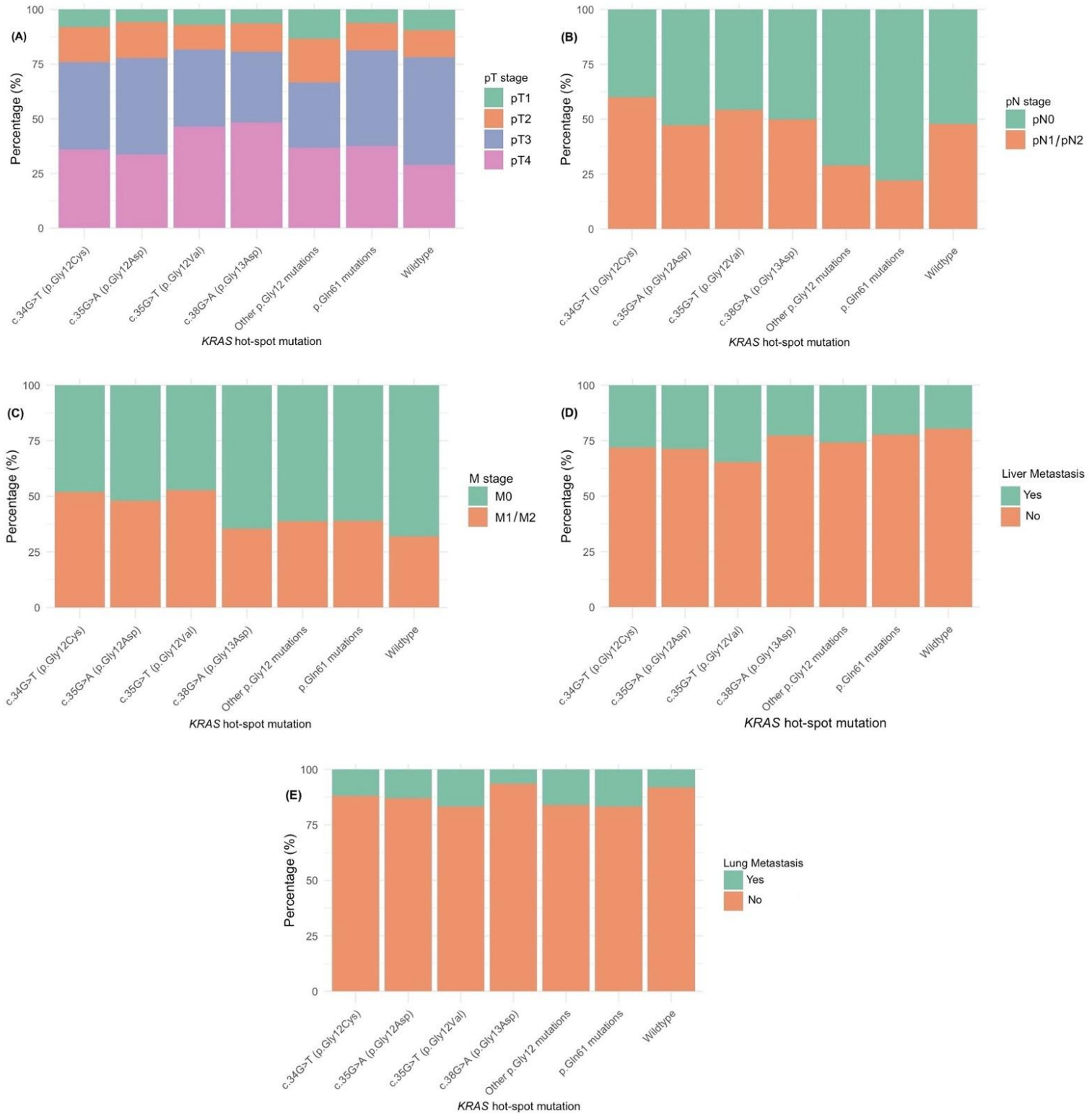
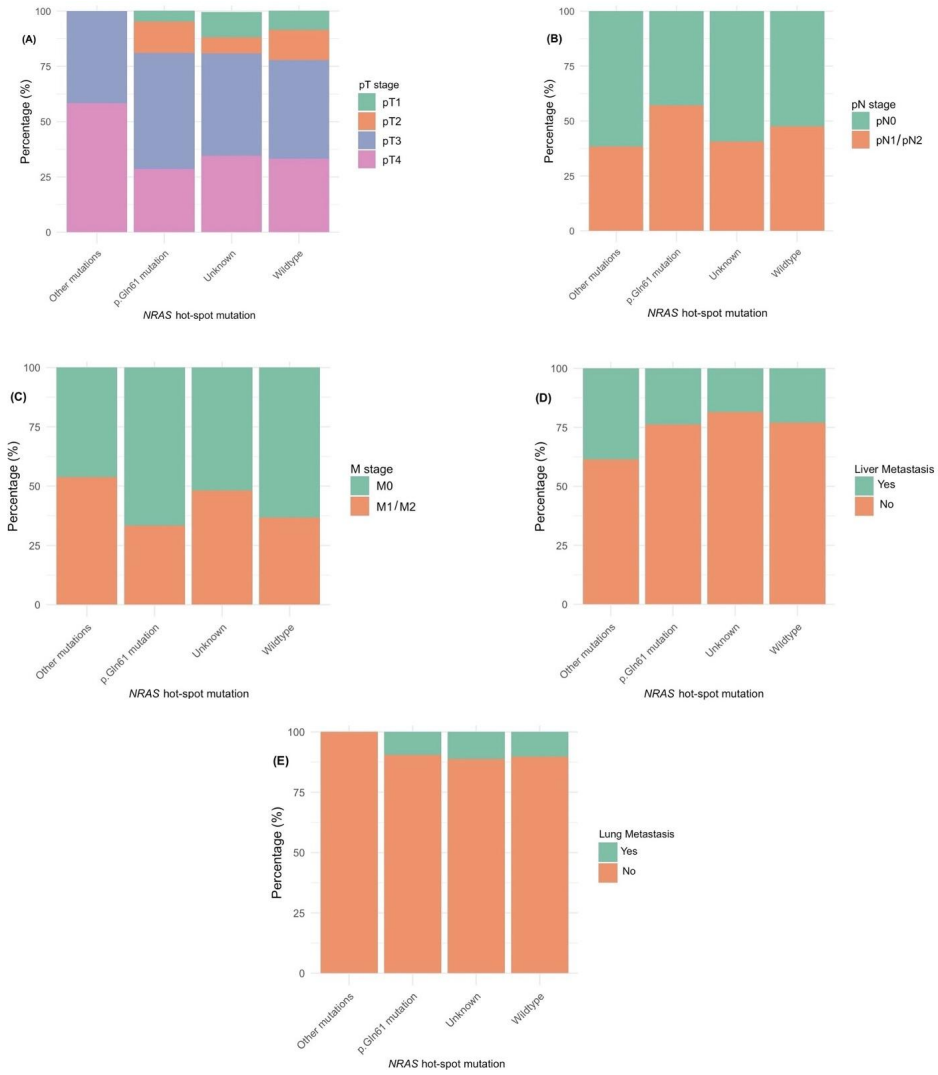
