Correlations between baseline and repeat assessment (phase 1 and 2)
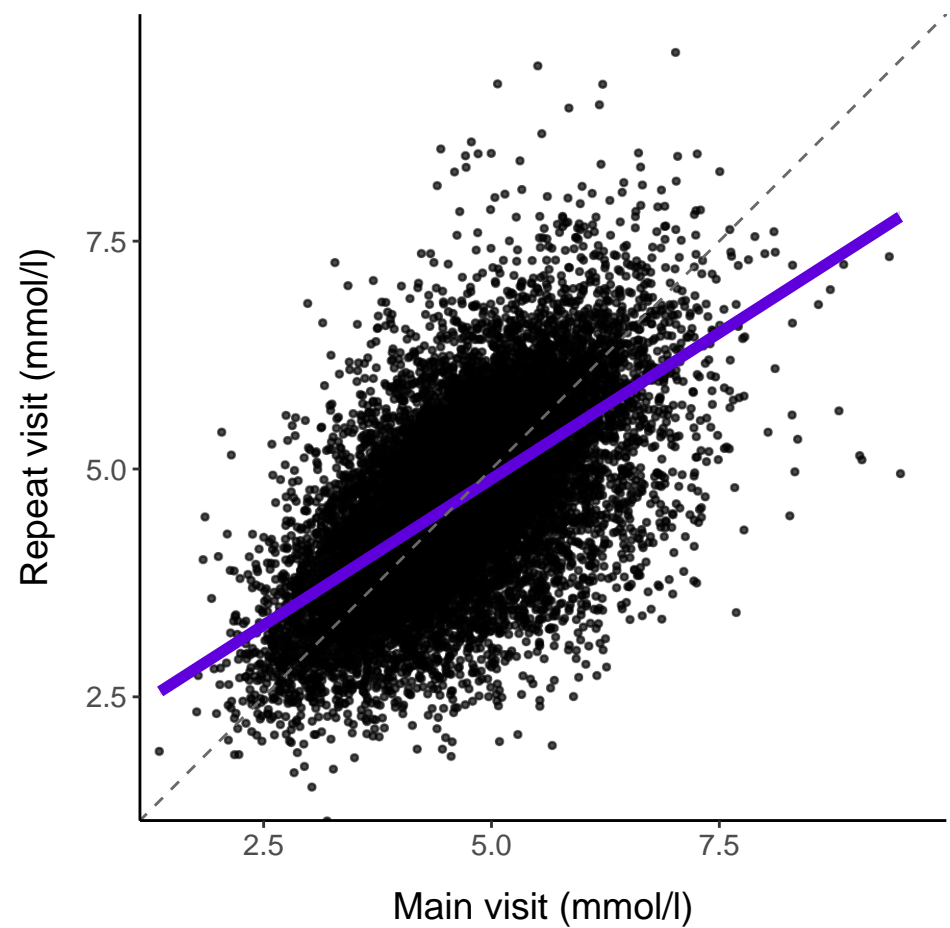
Outliers 4 × IQR from median removed
Nightingale Health Plc.

Cholesterol
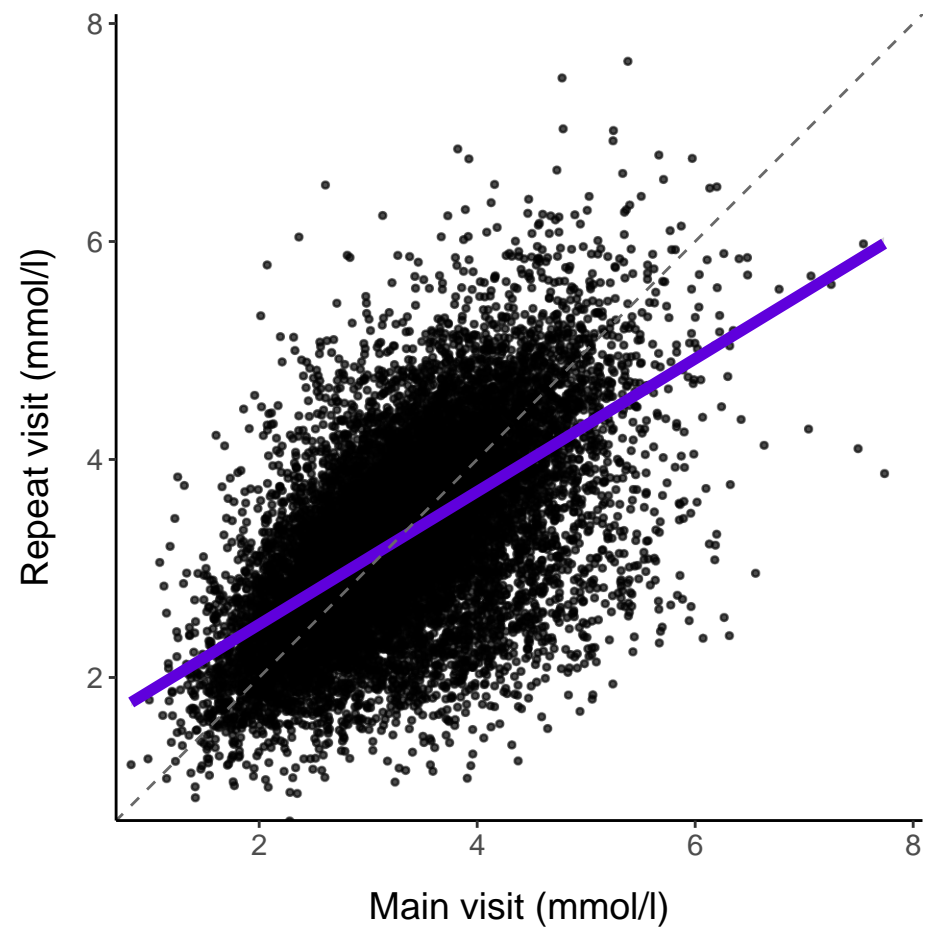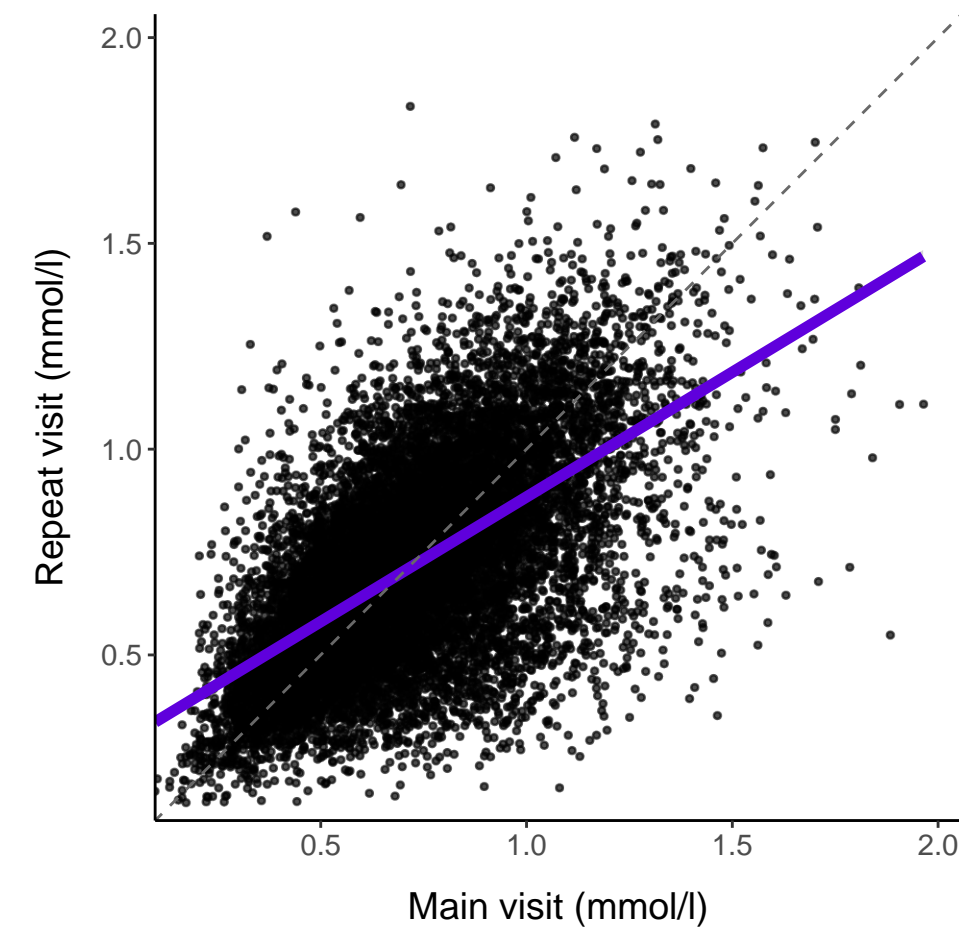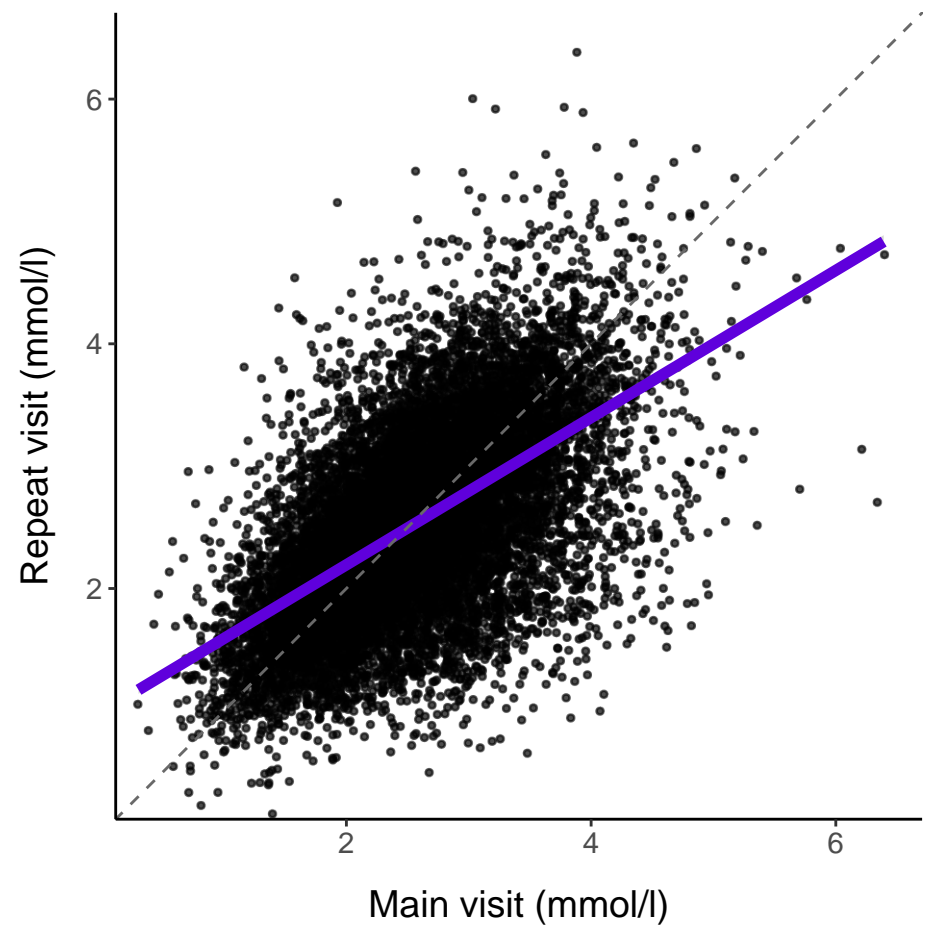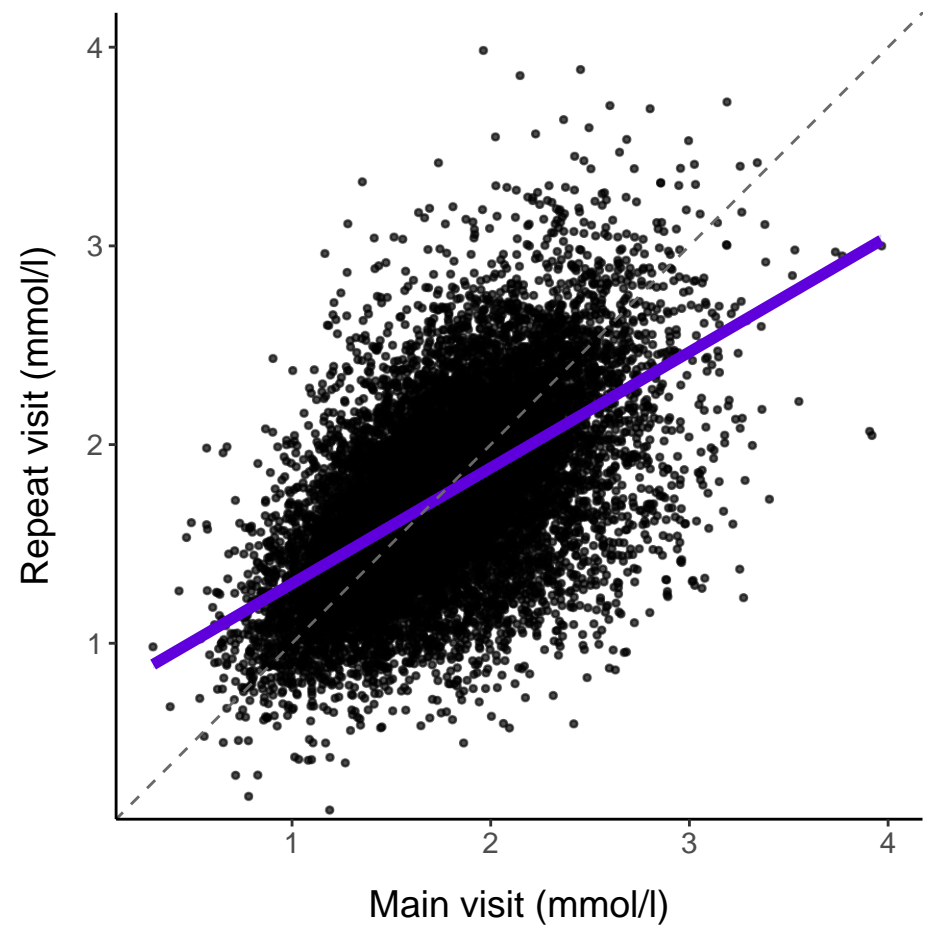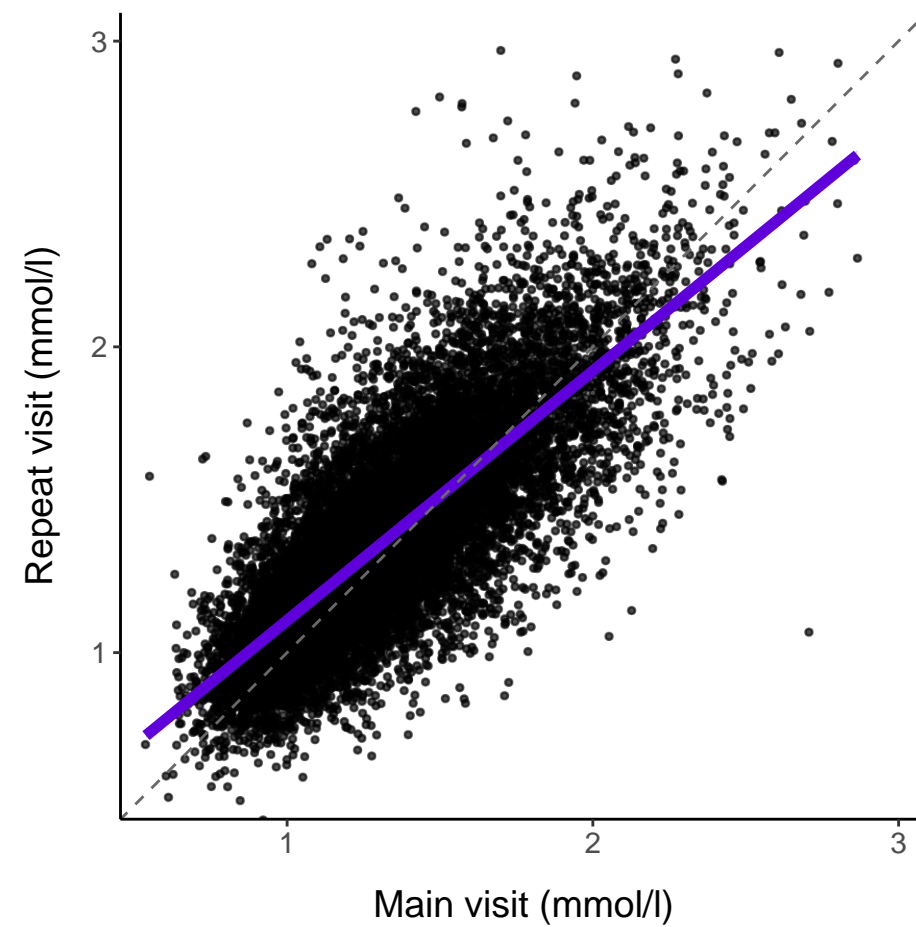
Triglycerides

