Appendix 1

Example of calculation of the expected prevalence of Metabolic Syndrome by ATP III criteria:

Let 1 to 5 denote the 5 components of the Metabolic Syndrome by ATP III criteria.
Pn= overall prevalence of component n.
Therefore, (1-Pn)= Prevalence of subjects without component n.

Therefore, the expected prevalence of subjects who have all 5 Metabolic Syndrome components is: P1.P2.P3.P4.P5

The expected prevalence of subjects who have four Metabolic Syndrome components is obtained by adding the individual prevalence for each of the five ways in which it is possible to combine four of the five MS components, i.e.:
P1.P2.P3.P4.(1-P5) + P1.P2.P3.(1-P4).P5 + P1.P2.(1-P3).P4.P5 + P1.(1-P2).P3.P4.P5 + (1-P1).P2.P3.P4.P5

There are ten possible combinations of three of the five MS components, and therefore the expected prevalence of subjects with three Metabolic Syndrome components is:
P1.P2.P3.(1-P4).(1-P5) + P1.P2.(1-P3).(1-P4).P5 + P1.(1-P2).(1-P3).P4.P5 + (1-P1).(1-P2).P3.P4.P5 + P1.P2.(1-P3).P4.(1-P5) + P1.(1-P2).P3.P4.(1-P5) + (1-P1).P2.P3.P4.(1-P5) + P1.(1-P2).P3.(1-P4).P5 + (1-P1).P2.P3.(1-P4).P5 + (1-P1).P2.(1-P3).P4.P5

The expected prevalence of metabolic syndrome will be the sum of the prevalence obtained for all possible 3, 4 and 5 component combinations.