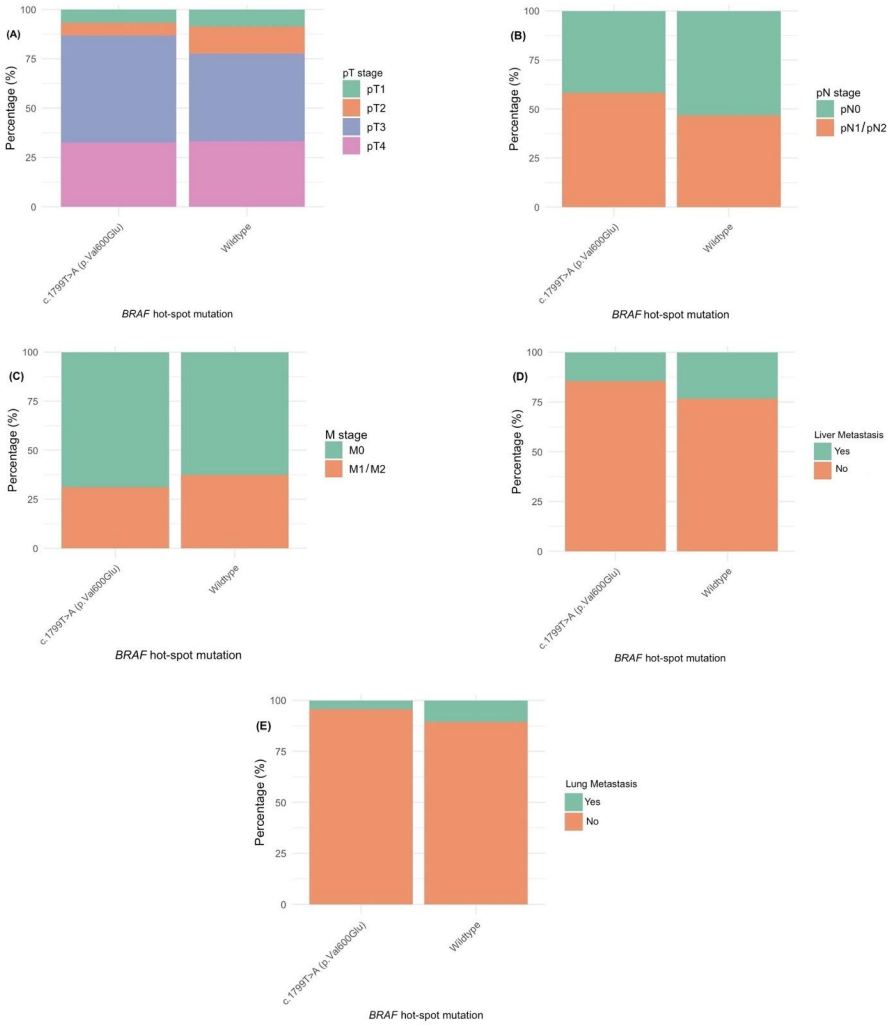