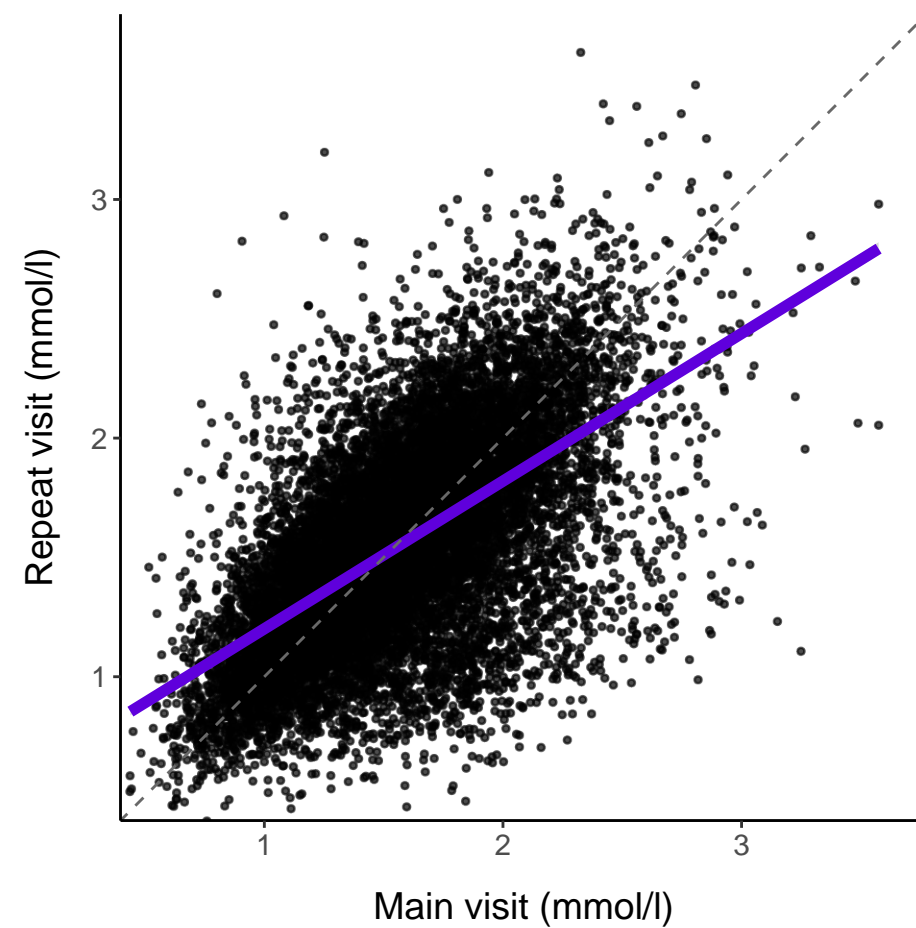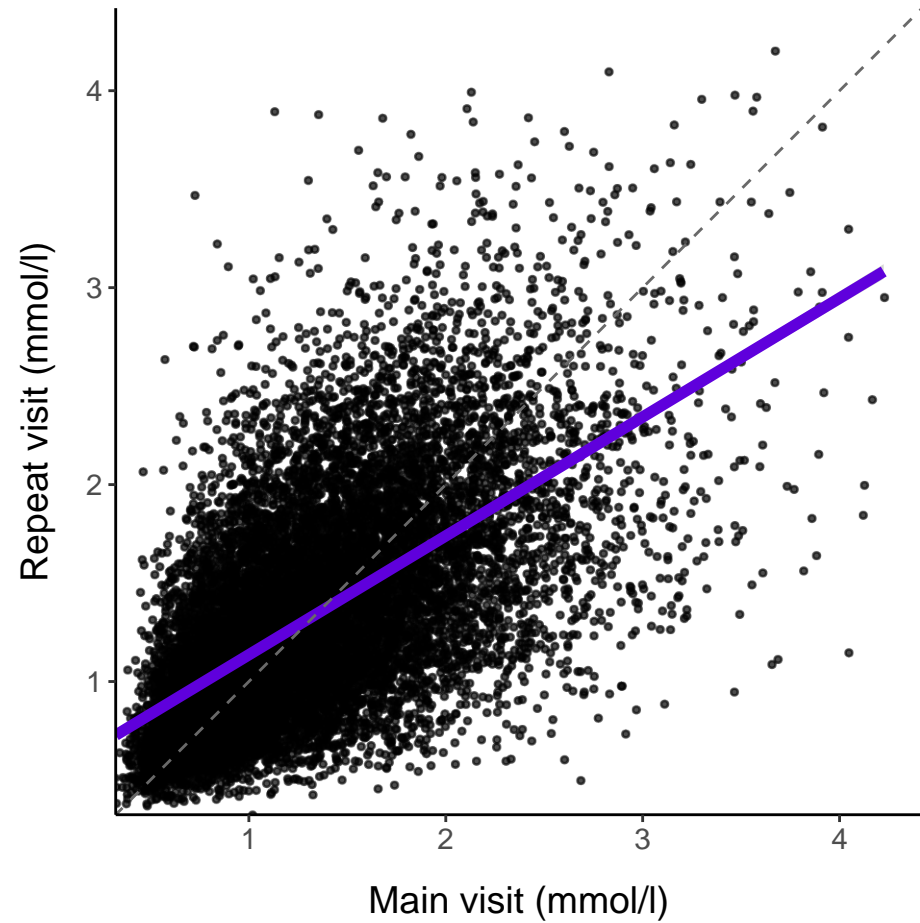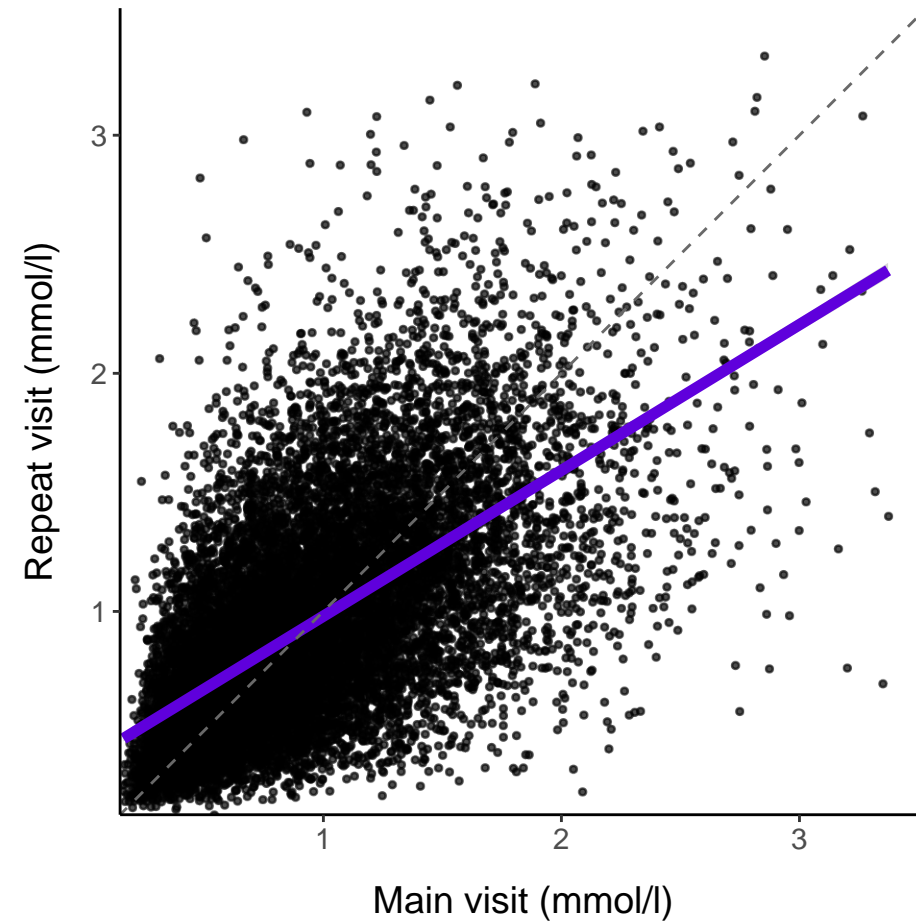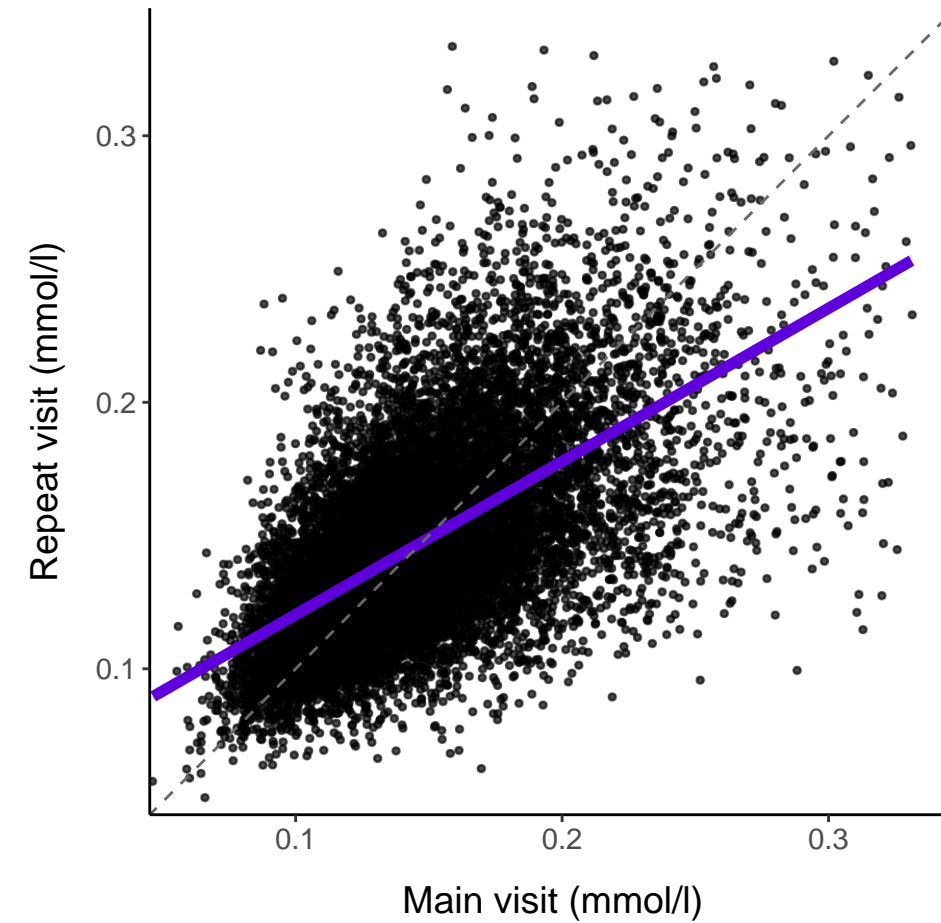| Total_TG	VLDL_TG	LDL_TG	HDL_TG
R: 0.62	R: 0.62	R: 0.61	R: 0.54
y = 0.53 + 0.60x	y = 0.37 + 0.61x	y = 0.06 + 0.57x	y = 0.07 + 0.52x
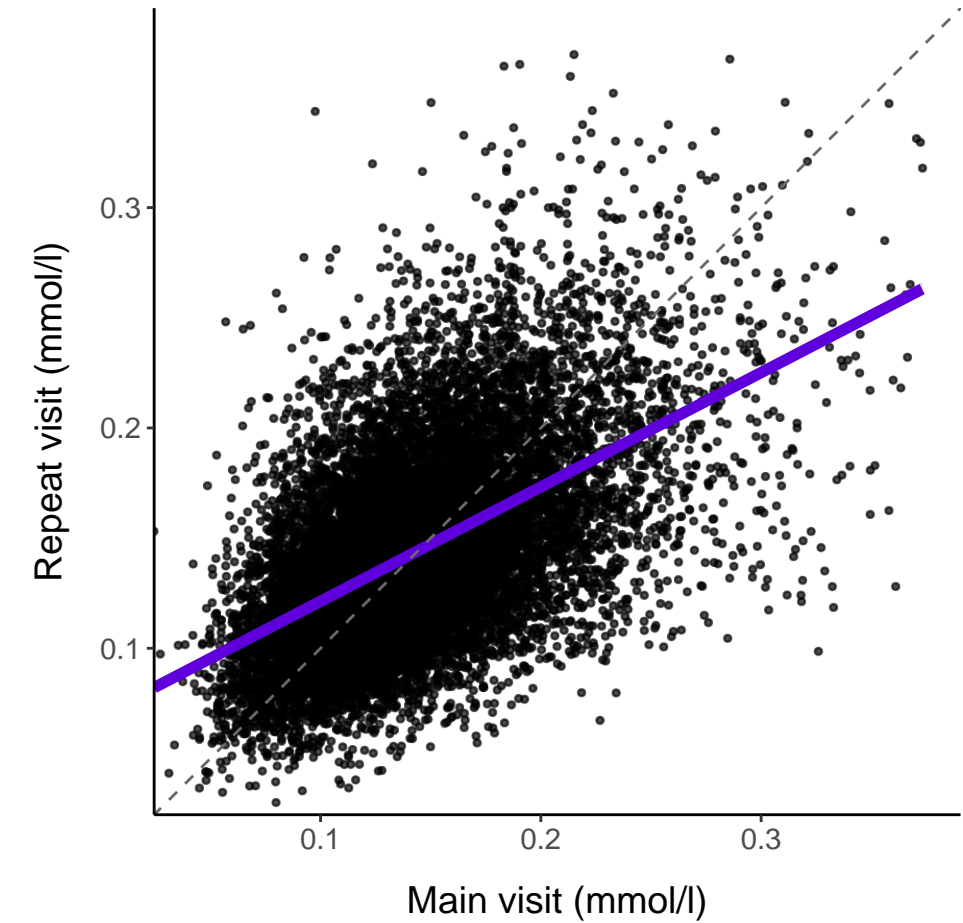
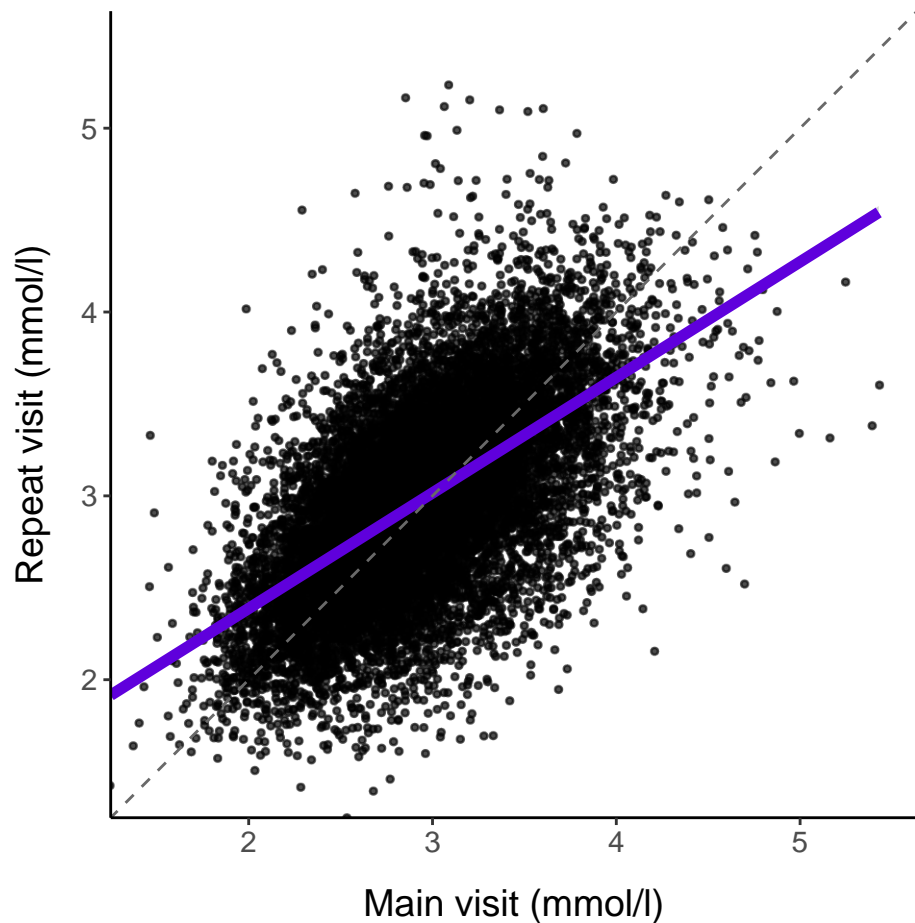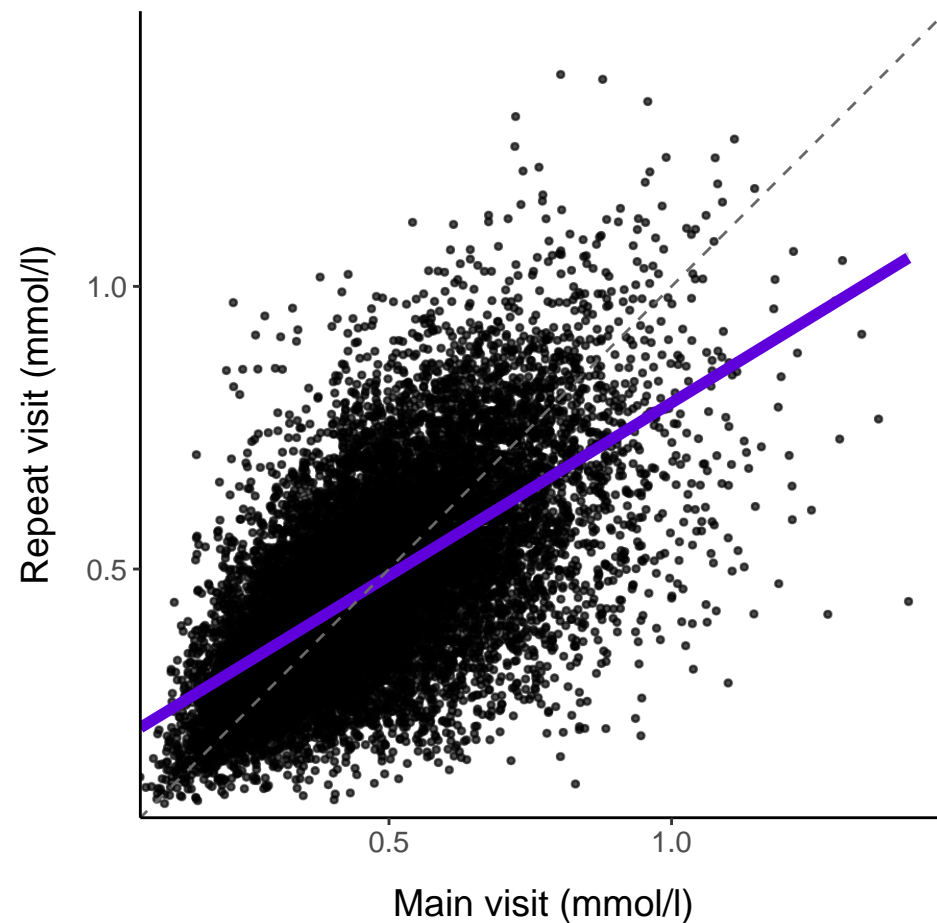# Phospholipids
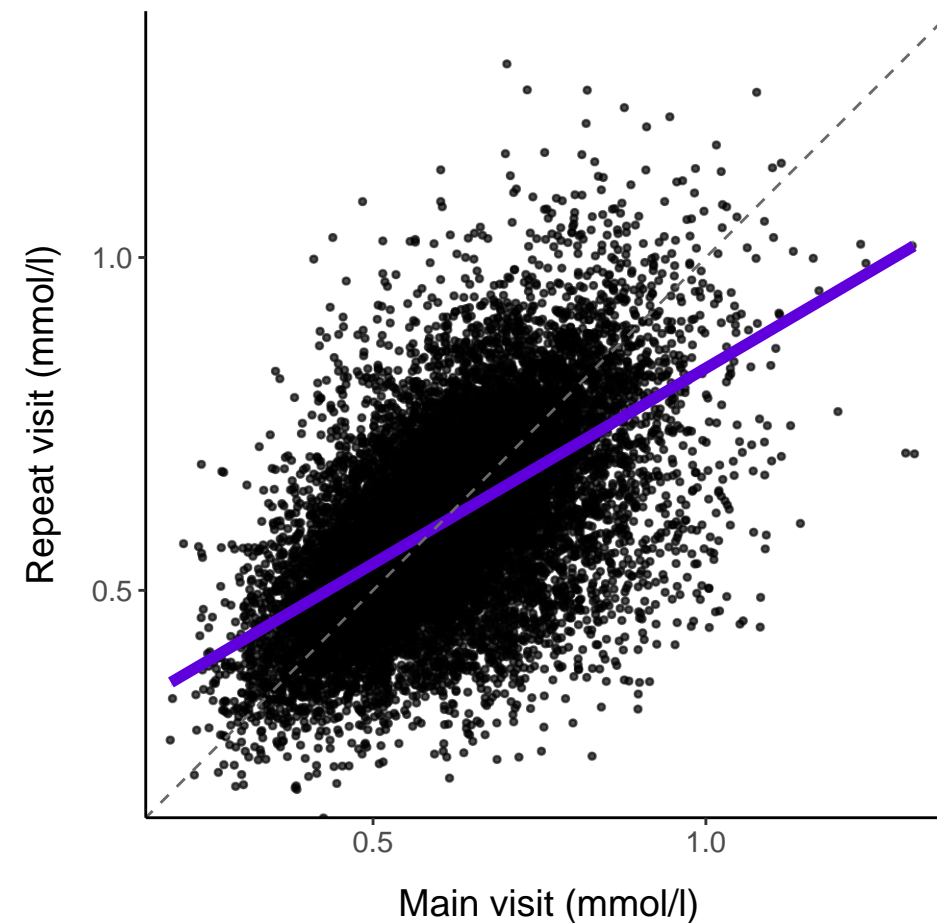
Total_PL

