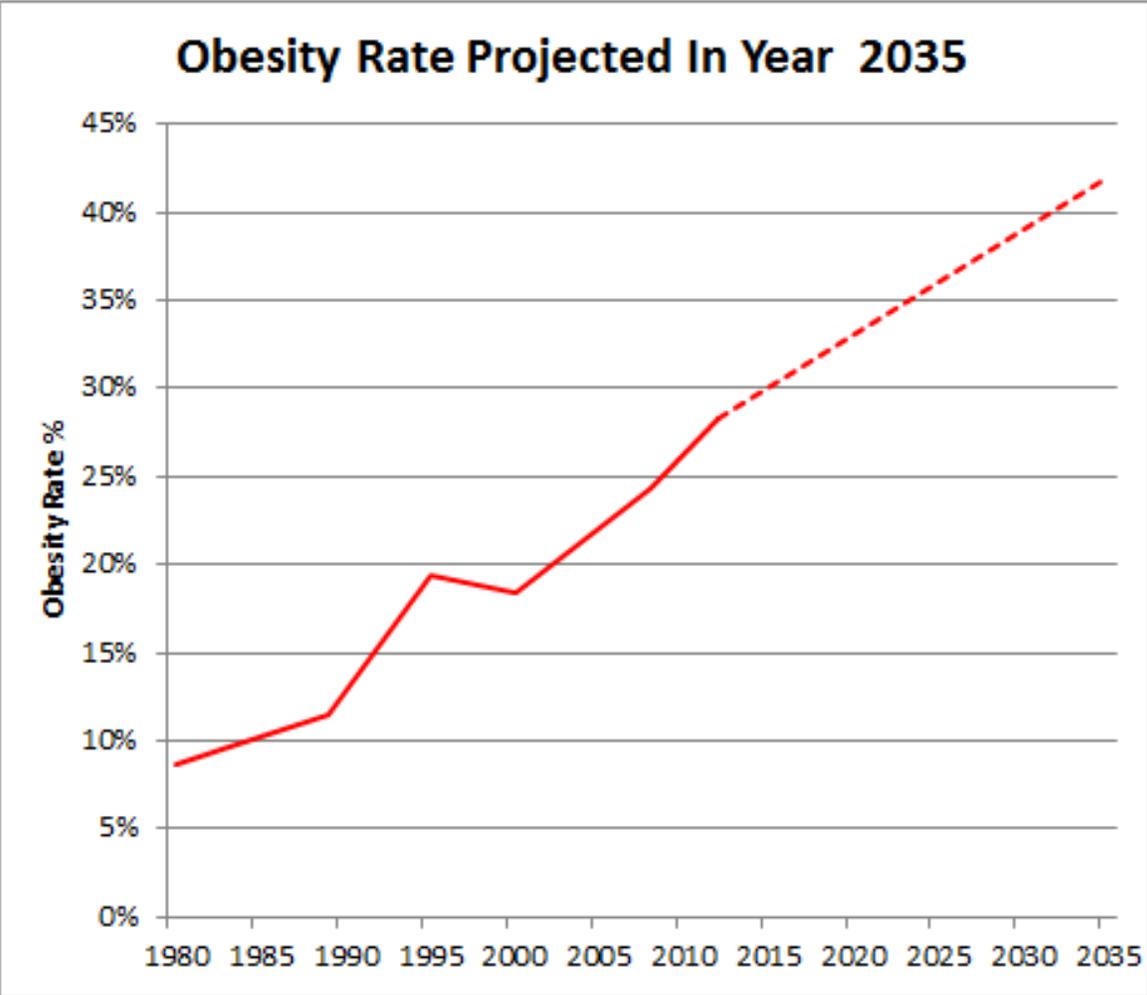


The World Health Organization (WHO) has defined the worldwide obesity problem as one of the world's most significant health problems.



Introduction / Literature Review





Source: Walls *et al*, 2012

Increasing obese patients = high risk of injuries to nurses and orderlies



Cost of Obese Patient Handling injuries to Healthcare Organisations

- The 2006-2016 WACHS Workers' Compensation report was filtered to examine workers' compensation claims relating to patient handling of bariatric patients. Analysis revealed **70 patient handling workers compensation claims that contain the bariatric-related keywords.**
- **Cost of \$1.3 million and 141 Lost days**
- **True impact of bariatric patient handling will be significantly higher** due to unreported incidents, resourcing pressures to attend work when injured, and workers' compensation claims not detailing obese/bariatric patient handling causes.

