

Table 1. Number of disorders screened in state newborn screening programs

State¹	Disorders screened - mandatory	Disorders screened – optional²
Alabama	22	2
Alaska	44	5
Arizona	29	5
Arkansas	10	1
California	47	3
Colorado	50	0
Connecticut	44	3
District of Columbia	49	6
Delaware	41	6
Florida	39	1
Georgia	16	3
Hawaii	44	5
Idaho	44	5
Illinois	47	1
Indiana	50	1
Iowa	52	1
Kansas	8	1
Kentucky	30	2
Louisiana	9	6
Maine	35	13
Maryland	45	3
Massachusetts	17	33
Michigan	15	31
Minnesota	53	1
Mississippi	51	6
Missouri	36	0
Montana	8	40
Nebraska	15	32
Nevada	43	6
New Hampshire	16	3
New Jersey	28	17
New Mexico	30	1
New York	51	0
North Carolina	34	1
North Dakota	44	2
Ohio	38	1
Oklahoma	11	1
Oregon	33	16
Pennsylvania	16	41
Rhode Island	16	2
South Carolina	44	2
South Dakota	48	2
Tennessee	48	1
Texas	8	2
Utah	44	0
Vermont	31	14

Table 1. cont.

State¹	Disorders screened - mandatory	Disorders screened – optional²
Virginia	30	1
Washington	13	2
West Virginia	10	1
Wisconsin	48	1
Wyoming	12	0

Source: National Newborn Screening and Genetics Resource Center (updated 4-3-06). Available at: <http://genes-r-us.uthscsa.edu/nbsdisorders.pdf>.

¹ Refers to the 50 states and the District of Columbia.

² Refers to tests offered but not required, offered to select populations or upon request, and those likely to be detected as a by-product of other required tests.

Table 2. Disorders recommended for newborn screening Core Panel

Disorder	Incidence ¹	States ² with mandatory screening	States with optional ³ screening
Miscellaneous Disorders			
Congenital hypothyroidism (CH)	>1:5,000	51	
Galactosemia (GALT)	>1:50,000	51	
Congenital adrenal hyperplasia (CAH)	>1:25,000	45	1
Biotinidase (BIO)	>1:75,000	40	2
Hearing deficiency	>1:5,000	28	23
Cystic fibrosis (CF)	>1:5,000	22	5
Amino Acid Disorders			
Phenylketonuria (PKU)**	>1:25,000	51	
Maple syrup urine disease (MSUD)*	<1:100,000	42	3
Homocystinuria (HCY)*	<1:100,000	40	5
Citrullinemia Type I (CIT I)*	<1:100,000	36	5
Argininosuccinate acidemia (ASA)*	<1:100,000	35	5
Tyrosinemia type I (TYR-1)*	<1:100,000	31	6
Fatty Acid Oxidation Disorders			
Medium-chain acyl-CoA dehydrogenase (MCAD)*	>1:25,000	43	3
Very long-chain acyl-CoA dehydrogenase (VLCAD)*	>1:75,000	34	5
Long-chain hydroxyacyl-CoA dehydrogenase (LCHAD)*	>1:75,000	33	6
Trifunctional protein (TFP)*	<1:100,000	30	10
Carnitine uptake defect (CUD)*	<1:100,000	23	8
Organic Acid Disorders			
Propionic acidemia (PROP)*	>1:75,000	35	5
Isovaleric acidemia (IVA)*	<1:100,000	34	5
Methylmalonic acidemia (MM-CoA mutase; MUT)*	<1:75,000	34	5
Methylmalonic acidemia (vitamin B12 disorders; CBL A,B)*	<1:100,000	34	6
Glutaric acidemia type I (GA-1)*	>1:75,000	34	5
3-Hydroxy-3-methylglutaric CoA aciduria (HMG)*	<1:100,000	34	5
3-Methylcrotonyl-CoA carboxylase (3-MCC)*	>1:75,000	34	5
Beta ketothiolase (BKT)*	<1:100,000	31	7
Multiple carboxylase (MCD)*	<1:100,000	28	8
Hemoglobinopathies			
Sickle cell disease (Hb S/S)	>1:5,000	51	
Sickle – C disease (Hb S/C)	>1:25,000	51	
S- eta thalassemia (Hb S/A)	>1:5,000	51	

Source: National Newborn Screening and Genetics Resource Center (updated 4-3-06). Available at: <http://genes-r-us.uthscsa.edu/nbsdisorders.pdf>.