R: 0.6
y = 1.13 + 0.63x

VLDL_PL

R: 0.63
y = 0.18 + 0.61x

LDL_PL

R: 0.58
y = 0.25 + 0.59x

HDL_PL

R: 0.71
y = 0.45 + 0.74x
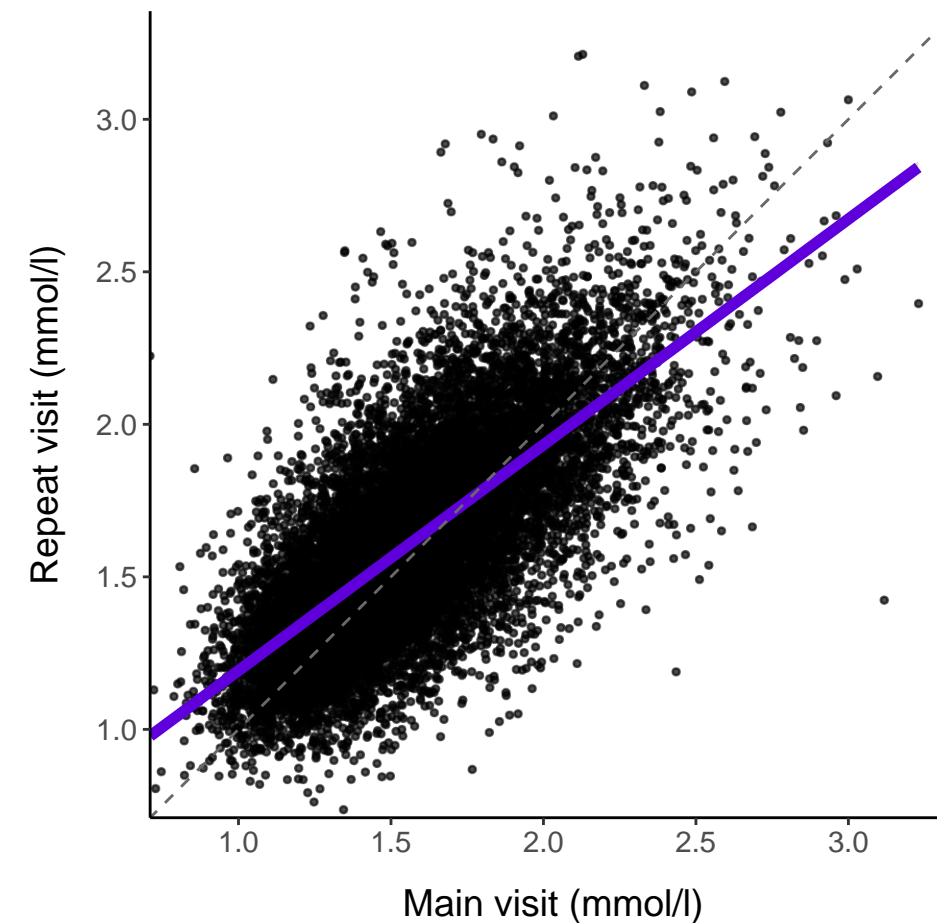
Cholesteryl esters
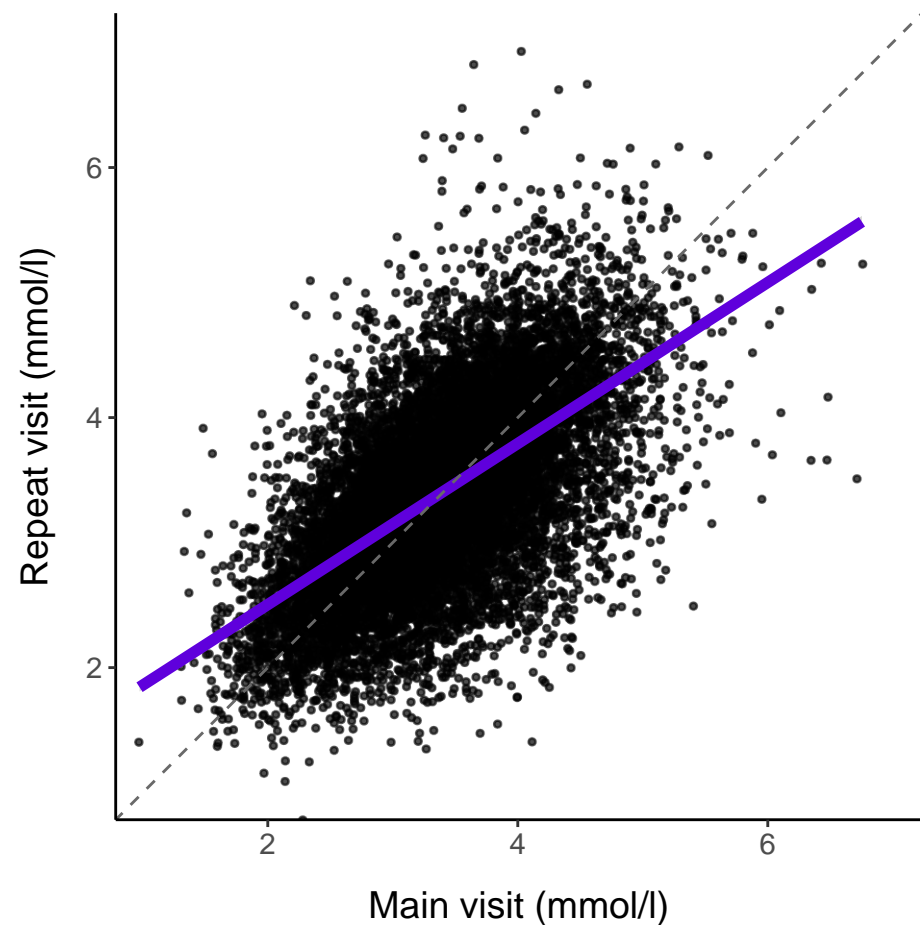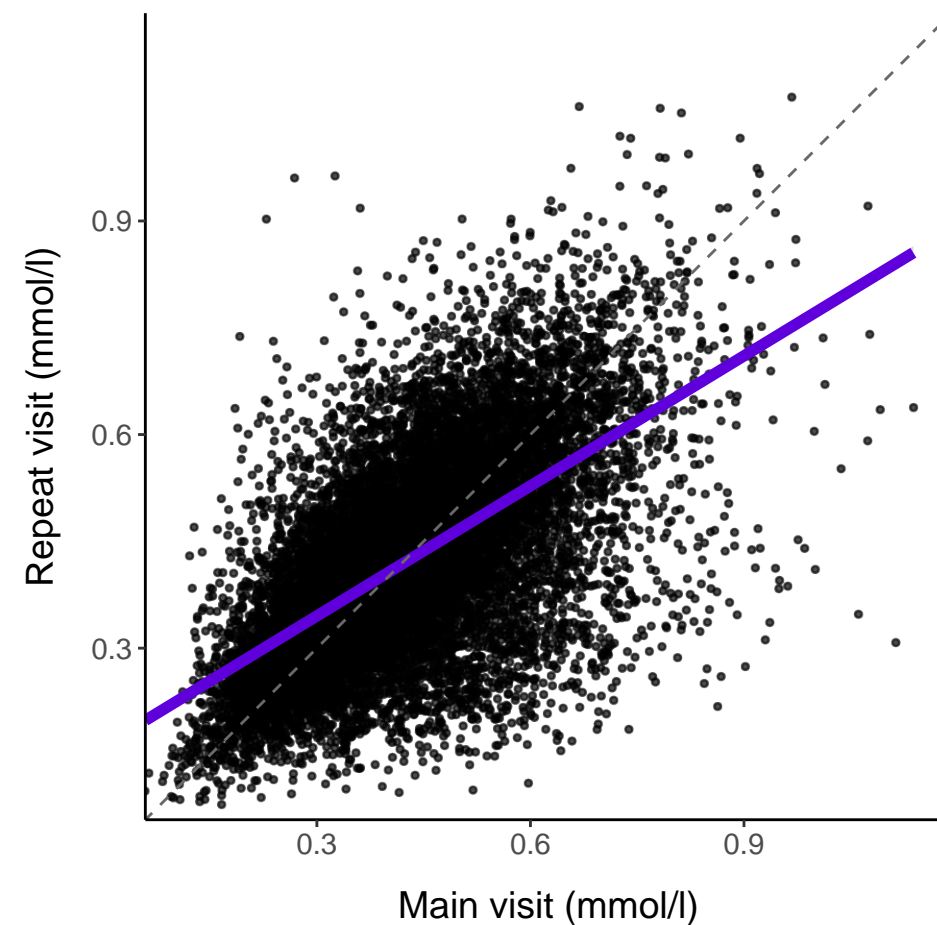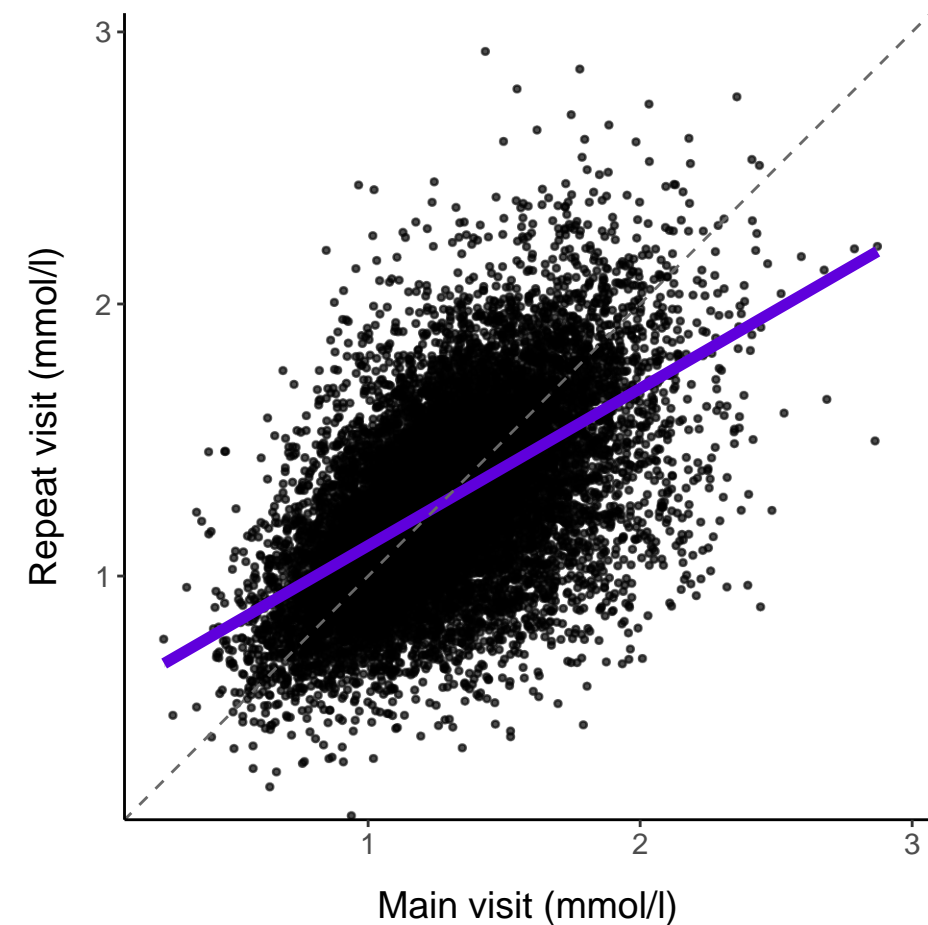
Total_CE	VLDL_CE	LDL_CE	HDL_CE
R: 0.61	R: 0.61	R: 0.56	R: 0.77
y = 1.22 + 0.64x	y = 0.16 + 0.61x	y = 0.53 + 0.58x	y = 0.23 + 0.81x
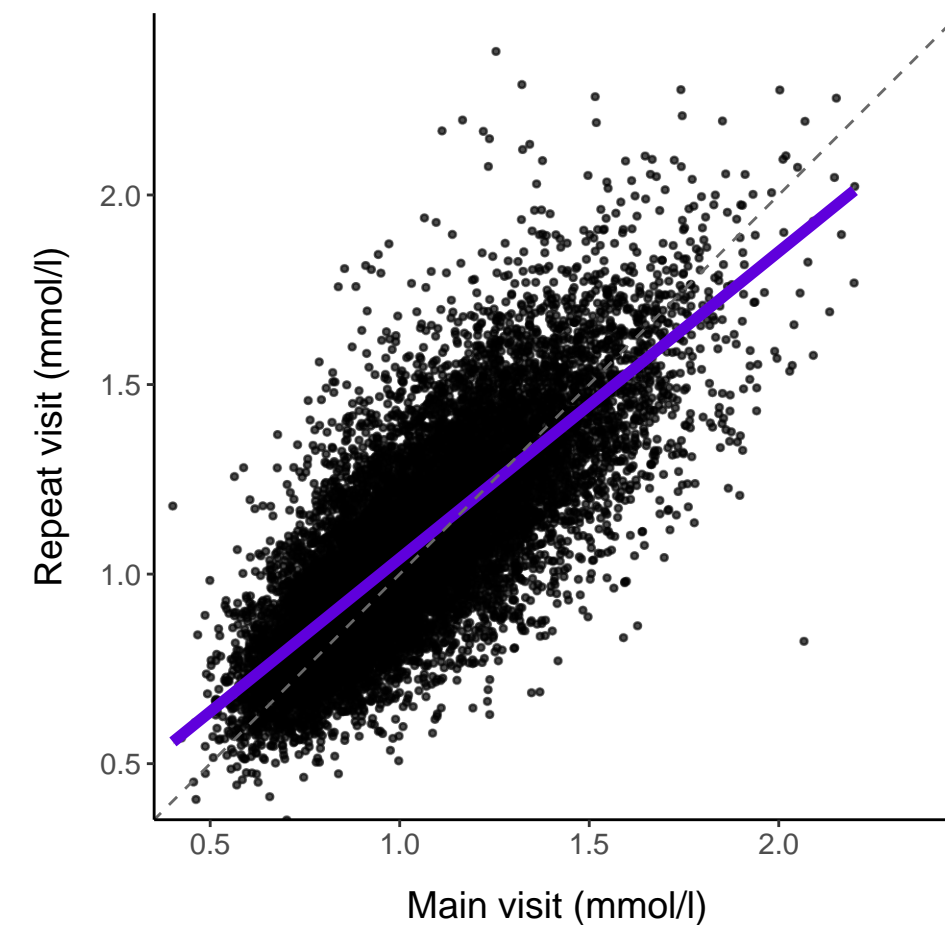
Free cholesterol