Impact of Patient Handling tasks on Healthcare Staff

- Back injury rates of nurses is one of the highest injury rates for any profession (Wardell, 2007).
- 12% to 18% of nurses annually leave the profession due to chronic back pain, and another 12% of nurses annually consider a transfer to other roles to decrease the risk of back injury (Nelson & Baptiste, 2004)
- 68% of sprains and strains suffered by nurses were directly attributed to patient handling tasks (Nelson, 2006)
- **Staff who support and manage obese patients are at a higher risk of injury than staff who manage normal weighted patients**
- The above statistics have likely increased since 2004, particularly given the aging nursing workforce and increased obesity rates.
- The true injury statistics are likely to be much higher since under-reporting of injuries in nursing is common (Nelson et al, 2006).

No-lift policy

In order to address patient handling risks, many hospitals have implemented a “no-lift” policy.

The “no-lift” policy cannot be relied on as the “answer” to bariatric PH risk management.

Obese patient handling risks are still high in country hospitals and rural and remote nursing posts due to resource challenges – staff, equipment etc.

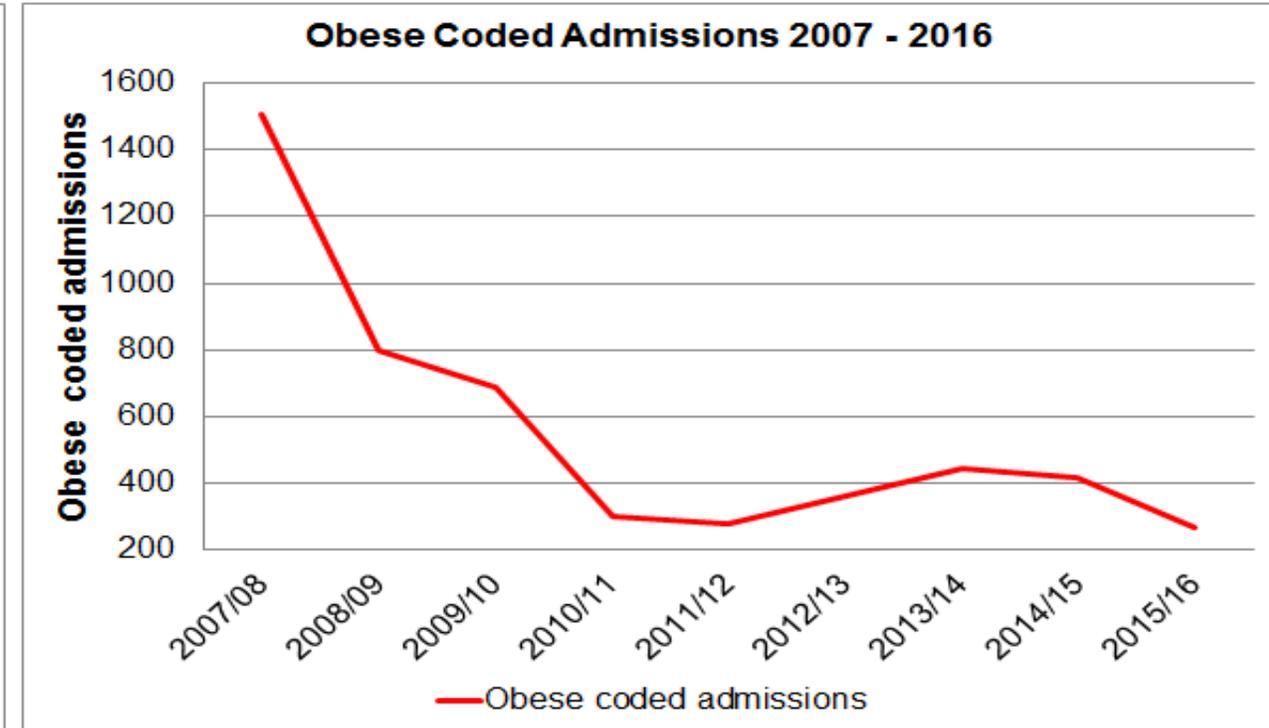
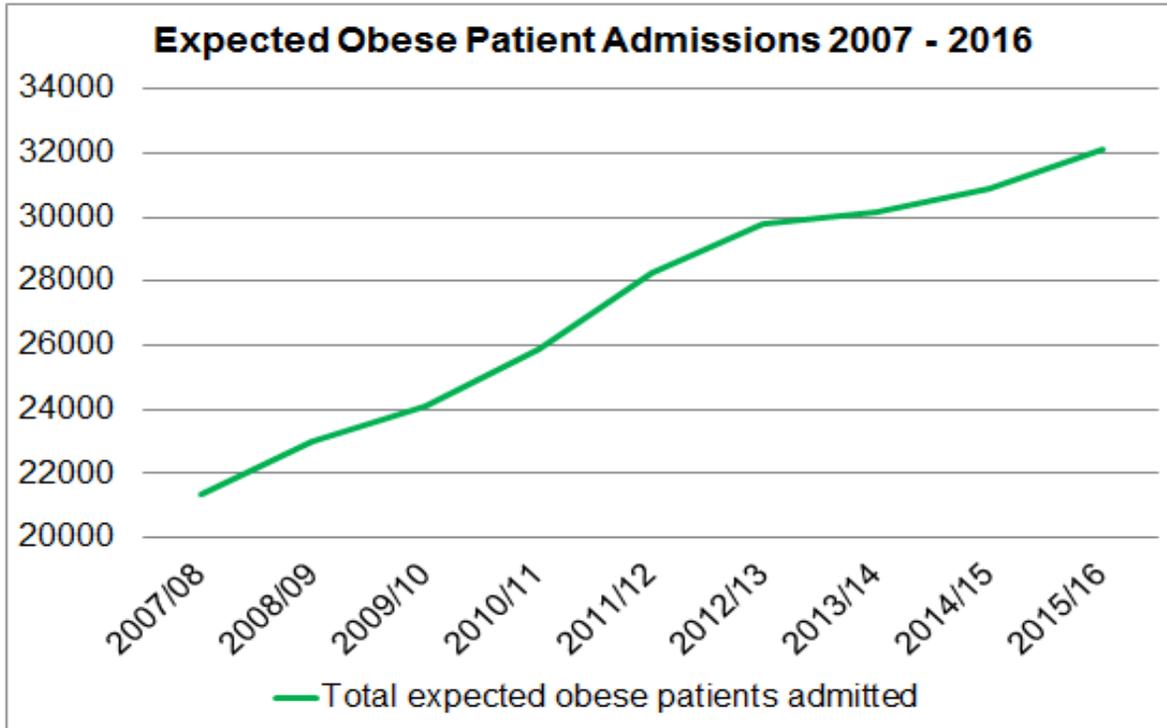
WA Country Health Service (WACHS)