¹ Data obtained from the Health Resources and Services Administration report (prepared by the American College of Medical Genetics): *Newborn Screening: Toward a Uniform Screening Panel and System*.

Available at: <http://mchb.hrsa.gov/screening>.

² Refers to 50 states and the District of Columbia.

³ Refers to tests offered but not required, offered to select populations or upon request, and those likely to be detected as a by-product of other required tests.

* Screening method: tandem mass spectrometry

** Screening method: tandem mass spectrometry or other techniques

TABLE 3. Disorders included in Secondary Target Panel

Disorder	Incidence ¹	States ² with mandatory screening	States with optional screening
Miscellaneous Disorders			
Galactokinase (GALK)	>1:25,000	18	5
Galactose epimerase (GALE)	<1:100,000	18	5
Other variant hemoglobinopathies	>1:50,000	21	30
Amino Acid Disorders			
Benign hyperphenylalaninemia (H-PHE)**	>1:25,000	51	
Citrullinemia type II (CIT-II)*	<1:100,000	30	5
Tyrosinemia type II (TYR-II)*	<1:100,000	26	7
Hypermethioninemia (MET)*	<1:100,000	26	8
Argininemia (ARG)*	<1:100,000	22	6
Tyrosinemia type III (TYR-III)*	<1:100,000	16	9
Defects of bioppterin cofactor biosynthesis (BIOPT-BS)*	<1:100,000	7	13
Defects of bioppterin cofactor regeneration (BIOPT-REG)*	<1:100,000	7	13
Fatty Acid Oxidation Disorders			
Short-chain acyl-CoA dehydrogenase (SCAD)*	>1:75,000	30	5
Glutaric acidemia type II (GA-II)*	<1:100,000	28	7
Medium/short-chain L-3-hydroxy acyl-CoA dehydrogenase (M/SCHAD)*	<1:100,000	11	4
Medium chain ketoacyl-CoA thiolase (MCKAT)*	<1:100,000	8	5
Carnitine palmitoyltransferase II (CPT-II)*	<1:100,000	27	7
Carnitine/acylcarnitine translocase (CACT)*	<1:100,000	26	8
Carnitine palmitoyltransferase I (CPT-Ia)**	<1:100,000	21	7
Dienoyl-CoA reductase (De-Red)*	<1:100,000	8	4
Organic Acid Disorders			
Methylmalonic acidemia (CBL-C,D)*	<1:100,000	31	5
2-Methylbutyryl-CoA dehydrogenase (2MBG)*	<1:100,000	23	9
Isobutyryl-CoA dehydrogenase (IBG)*	<1:100,000	23	8
3-Methylglutaconic aciduria (3MGA)*	<1:100,000	20	8
Malonic acidemia (MAL)*	<1:100,000	18	6
2-Methyl 3-hydroxy butyric aciduria (2M3HBA)*	<1:100,000	13	5

Source: National Newborn Screening and Genetics Resource Center (updated 4-3-06). Available at: <http://genes-r-us.uthscsa.edu/nbsdisorders.pdf>.

¹ Data obtained from the Health Resources and Services Administration report (prepared by the American College of Medical Genetics): *Newborn Screening: Toward a Uniform Screening Panel and System*.

Available at: <http://mchb.hrsa.gov/screening>.

² Refers to 50 states and the District of Columbia.

³ Refers to tests offered but not required, offered to select populations or on request, and those likely to be detected as a by-product of other required tests.

* Screening method: tandem mass spectrometry

** Screening method: tandem mass spectrometry or other techniques