Total_FC	VLDL_FC	LDL_FC	HDL_FC
R: 0.6	R: 0.62	R: 0.58	R: 0.77
y = 0.47 + 0.63x	y = 0.11 + 0.61x	y = 0.18 + 0.60x	y = 0.06 + 0.82x
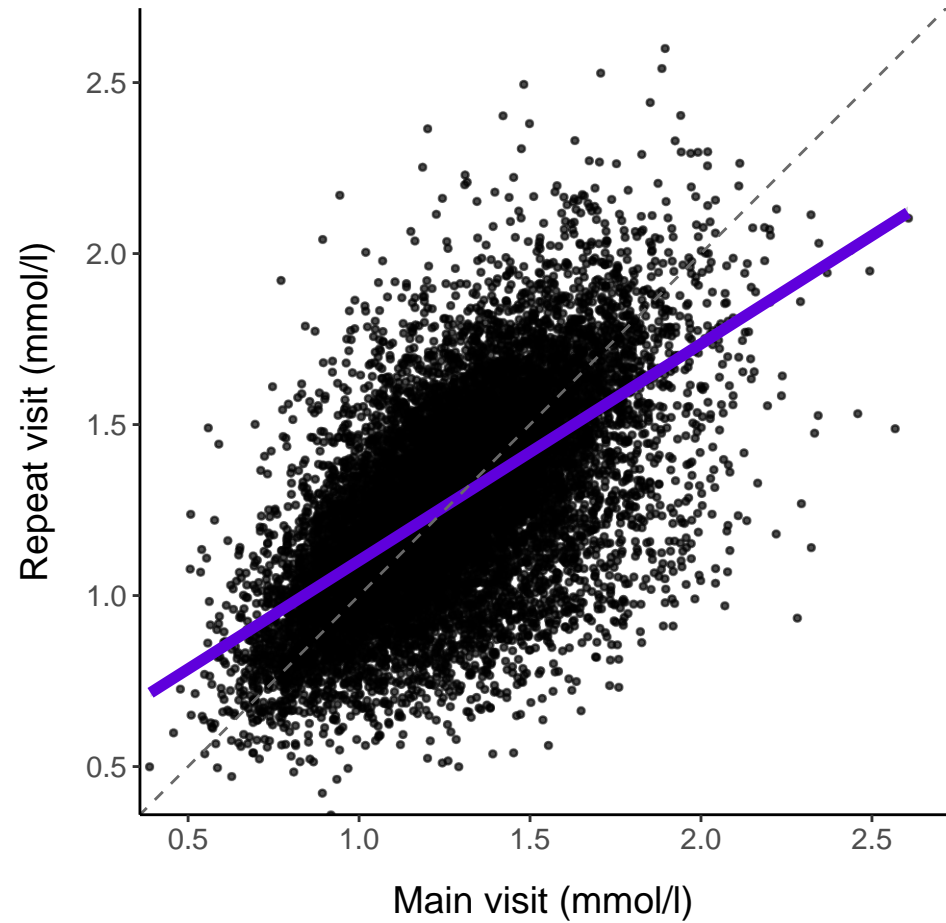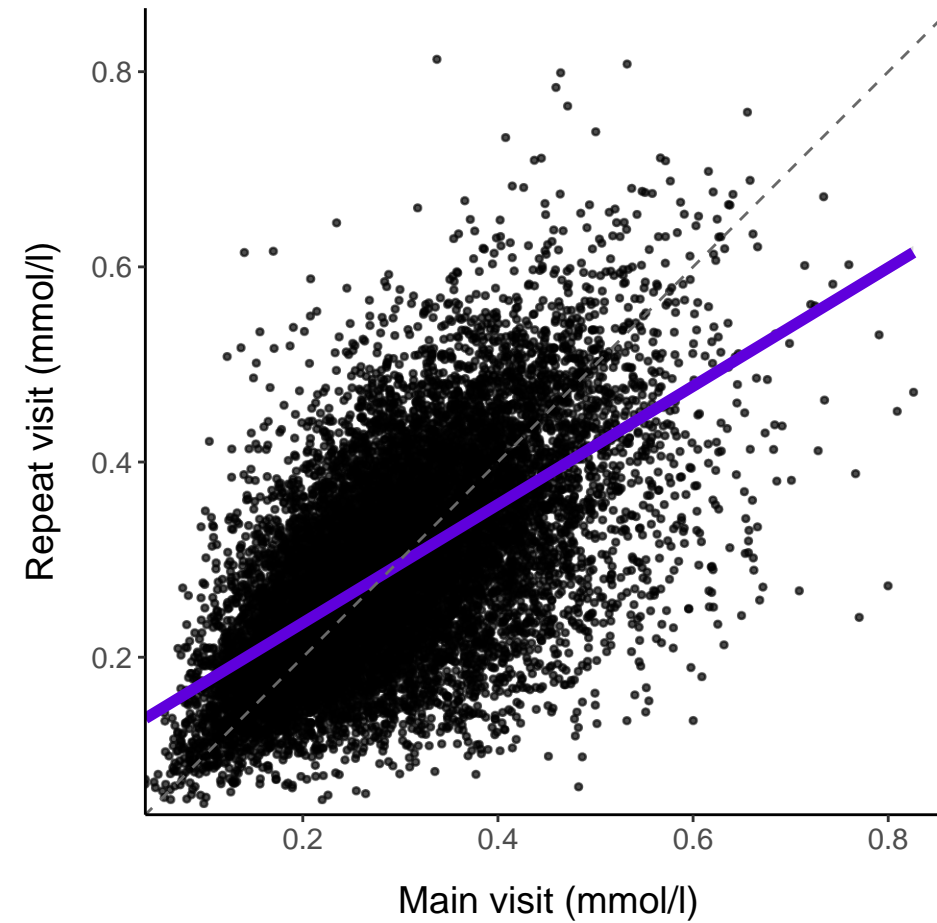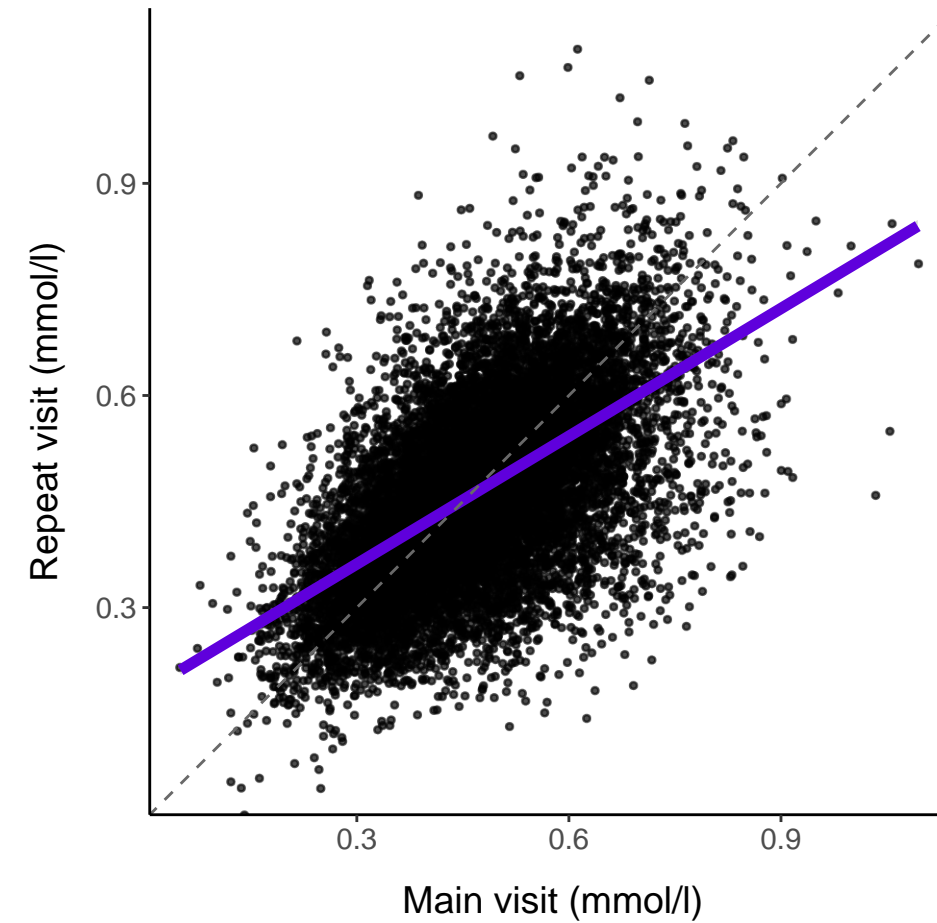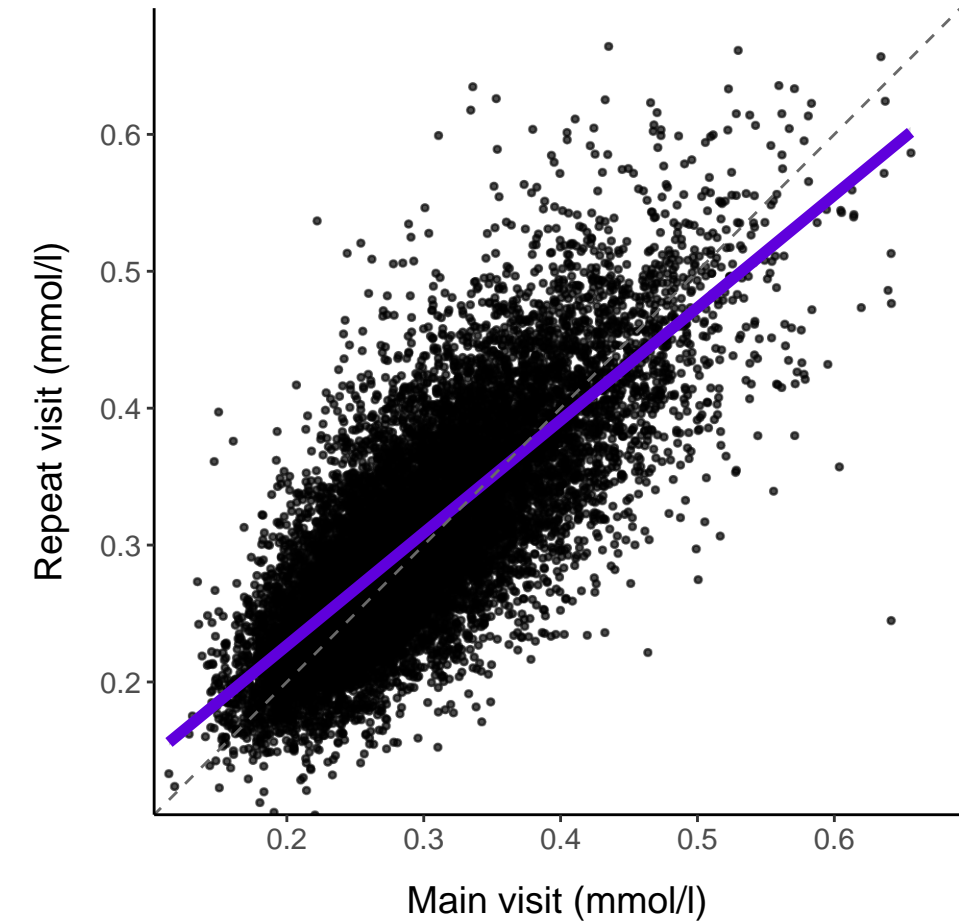
Total lipids
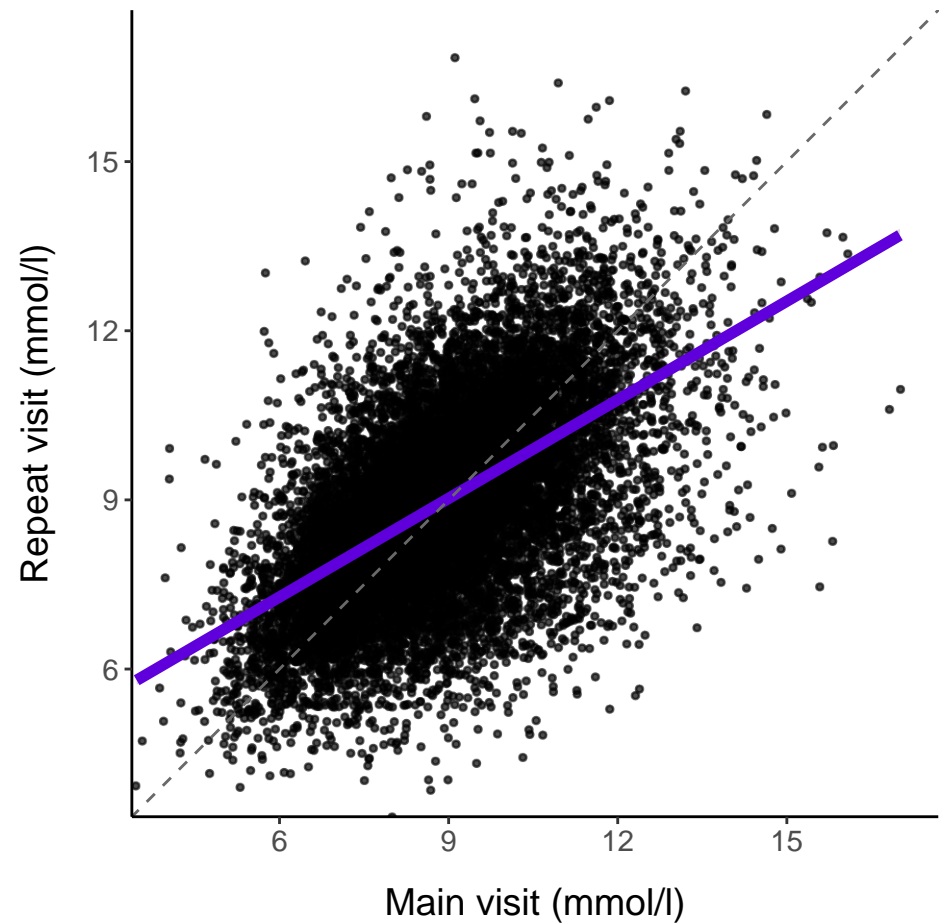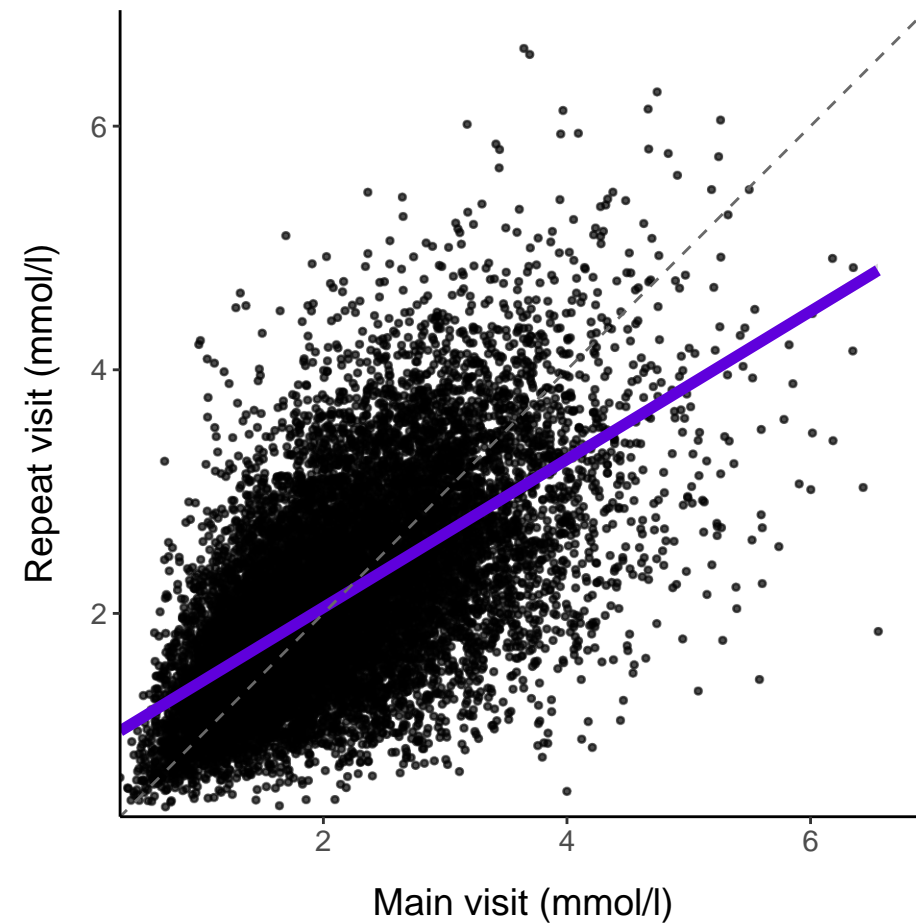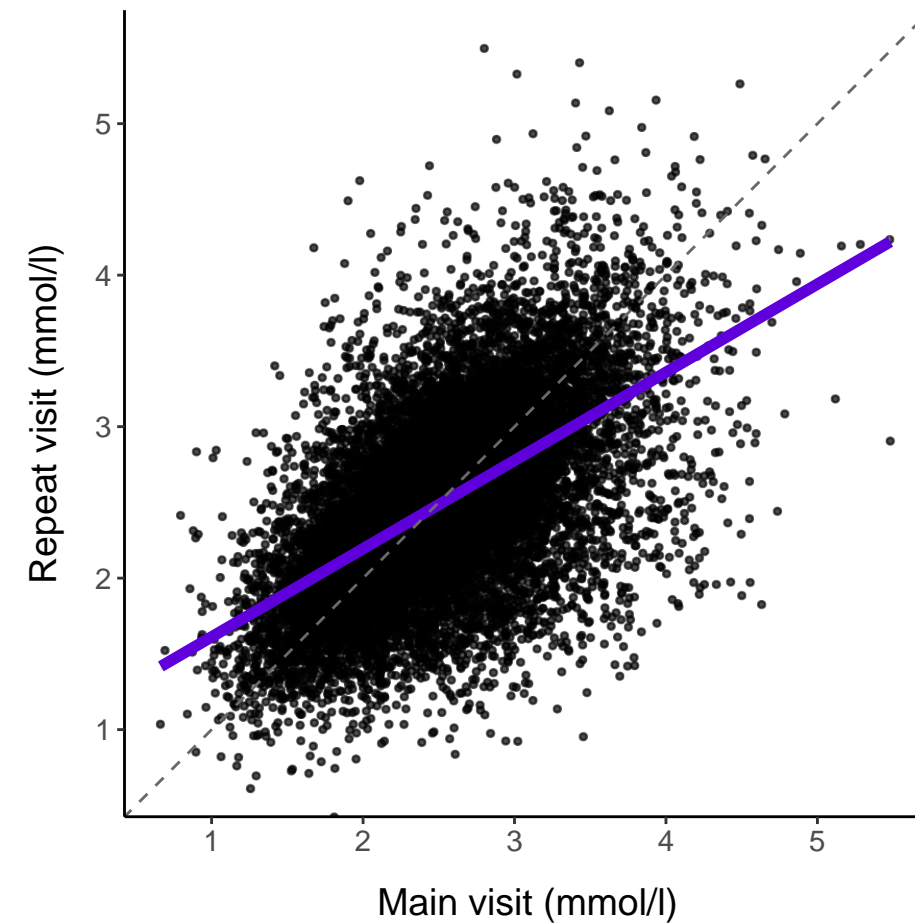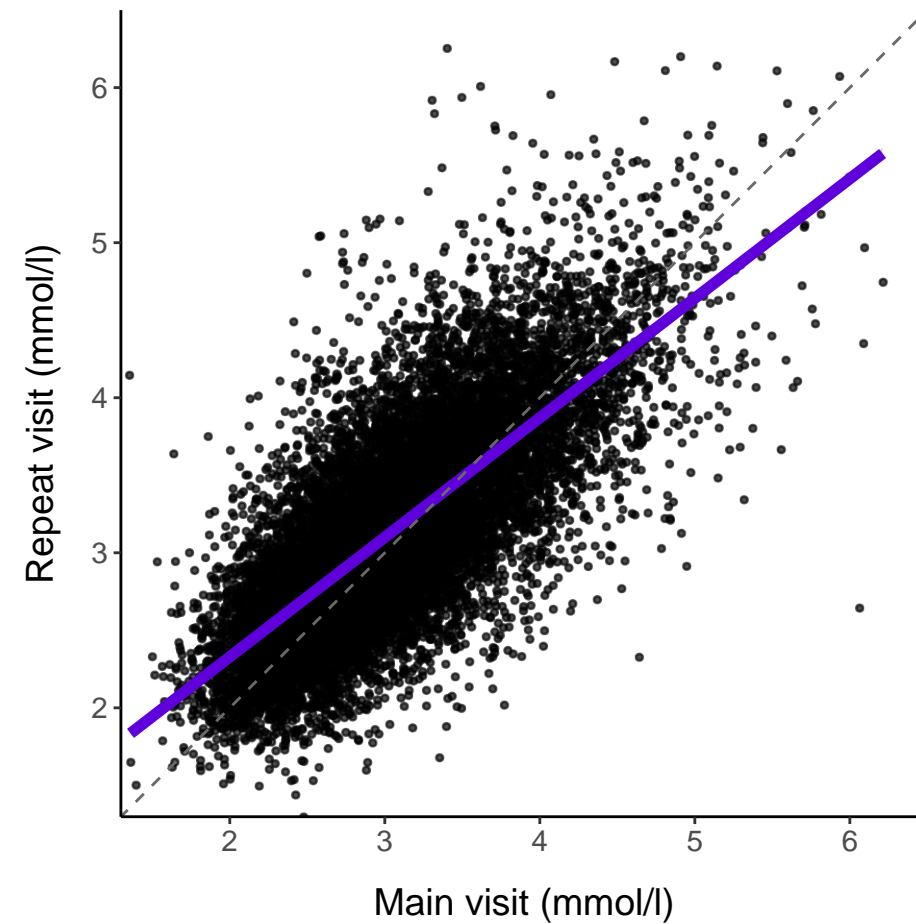
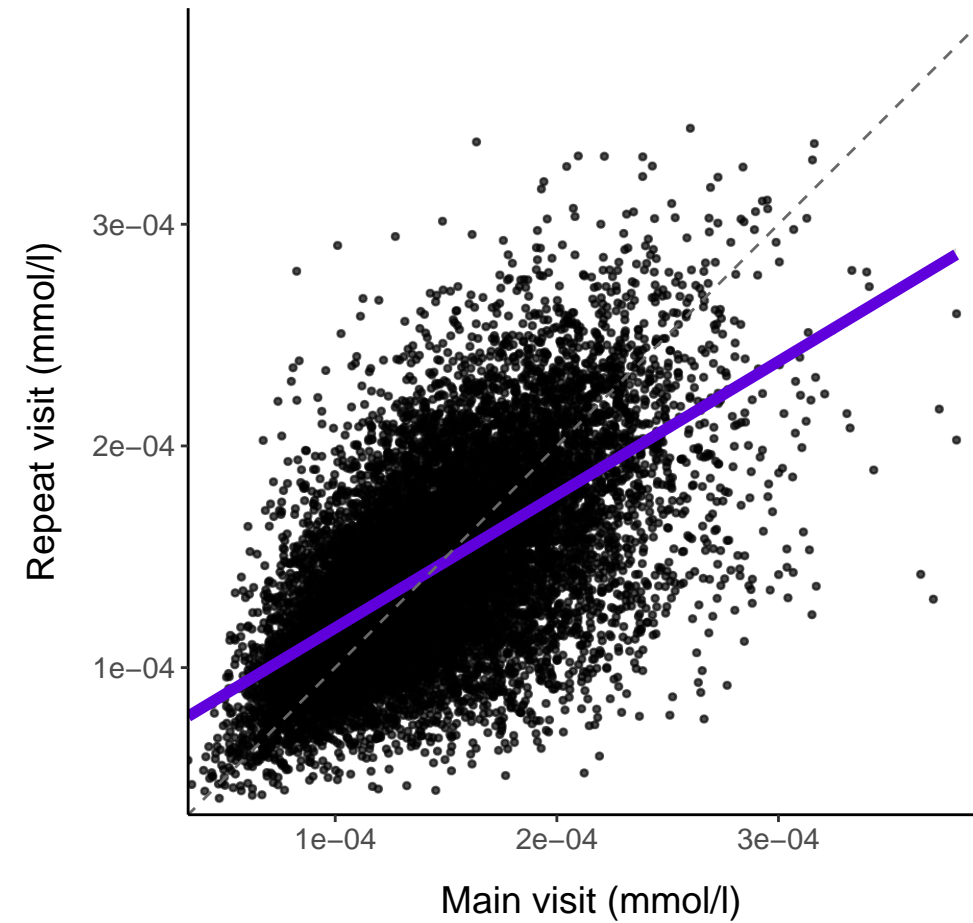**Lipoprotein particle concentrations**