Western Australian Regions



- WACHS is the largest country (rural) health system in Australia
- Provides health services across 2.53 million square kilometres for a combined estimated population of 2.69 million people.
- Research Project highly relevant - Obesity is more frequent in rural and remote areas compared to urban areas (ABS, 2008) = ↑ risk of patient handling injuries to WACHS staff than staff in WA metropolitan hospitals

Discrepancies between recorded obese patient admission data, obese patient modelling and anecdotal awareness



Why is data accuracy important??

1. Data is used in financial, managerial and clinical decision making
 - Includes the allocation of both human and equipment resources.
2. Inaccurate data leads to inability to recognise risks
3. Until the extent of obesity admissions is identifiable, obese patient handling risks cannot be managed effectively.

You can't effectively manage what you can't measure !!

Media Article – “Doctors aren't allowed to tell patients they're obese” : 19 Dec 2017

- NSW Health policy: Doctors are being told not to tell patients that they are “obese”.
- The guidelines instruct doctors to use “positive” language when discussing the weight of their patients.
- As well as talking in a “non-judgmental manner”, doctors are being told to scrap words like “skinny”, “malnourished” and “morbidly obese” and instead use terms like “well above a healthy weight”.
- Argument that term “Obese” can be offensive and stigmatising for overweight adults and children.

Response: Obesity Data capture will be significantly affected— reducing ability to manage Obese Manual Handling Risks to staff.

