

Global survey study of awareness, care and treatment of adolescents living with obesity, their caregivers and healthcare professionals: ACTION Teens

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<https://sciencehub.novonordisk.com/espe2021/Halford.html>



ACTION Teens is the largest study of adolescents living with obesity and is unique in surveying three groups of stakeholders



Background

- Obesity that is present in adolescence is likely to persist into adulthood,¹ and has a more severe lifelong impact than adult-onset obesity.^{2,3}
- Early intervention is indicated in children and adolescents living with obesity (ALWO), as it predicts better long-term reduction in body mass index (BMI).⁴
 - Even modest BMI reductions are associated with improvement in cardiometabolic risk.⁵
- ACTION Teens aims to improve obesity management and treatment for ALWO by:
 - Generating evidence to drive awareness of the needs of ALWO and caregivers
 - Identifying areas of misalignment among ALWO, caregivers and healthcare providers (HCPs).

Methods

- ACTION Teens is a landmark cross-sectional, quantitative survey-based study.
- Primary outcome: describe awareness, perceptions and behaviours related to obesity and its management among ALWO, their caregivers and HCPs.
- Survey materials were designed under the guidance of an international steering committee (SC) consisting of HCPs and subject matter experts. Separate but overlapping surveys were developed for each sample group.
- Question domains are shown in Figure 1.

Figure 1: Survey domains



Participants

- In each participating country (Figure 2), ALWO caregivers were recruited from a general population sample (stratified to match local demographic targets for adults); permission was sought for the relevant ALWO to be involved. HCPs were recruited from online physician panels. Key inclusion criteria are shown in Table 1.

Data collection

- Cross-sectional data were obtained from online surveys, although in-person administration was permitted in Saudi Arabia, Taiwan and Turkey.

Table 1: Key inclusion criteria

ALWO	Caregivers of ALWO	HCPs
<ul style="list-style-type: none"> Aged ≥12 to <18 years Obesity according to BMI ≥95th percentile for age and sex, per locally appropriate definitions 	<ul style="list-style-type: none"> Parent or legal guardian of an ALWO who lives in the same household ≥50% of the time Involved in the ALWO's healthcare decisions 	<ul style="list-style-type: none"> Primary care physicians, paediatricians or specialists who see ≥10 ALWO in a typical month Spend ≥50% of time in direct patient care

Figure 2: Anticipated number of respondents



Data analysis

- Sample sizes were selected to reflect local ALWO populations and to balance recruitment feasibility and statistical power, with the intention of performing local sub-analyses.
- All respondents who completed the survey will be included in the full analysis set.
- Statistical analyses will include:
 - Descriptive statistics for all outcome measures across the total population for each country and for data subsets (e.g. group age, sex and region)
 - Classical tests of hypotheses to identify differences in responses between data subsets
 - Linear regression and Pearson correlation coefficients to model relationships between outcomes of interest for key data subsets (e.g. ALWO age and sex).
- Caregivers of ALWO data will be weighted on key local demographic targets (based on government or peer-reviewed data) to reflect local adult populations.
- It would not have been possible to directly assess the impact of pubertal stage on outcomes without including potentially culturally inappropriate questions. Thus, a proxy of age subgroups was considered appropriate by the SC.

Strengths of study design

- Analysis of three key stakeholders – ALWO, their caregivers and HCPs – across 10 countries
- Use of locally appropriate age-specific definitions of obesity
- Stratified sampling and demographic weighting of ALWO caregivers to mitigate selection bias and for generalisability
- 'Matched pairs' of ALWO and caregivers were maximised by seeking permission for the relevant ALWO to be involved

Data dissemination

- Results will be reported in 2022, with overall data published before local data.
- If variables of interest are identified, additional sub-analyses may be considered (under SC guidance).

Conclusions

- ACTION Teens, a landmark study and the largest of its kind, will provide critical global insights to improve awareness of management, treatment and support for ALWO.
- Insights will be used to guide collaborative action to improve care, education and support for ALWO and their caregivers, and create a communication platform to help change how ALWO, caregivers and HCPs manage, treat and support obesity.
- Due to the cross-sectional design, it will not be possible to determine causal relationships, but data may help to generate hypotheses for future studies.

References:

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