Total_P
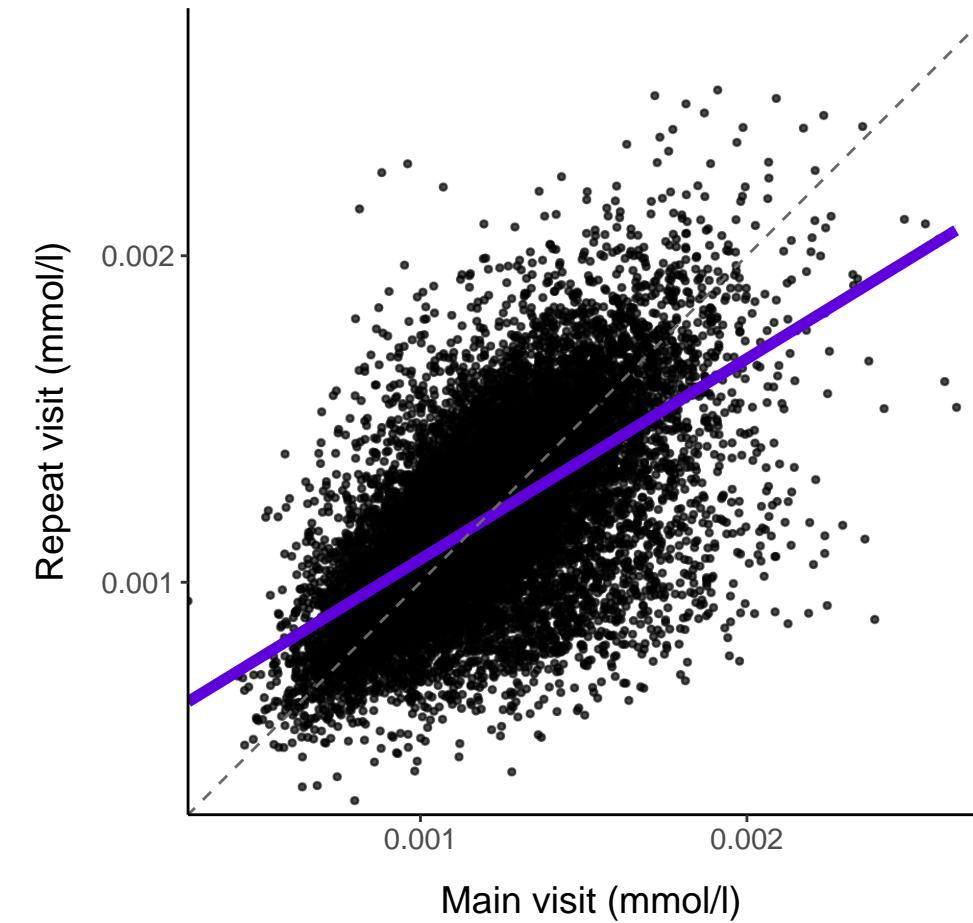R: 0.59
y = 0.01 + 0.62x
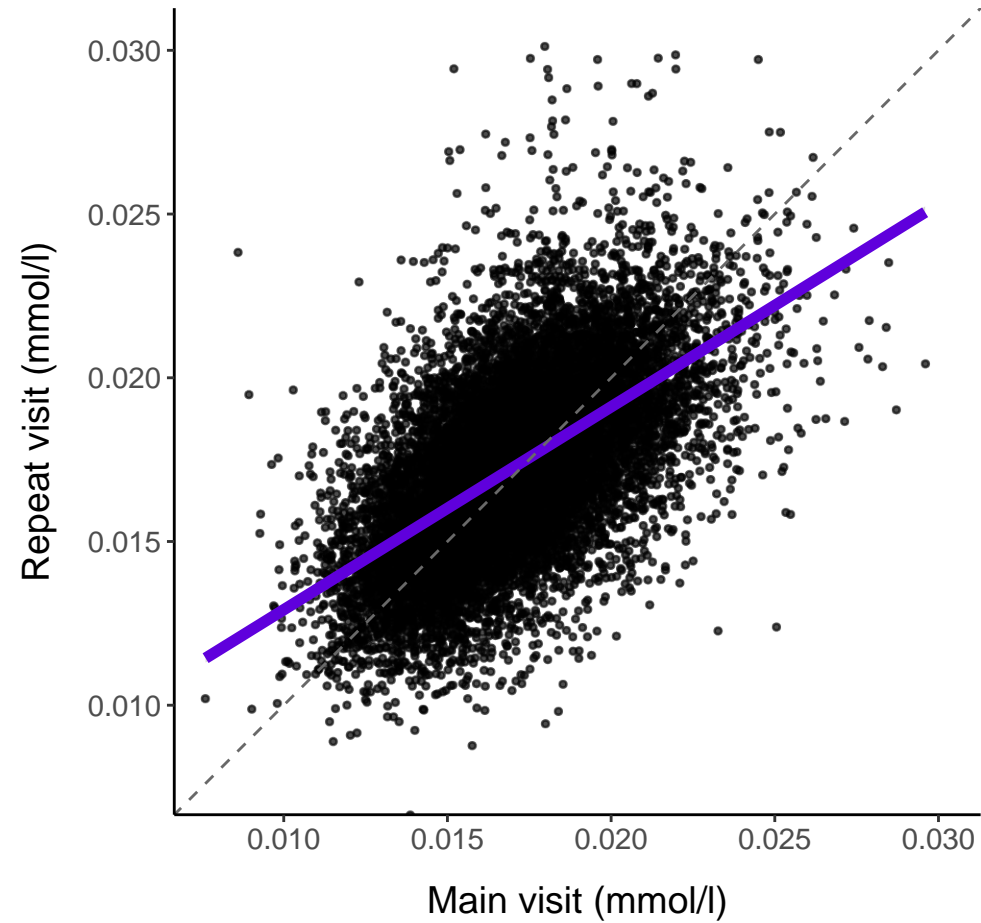
VLDL_P
R: 0.62
y = 0.00 + 0.60x