- “Obese” is a clinical term based on BMI scales developed by the World Health Organisation (WHO)
- Obese \geq 30 BMI
- Australian Medical Association president Dr Michael Gannon labelled the NSW guidelines “crazy”, and agreed that words like “fat” should be avoided, however “obese” is a medical term and doctors should be able to use it if it applies to a patient — even a child.
- Clinical coding of obesity is currently dependent on terminology of “obese” being used, and BMI.

Media Article – “St John Acts On Obese Patients”: 3 July 2018

- St John Ambulance record 57% increase of transporting severely obese patients in 2 years
- St John Ambulance have modified 8 vehicles to accommodate obese patients, including 2 specialist bariatric ambulances
- In FY2017/18 (12 months) St John Ambulance attended 980 Bariatric case.

PhD Research Project Aim:

“To determine if obese patient admission data provides sufficient accuracy to be used to implement obese patient handling risk mitigation strategies which will support workplace health and safety approaches for nurses and other healthcare staff. ”

PhD Research Project Objective:

To examine the utilisation and accuracy of obesity data and it's impact on the health and safety of nurses and other healthcare staff; and provide recommendations for improvement to obesity data collection practices if required.

Use of Health Data: Previous academic findings

- “Accurate coding and reporting of health diagnosis and conditions has become more crucial as healthcare data requirements have advanced” (Stanfill *et al*, 2010)
- “Patient admission databases are an important resource for hospital planning and utilisation” (Baldi *et al*, 2008)
- Obesity coding and manual chart reviews has been studied internationally – findings of low levels of accuracy.
- GAP - The accuracy of the clinical coding of obesity has been examined in several international studies however **has not been examined in Australia**.

RESEARCH METHODOLOGY

- Pilot study examining Obesity Data Accuracy was conducted in 2017 .
- Broader Obesity Data Accuracy study was completed in 2018.
- Ethics approval for this research project was obtained from the Edith Cowan University (ECU) and WACHS
- Ethics Waiver of Consent was be obtained due to the requirement to examine confidential patient files.
- Research involved 590 participants at 4 WACHS regional sites

Study Inclusion Criteria

Participants

590 patient files examined at 4 WACHS regional sites (Northam Hospital, Busselton Health Campus, Hedland Health Campus and Kalgoorlie Health Campus) and compared to corresponding coded data.

Patient criteria:

1. Over 18yrs and admitted for longer than 5 days
2. Had a principal or additional diagnosis of Type 2 diabetes
3. Discharged between 1 July 2015 and 30 June 17

Research Methodology (contd)

Why Type 2 diabetes ??

- Diabetes as a health condition has been selected as it is a confirmed co-morbidity of obesity
- 2015 research by Diabetes UK reports that the **obese population have a risk of diabetes 80 times higher** than that of the normal weighted population.
- Australian National Preventative Health Agency's 2014 finding that **high body weight and physical inactivity are responsible for approximately 60% of the burden for type 2 diabetes.**

Data Collection

- Patient data and file IDs were supplied with assistance from the WACHS Health Information Managers (HIMs).
- The HIMs ensured that the patient criteria met
- HIMs randomised the patient selection and File IDs where excessive participants were identified.
- Researcher undertook training on Patient File examination techniques to ensure sound data extraction methods were met.

Data Analysis

Five initial methods of quantitative analysis were also applied:

1. **Prevalence** coded as obese;
2. **Weight** recorded;
3. **Height** recorded;
4. **BMI** recorded; and
5. Height and weight recorded with **no BMI**.

Data Analysis

- SPSS used to determine 7 additional Reliability indicators:
 1. **Sensitivity:** if obesity recorded in patient files, percentage of obesity coding
 2. **Specificity:** if obesity NOT recorded in patient files, percentage of absence of obesity coding
 3. **Positive Predictive Value (PPV):** The percentage of obesity coding when obesity is recorded in patient files
 4. **Negative Predictive Value (NPV):** The percentage of negative coding of obesity when obesity is not noted in patient files

Data Analysis (contd)

5. **False Negative Value:** Coding displaying “normal weighted” despite obesity noted in patient files
6. **False Positive Value:** Coding displaying “obesity” despite not obesity notations in patient files
7. **Cohen's Kappa Values:** the agreement between the patient admission data and the patient file data.

