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State of Israel
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COST-UTILITY ANALYSES OF INTERVENTIONS TO PREVENT AND TREAT OBESITY IN ISRAEL

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EXECUTIVE SUMMARY

Obesity is a serious risk factor for many chronic diseases. It is also quite an expensive one, generating direct health service costs of approximately NIS 1.14 billion, which is equivalent to 0.16% of Israel's Gross Domestic Product – or 2% of the country's health expenditure.

The objective of the study was to assist Israeli policymakers in their efforts to prioritize interventions to prevent and treat obesity in Israel by calculating cost-effectiveness ratios of relevant interventional modalities.

Cost-utility ratios of three interventional modalities for the prevention and treatment of obesity – dietary counseling, pharmaceutical interventions and bariatric surgery – were calculated by building a model using primary Israeli data for dietary counseling interventions, as well as by adapting data from the published literature to epidemiological and economic parameters characterizing Israel for all three interventional modalities. Public health interventions such as those delivered at schools, worksites and other community settings were not covered as the literature does not provide sufficient information to calculate generalizable cost-utility analyses.

Generally, the ratios were found to be very favorable: the majority were either cost-saving or very cost-effective. Cost-saving interventions are those that actually reduce costs overall, as the treatment costs averted by the decrease in morbidity exceed the cost of the intervention. Very cost-effective interventions are those that achieve an increase in quality-adjusted life years (QALYs) at a relatively low cost (the cost per QALY is less than the per capita GNP, in keeping with the accepted WHO criteria).

Dietary counseling was either cost-saving or very cost-effective, while pharmaceutical interventions were either very cost-effective or cost-effective. The various surgical interventions ranged from being cost-saving to cost-effective, contingent upon the specific technique and the study. Generally speaking, these three modalities incrementally address populations that are increasingly more obese or difficult to treat. As such, they essentially do not compete with one another. Differences in cost-effectiveness exist within each treatment modality, but the data are not robust enough to facilitate within-modality prioritization at this point.

This report confirms the cost-effectiveness of several interventions already funded to some degree within the basket of health services but also suggests the appropriateness of funding heretofore unfunded interventions. While funding exists for dietary counseling for the obese or the severely overweight with additional risk factors and for surgical interventions for those with Class III obesity or with Class II obesity and additional risk factors, pharmaceutical interventions such as sibutramine and orlistat are not currently funded. They have been shown to be very cost-effective in this report, hence they too should be considered for funding, contingent upon a review of their effectiveness/safety profile.

TABLE OF CONTENTS

1. Introduction.....	1
2. Key Epidemiologic Data Concerning Obesity.....	1
3. Objectives	4
4. Methods.....	4
5. Types of Interventions.....	9
5.1 Dietary Interventions.....	9
5.2 Pharmaceutical Interventions.....	11
5.3 Surgical Interventions	11
6. Coverage and Compliancy	12
7. Results.....	12
7.1 Dietary Interventions.....	12
7.2 Pharmaceutical Interventions	15
7.3 Surgical Interventions	18
8. Discussion	23
8.1 Dietary Interventions.....	23
8.2 Pharmaceutical Interventions	24
8.3. Surgical Interventions	25
9. Conclusion.....	26
Bibliography.....	27

APPENDICES

Appendix I: Cost per QALY of a Modeled Dietary Counseling Intervention in Israel by 10-Year AMI Risk.....	36
Appendix II: Dietary and Pharmaceutical Interventions for Obese and Overweight Diabetic Patients	38
Appendix III: Surgical Interventions for Obese Diabetic Patients.....	40
Appendix IV: Glossary of Abbreviations.....	41

LIST OF TABLES

2. Key Epidemiological Data Concerning Obesity

Table 1: Relative Risks (RR) and Population Attributable Fractions (PAF) of Obesity for Intermediate Risk Factors and Chronic Diseases in Israel	2
--	---

Table 2: Estimated Direct Health Costs of Obesity in Selected Co-Morbidities (2008)..	3
---	---

4. Methods

Table 3: QALY Weights by BMI Level.....	6
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5. Types of Interventions

Table 4: Effect of Dietary Counseling on LDL-C Levels.....	10
--	----

7. Results

Table 5: ACERs and ICERs for Surgical Interventions for Morbid Obesity.....	20
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Table 6: Summary of Cost-Utility Ratios Ranked by NIS per QALY (2008 Cost Levels)	21
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