LDL_P
R: 0.61
y = 0.00 + 0.61x

HDL_P
R: 0.6
y = 0.01 + 0.63x
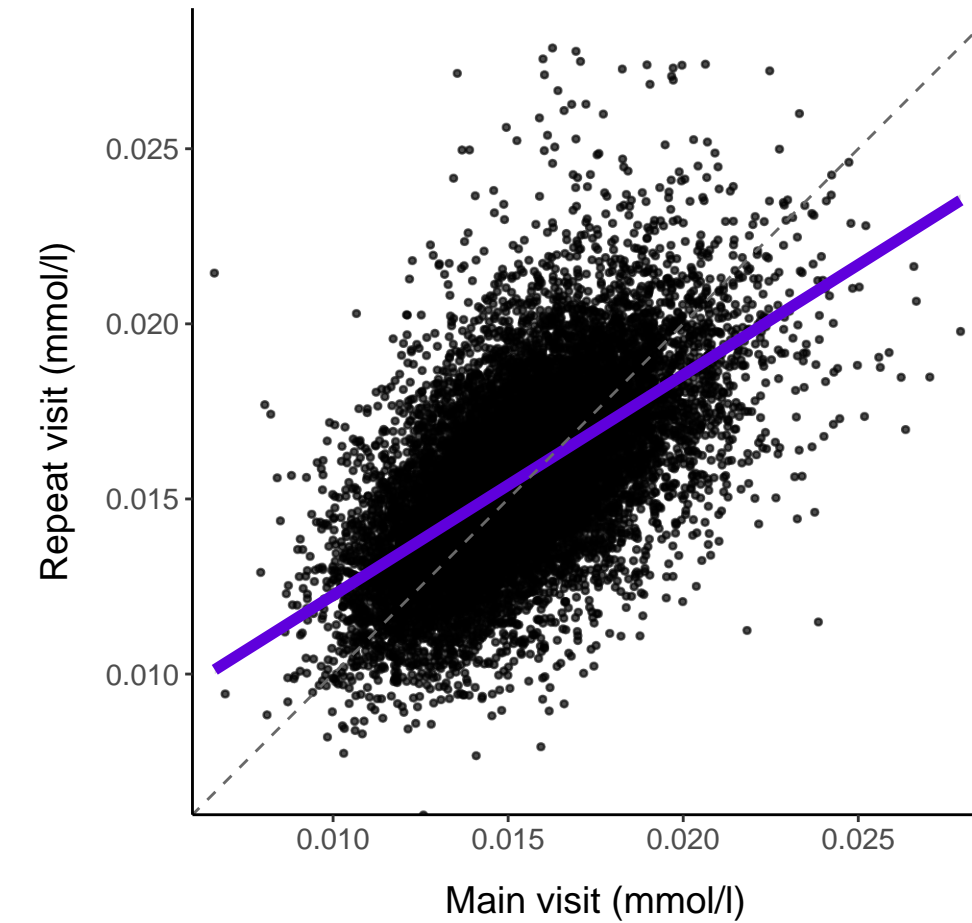
Lipoprotein particle sizes
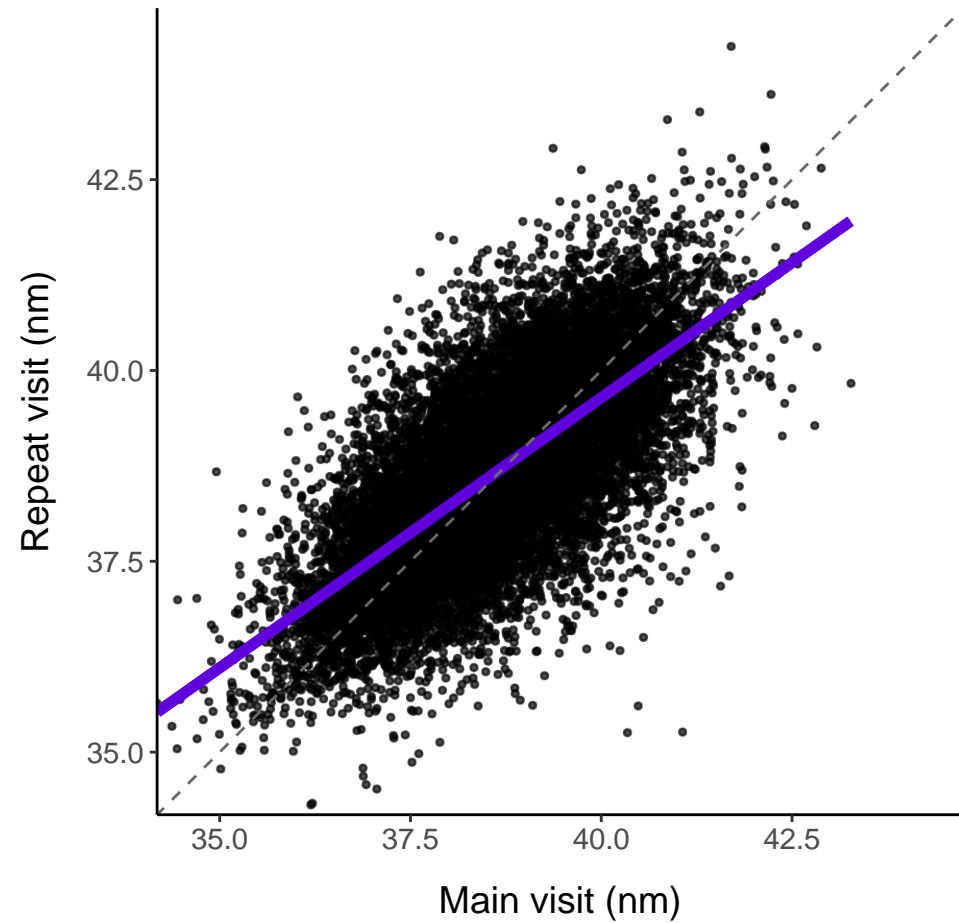
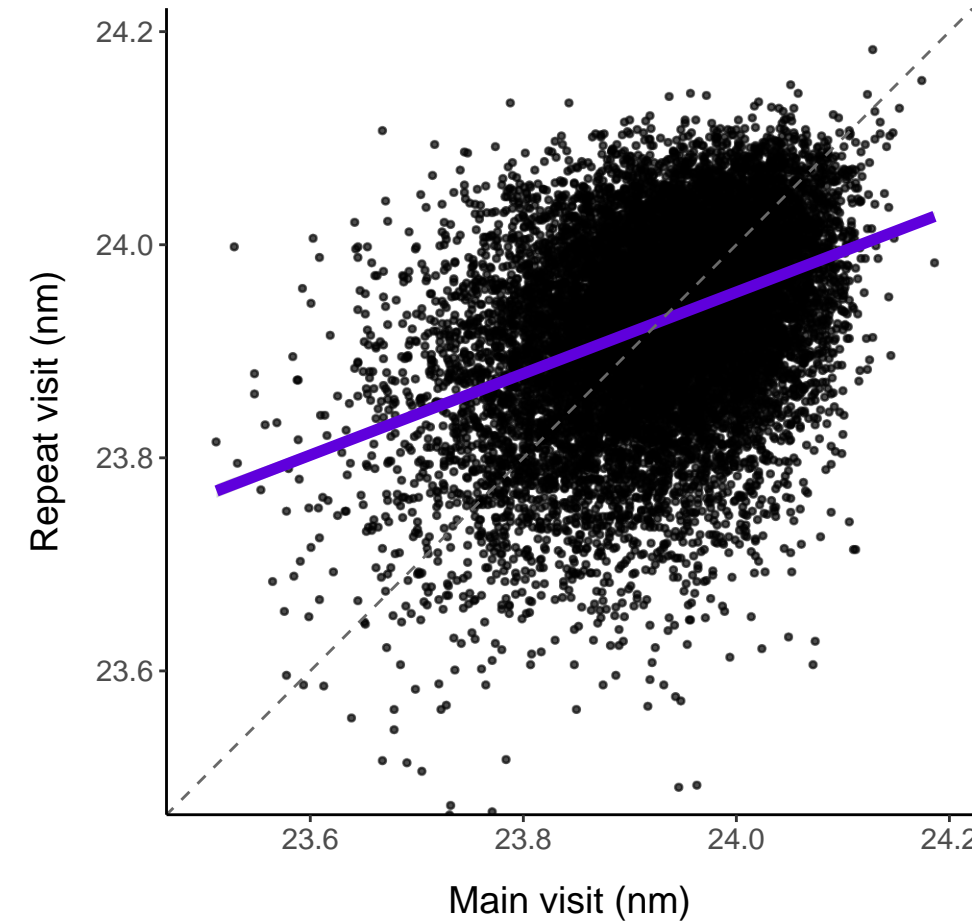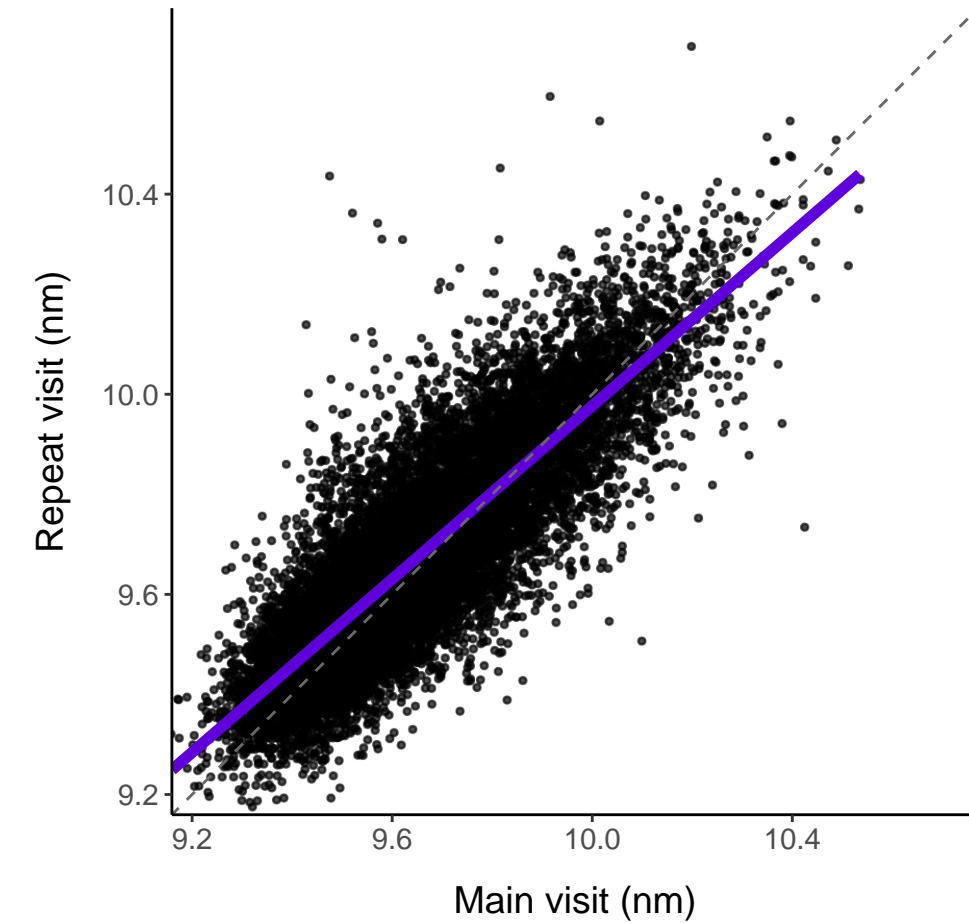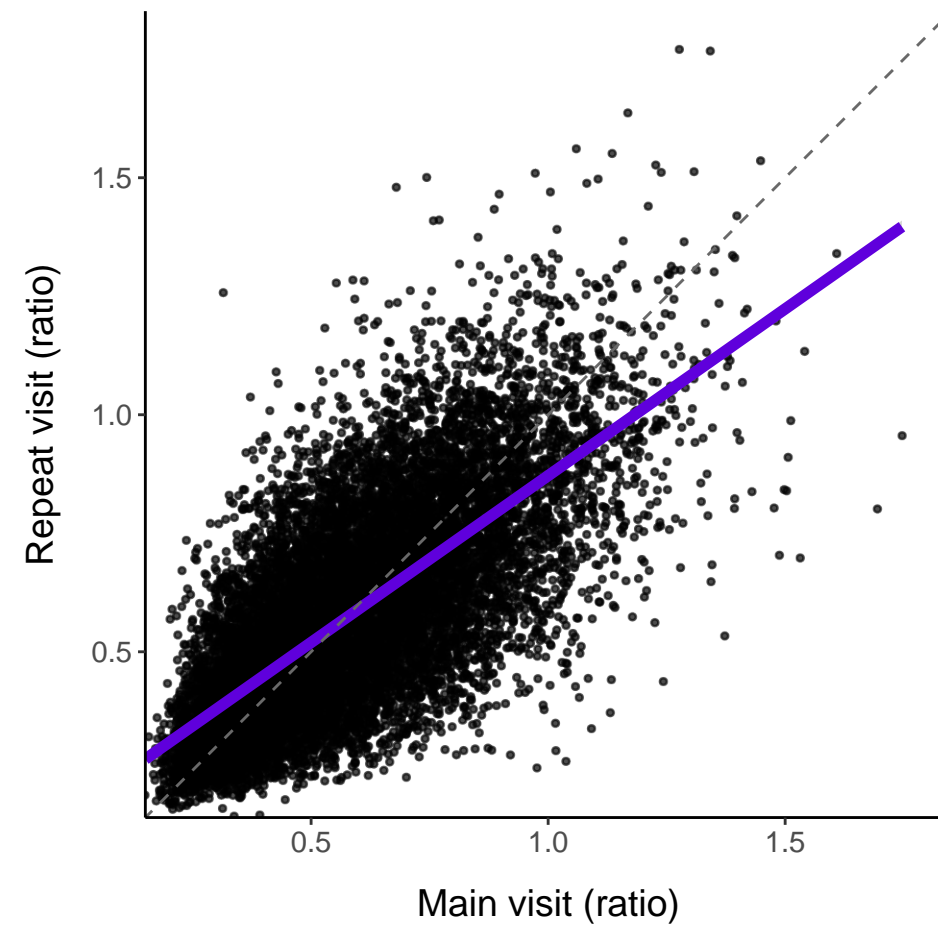# Other lipids

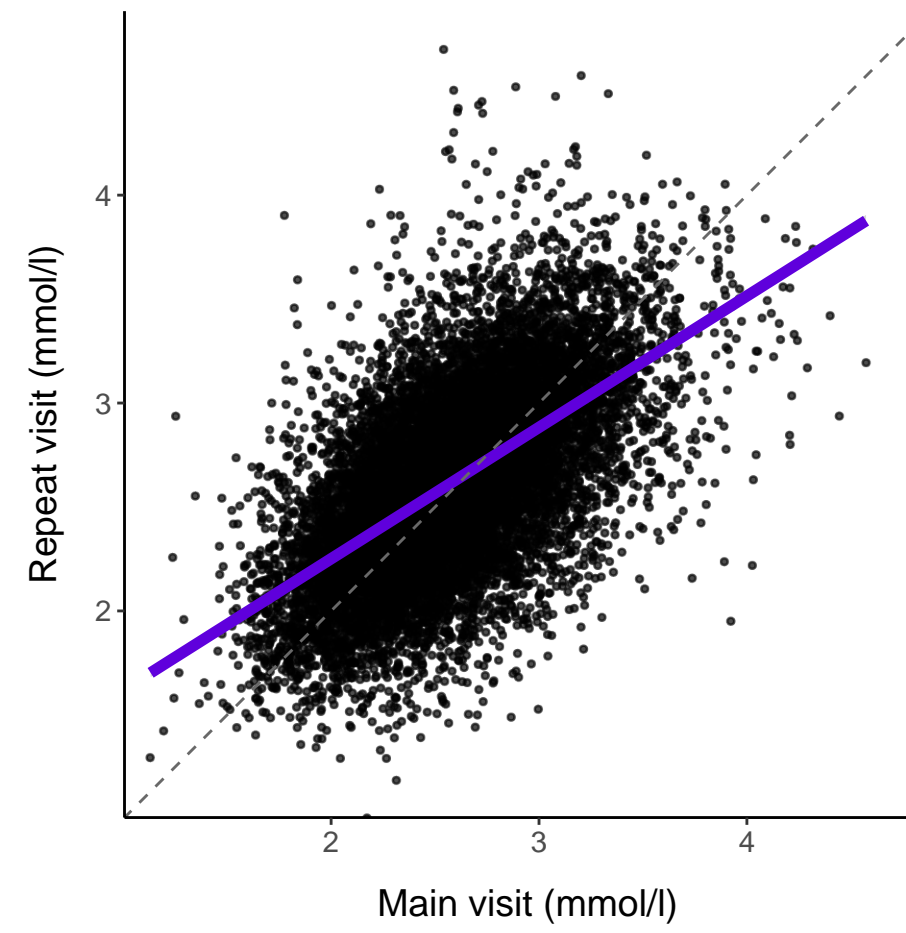**Phosphoglyc**
R: 0.58
y = 0.93 + 0.61x
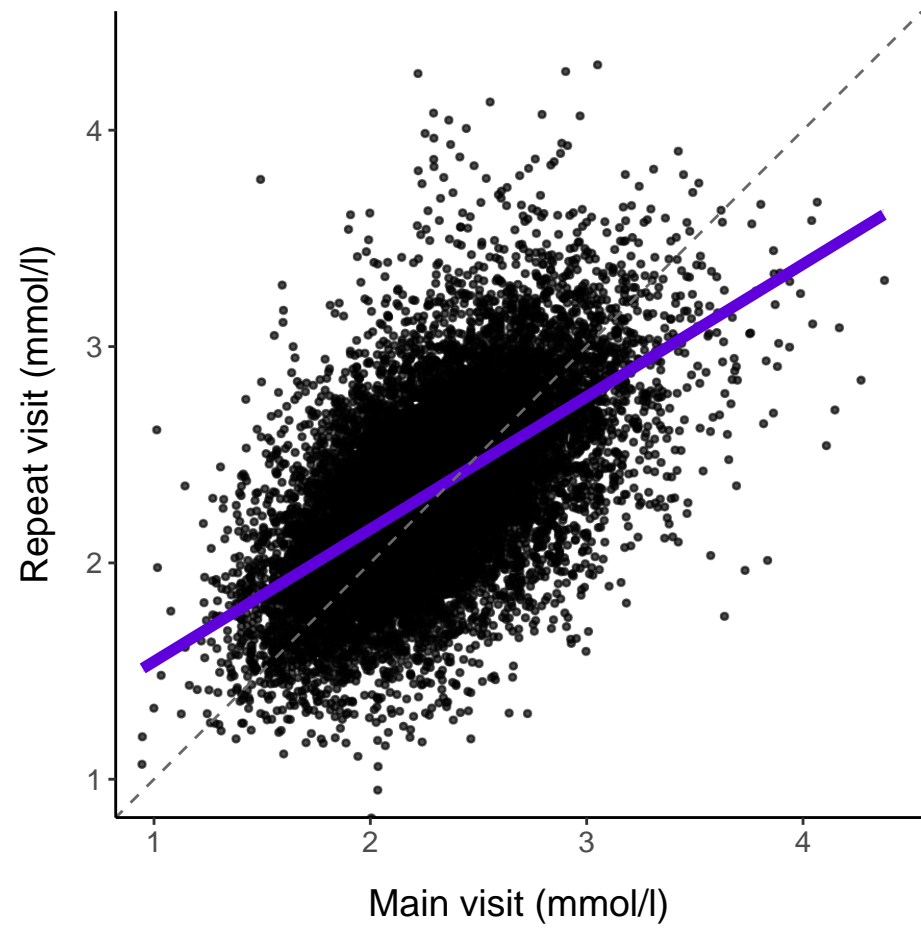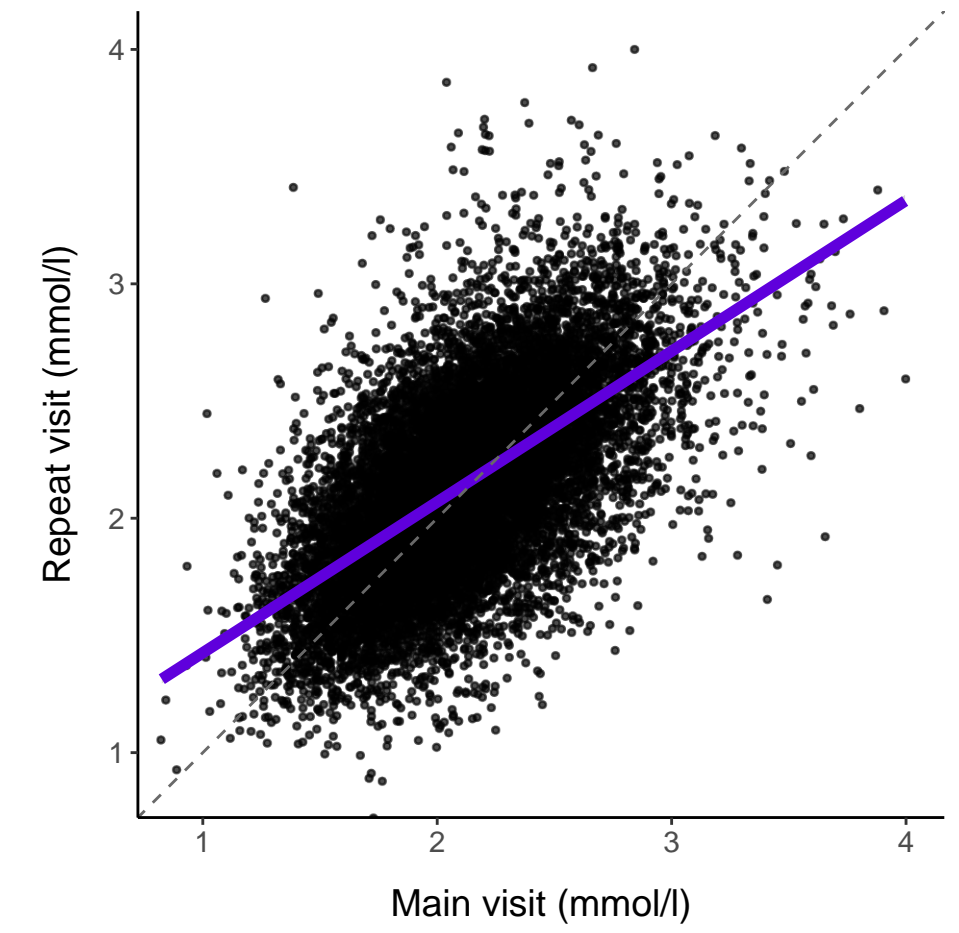
TG_by_PG
R: 0.72
y = 0.17 + 0.70x