Literature review: Common methodology when examining **clinical interventions and conducting comparisons.**

Results – Data Collection

	n	Prevalence coded as obese (n, %)	Weight Recorded	Height Recorded	BMI Recorded	Height and Weight Recorded, no BMI
All	590	64 (10.8%)	397 (67.3%)	142 (24.1%)	64 (10.8%)	88 (62.0%)
Male	297	31 (10.4%)	190 (64.0%)	63 (21.2%)	20 (6.7%)	44 (69.8%)
Female	293	33 (11.3%)	207 (70.6%)	79 (26.6%)	44 (15.0%)	44 (55.7%)
Busselton Health Campus	166	14 (8.4%)	94(56.6%)	21 (12.6%)	10 (6.0%)	12 (57.1%)
Hedland Health Campus	100	3 (3.0%)	70 (70.0%)	9 (9.0%)	7 (7.0%)	8 (88.8%)
Northam Health Campus	158	16 (10.1%)	100 (63.3%)	33 (20.1%)	19 (12.0%)	14 (42.4%)
Kalgoorlie Health Campus	166	31 (18.67%)	133 (80.1%)	79 (47.6%)	28 (16.9%)	54 (68.3%)

Despite approx
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KEY FINDING 1 :
Low weight, height and BMI measurements were recorded in patient files (67%, 24% and 10% respectively).

Despite approx 30% of population being obese!

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Results – Data Accuracy

	Sensitivity	Specificity	NPV	PPV	False Positive	False Negative	Kappa
All	40.0%	96.2%	86.9%	71.8%	3.8%	60.0%	0.44
Male	42.6%	95.6%	89.9%	64.5%	4.4%	57.4%	0.44
Female	38.2%	96.9%	83.9%	78.8%	3.1%	61.8%	0.43
Busselton Health Campus	48.1%	99.3%	90.8%	92.9%	0.7%	51.9%	0.59
Hedland Health Campus	8.3%	97.7%	88.6%	33.3%	2.3%	91.7%	0.09
Northam Health Campus	35.3%	96.8%	84.5%	75.0%	3.2%	64.7%	0.40
Kalgoorlie Health Campus	47.6%	91.1%	83.7%	64.5%	8.9%	52.4%	0.42

Results – Data Accuracy

	Sensitivity	Specificity	NPV	PPV	False Positive	False Negative	Kappa
All	40.0%	96.2%	86.9%	71.8%	3.8%	60.0%	0.44
Male	42.6%	95.6%	89.9%	64.5%	4.4%	57.4%	0.44
Female	38.2%	96.9%	83.9%	78.8%	3.1%	61.8%	0.43
Busselton Health Campus	48.1%	99.3%	90.8%	92.9%	0.7%	51.9%	0.59
Hedland Health Campus	8.3%	97.7%	88.6%	33.3%	2.3%	91.7%	0.09
Northam Health Campus	35.3%	96.8%	84.5%	75.0%	3.2%	64.7%	0.40
Kalgoorlie Health Campus	47.6%	91.1%	83.7%	64.5%	8.9%	52.4%	0.42

KEY FINDING 2 :

Current obesity data is inaccurate, particularly in areas of low sensitivity (recorded in files but not data) and high false negatives (coded as normal weighted despite file notations of obesity)

Significance of Findings

- Obese coding data accuracy determined for first time in Australian Health setting
- Highlights need for accurate obesity data to WACHS and other Health Services to manage patient handling risks to staff
 - Weight, Height and BMI measures can also be used for increased clinical risks such as malnutrition tracking etc.

Where to from here?

- PhD research project completion 2018 - 2022
- 3 additional studies to complete PhD with publication:
 1. Examination of obese coded health conditions and ABF:
How does coding inaccuracies affect hospital funding?
 2. Examination of changes in **obese patient coding** and **AR-DRG software** version changes and the **impact on hospital funding.**

Where to from here?

3. Intervention to measure & record improved methods of obesity coding such as:

- Education sessions to staff to emphasise the importance of accurate obesity data recording
- Improved Height, weight and BMI recording locations within medical charts
- BMI charts in EDs, Wards and Coding offices to allow easy identification of obesity
- Enhancements to clinical coding instructions to allow the determination of obesity by coding staff by calculating BMI if recorded height and weight measurements are available
- Additional interventions that may be informed from the research findings

Questions?

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