Supplementary Figure 1 Overall distribution of *KRAS* hot-spot mutations according to (A) colorectal cancer pathological (pT) stage, (B) regional lymph node metastasis (pN), (C) distant organ metastasis, (D) liver metastasis, and (E) lung metastasis (n = 799).



Supplementary Figure 2 Overall distribution of *NRAS* hot-spot mutations according to (A) colorectal cancer pathological (pT) stage, (B) regional lymph node metastasis (pN), (C) distant organ metastasis, (D) liver metastasis, and (E) lung metastasis (n = 799).



Supplementary Figure 3 Overall distribution of *BRAF* hot-spot mutations according to (A) colorectal cancer pathological (pT) stage, (B) regional lymph node metastasis (pN), (C) distant organ metastasis, (D) liver metastasis, and (E) lung metastasis (*n* = 799).

Supplementary Table 1 Pyrosequencing and primers information

Gene	Reference Gene	Exon	Codon	Primer	kit	Catalog number	Analyzed Sequences	Pyro. Dispensing Orders	Amplicon Size
KRAS	NM_004985.5	1	12/13	Forward	QIAGEN KRAS Pyro Kit (24)	970460	GNTGRCGTAGGC NGTGRCGTAGGC	TACGACTCAGATCGTAG	122 bp
	NM_004985.5	2	61/146	Reverse	QIAGEN KRAS Pyro Kit (24)	970460	CTCDTGACCTG CTCTHGACCTG CTCTTSACCTG	GCTCAGTCAGACT	125 bp
NRAS	NM_002524.5	2	12/13	Forward	QIAGEN NRAS Pyro Kit (24)	970530	GNTGNTGTTGGGAAAAGC NGTNGTGTTGGGAAAAGC	TACGACTCAGCATCGTAGAG	106 bp
	NM_002524.5	3	61	Forward	QIAGEN NRAS Pyro Kit (24)	970530	CNAGAAGAGTA VAAGAAGAGTA CANGAAGAGTA	TCGTATCGAGAG	114 bp
BRAF	NM_004333.6	15	600	Reverse	QIAGEN BRAF Pyro Kit (24)	970470	CWCTGTAGC	TCGTATCTGTAG	115 bp

Supplementary Table 2 Genomic locations and details for *KRAS*, *NRAS*, and *BRAF* hot-spot mutations.

Gene	Mutation	Reference Position (GRCh38)	Chromosome
KRAS	p.Gly12Asp (G12D)	12:25245350..25245350	12
KRAS	p.Gly12Val (G12V)	12:25245350..25245350	12
KRAS	p.Gly12Cys (G12C)	12:25245351..25245351	12
KRAS	p.Gly12Ser (G12S)	12:25245351..25245351	12
KRAS	p.Gly12Ala (G12A)	12:25245350..25245350	12
KRAS	p.Gly12Arg (G12R)	12:25245351..25245351	12
KRAS	p.Gly13Asp (G13D)	12:25245347..25245347	12
KRAS	p.Gln61His (Q61H)	12:25227341..25227341	12
KRAS	p.Gln61Leu (Q61L)	12:25227342..25227342	12
KRAS	p.Gln61Arg (Q61R)	12:25227342..25227342	12
KRAS	p.Gln61Glu (Q61E)	12:25227343..25227343	12
NRAS	p.Gly12Asp (G12D)	1:114716126..114716126	1
NRAS	p.Gly12Val (G12V)	1:114716126..114716126	1
NRAS	p.Gly12Cys (G12C)	1:114716127..114716127	1
NRAS	p.Gly12Ser (G12S)	1:114716127..114716127	1
NRAS	p.Gly13Val (G13V)	1:114716123..114716123	1
NRAS	p.Gln61Lys (Q61K)	1:114713909..114713909	1
NRAS	p.Gln61Arg (Q61R)	1:114713908..114713908	1
NRAS	p.Gln61His (Q61H)	1:114713907..114713907	1
NRAS	p.Gln61Leu (Q61L)	1:114713908..114713908	1
BRAF	p.Val600Glu (V600E)	7:140753336..140753336	7