Cholines
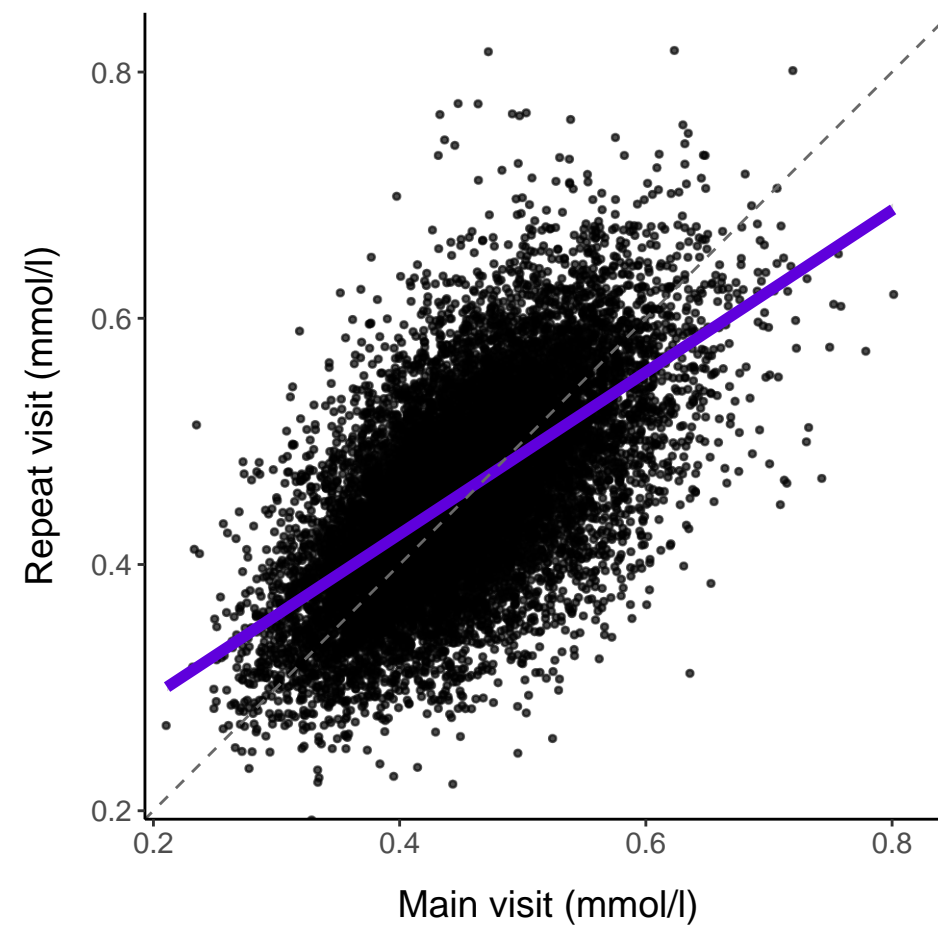R: 0.6
y = 0.99 + 0.63x

Phosphatidylc
R: 0.61
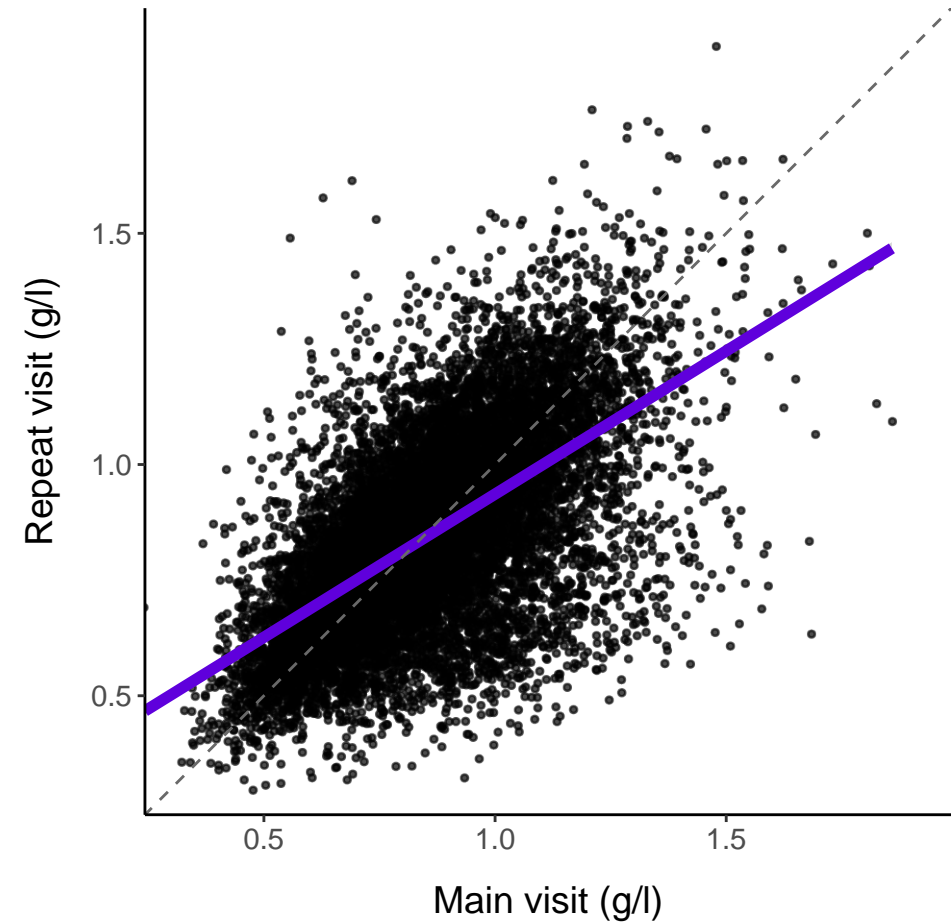y = 0.78 + 0.64x

Sphingomyelins
R: 0.61
y = 0.16 + 0.66x

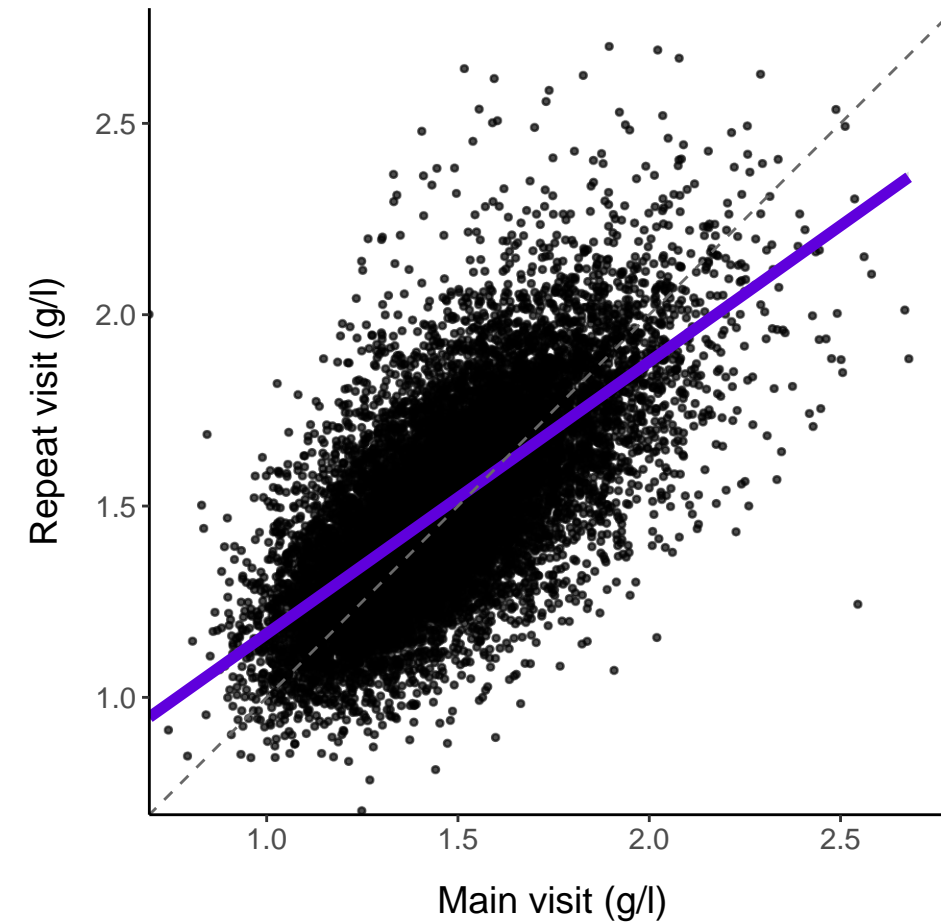# Apolipoproteins
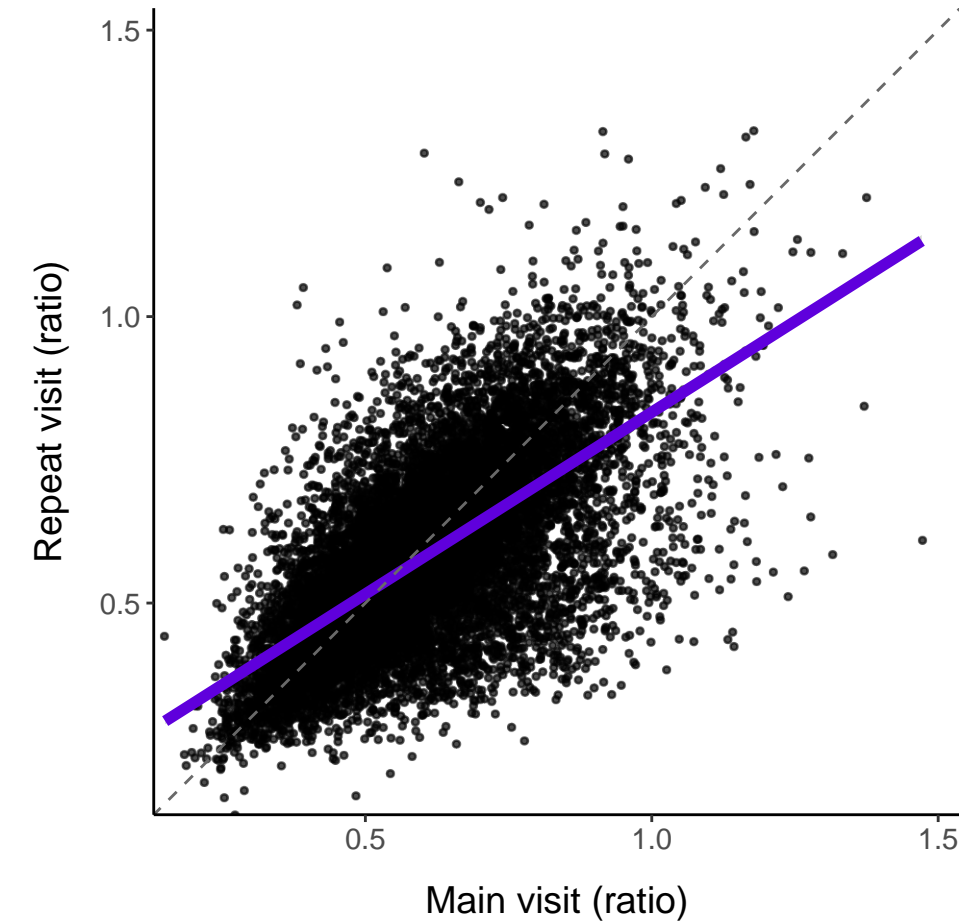

ApoB

R: 0.61
y = 0.32 + 0.62x

ApoA1

R: 0.68
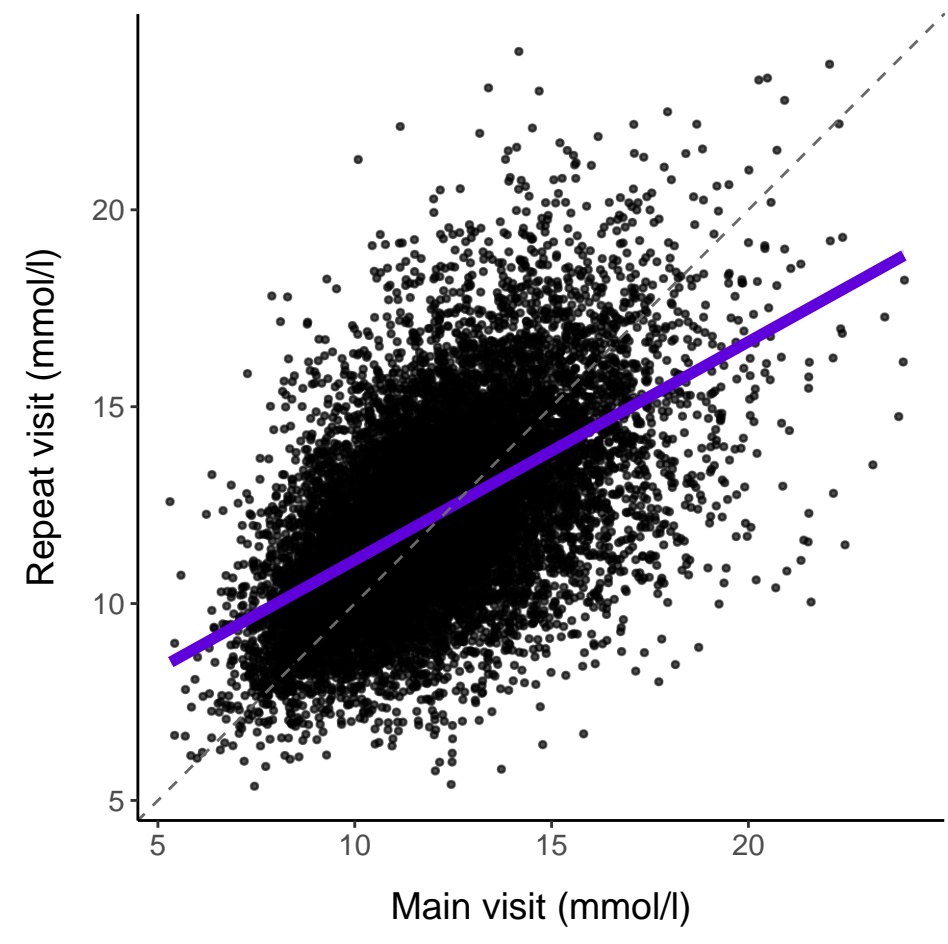y = 0.46 + 0.71x

ApoB_by_ApoA1
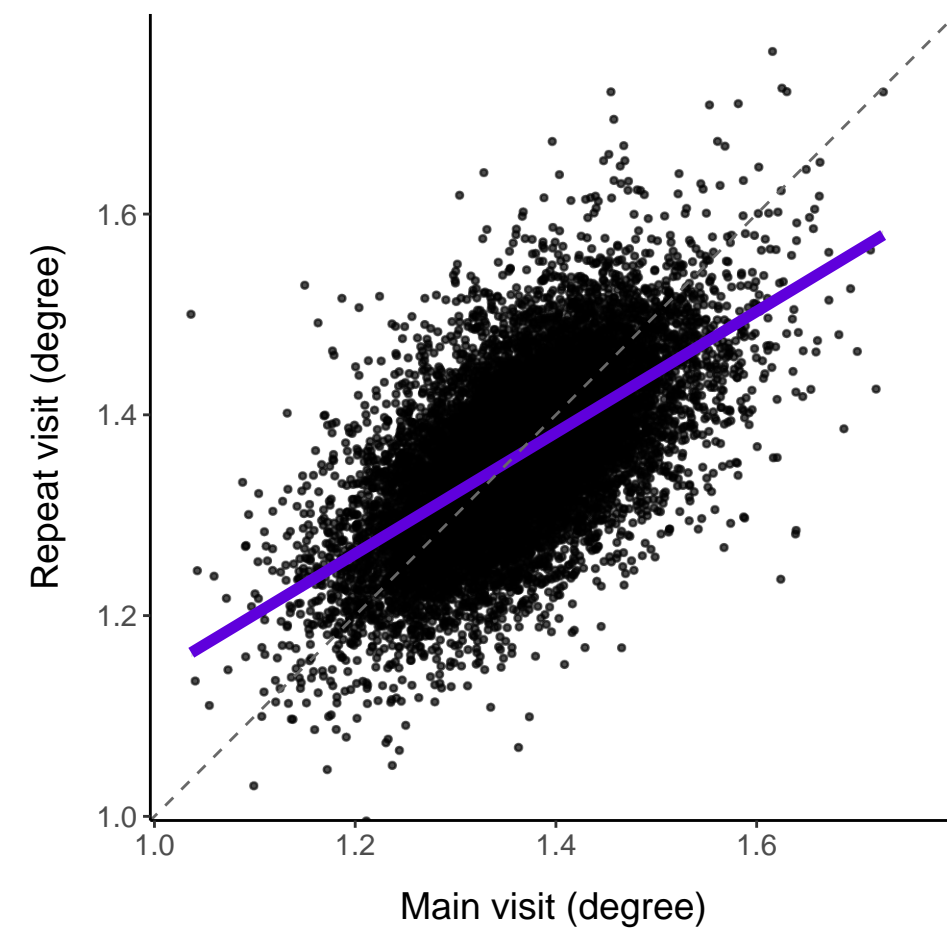
R: 0.67
y = 0.20 + 0.63x

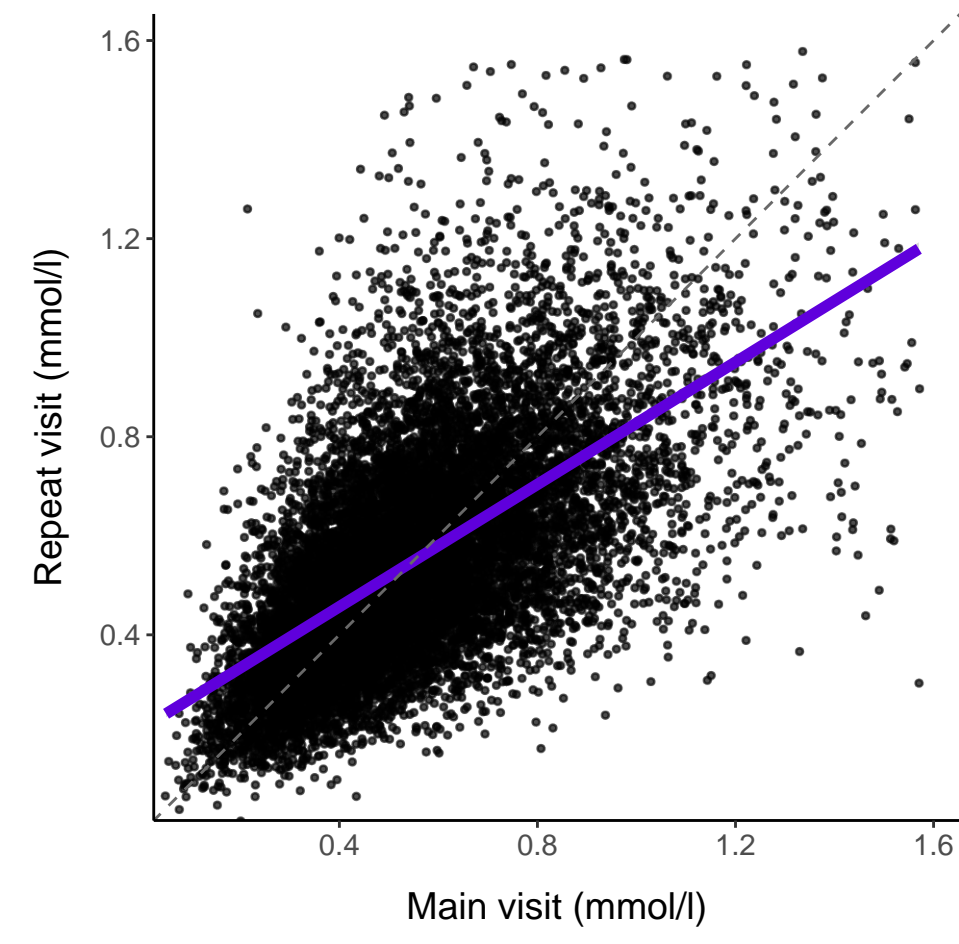# Fatty acids

Total_FA
R: 0.55
y = 5.56 + 0.55x

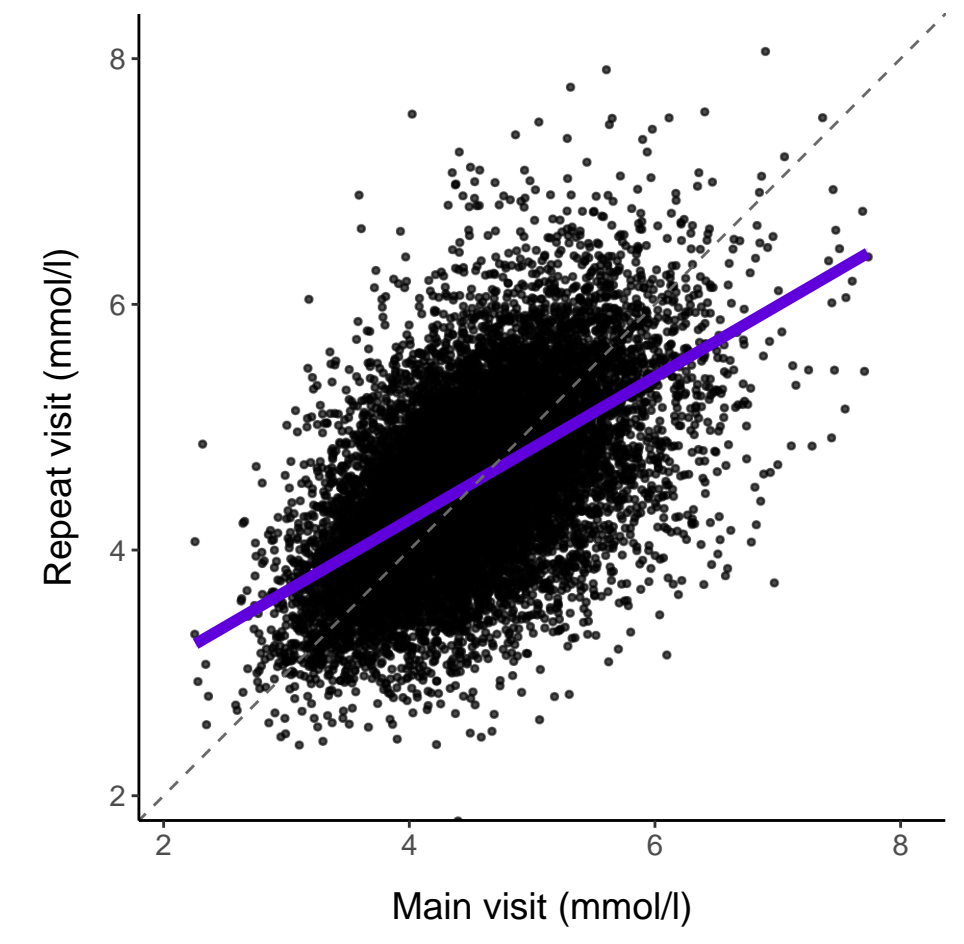**Unsaturation**
R: 0.61
y = 0.54 + 0.60x

Omega_3
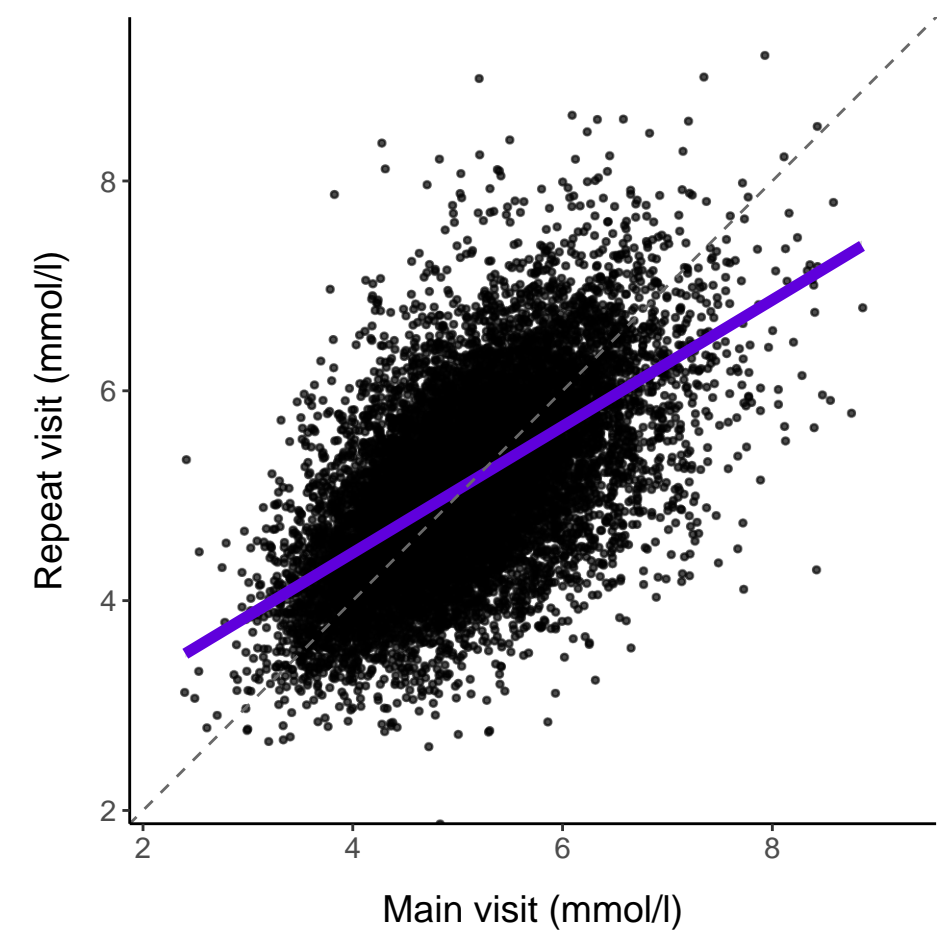R: 0.63
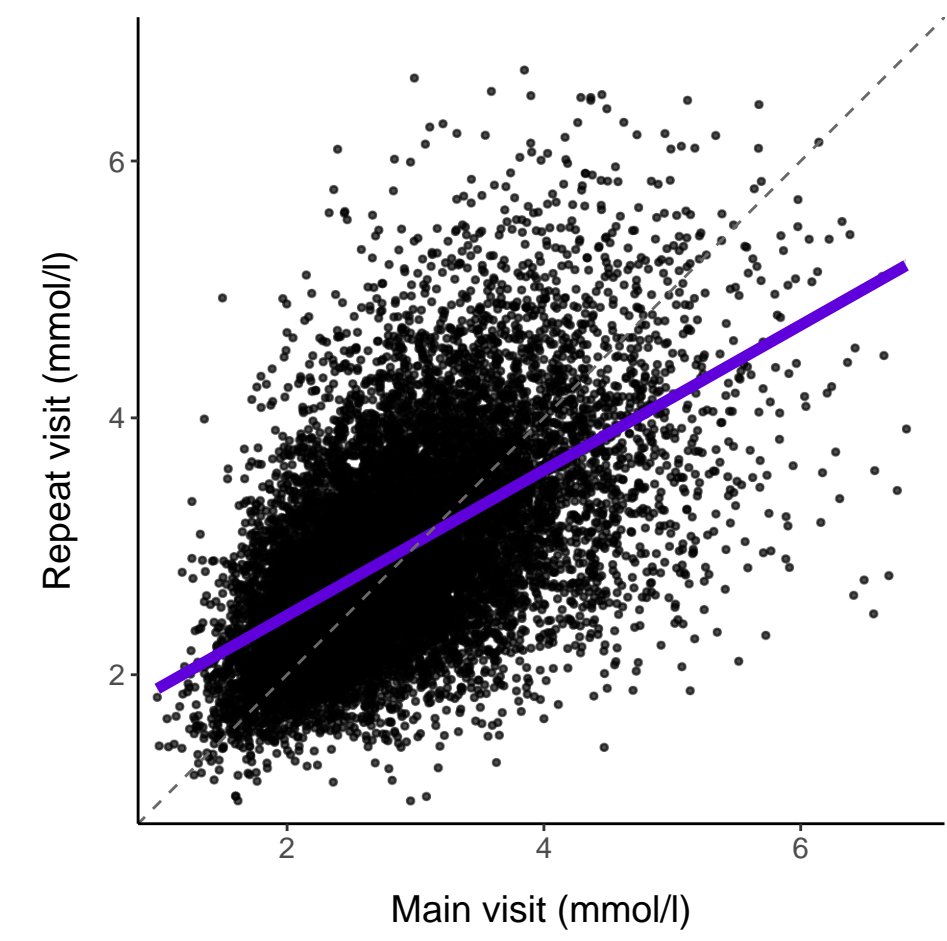y = 0.21 + 0.62x

Omega_6
R: 0.56
y = 1.92 + 0.58x
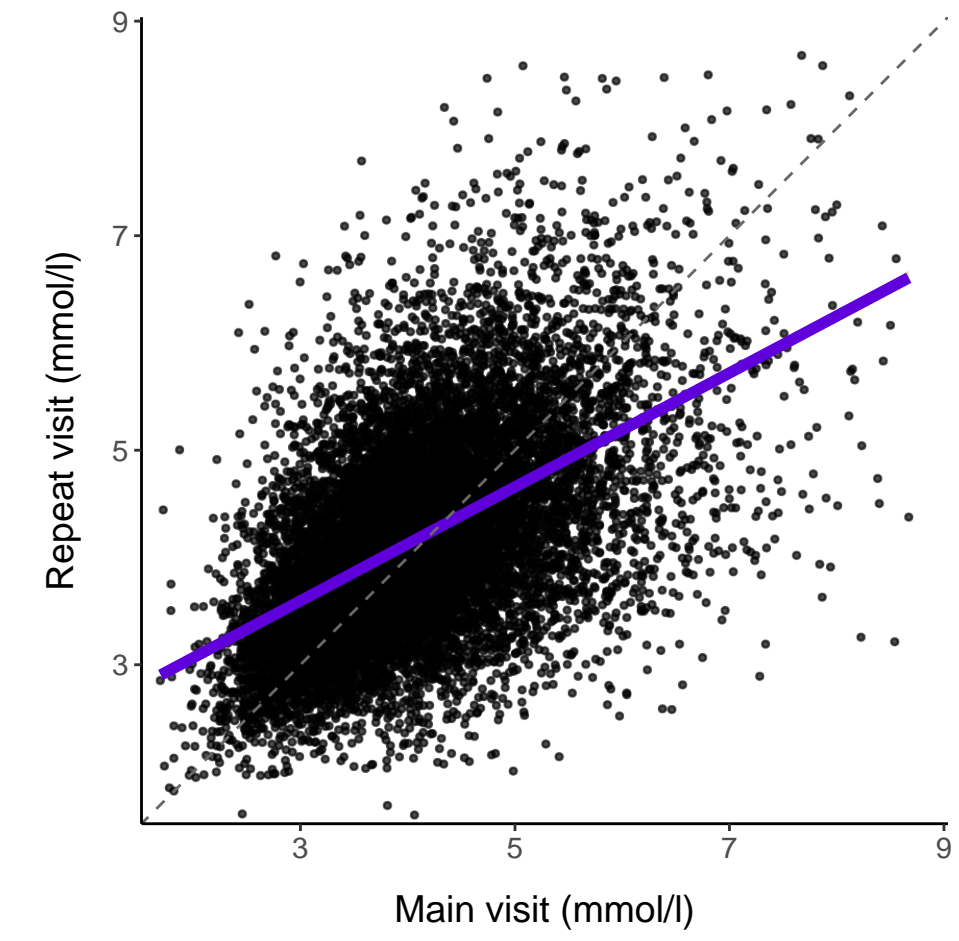
PUFA
R: 0.59
y = 2.05 + 0.60x
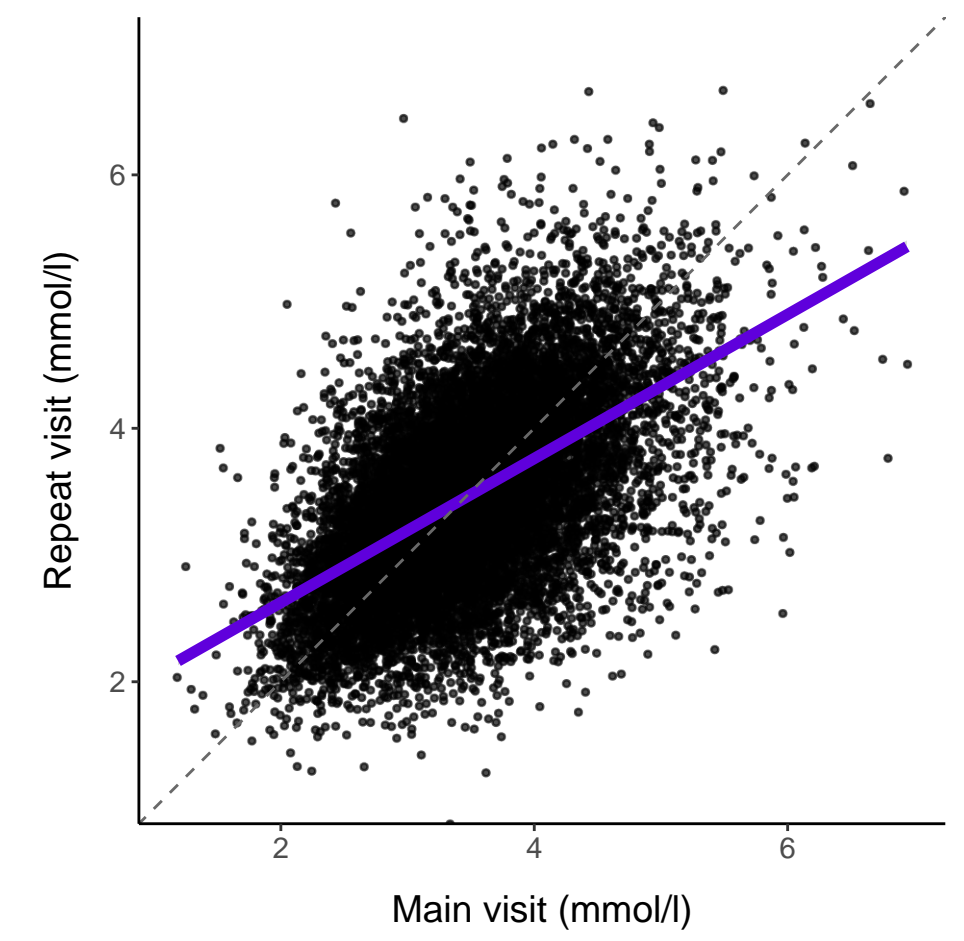
MUFA
R: 0.57
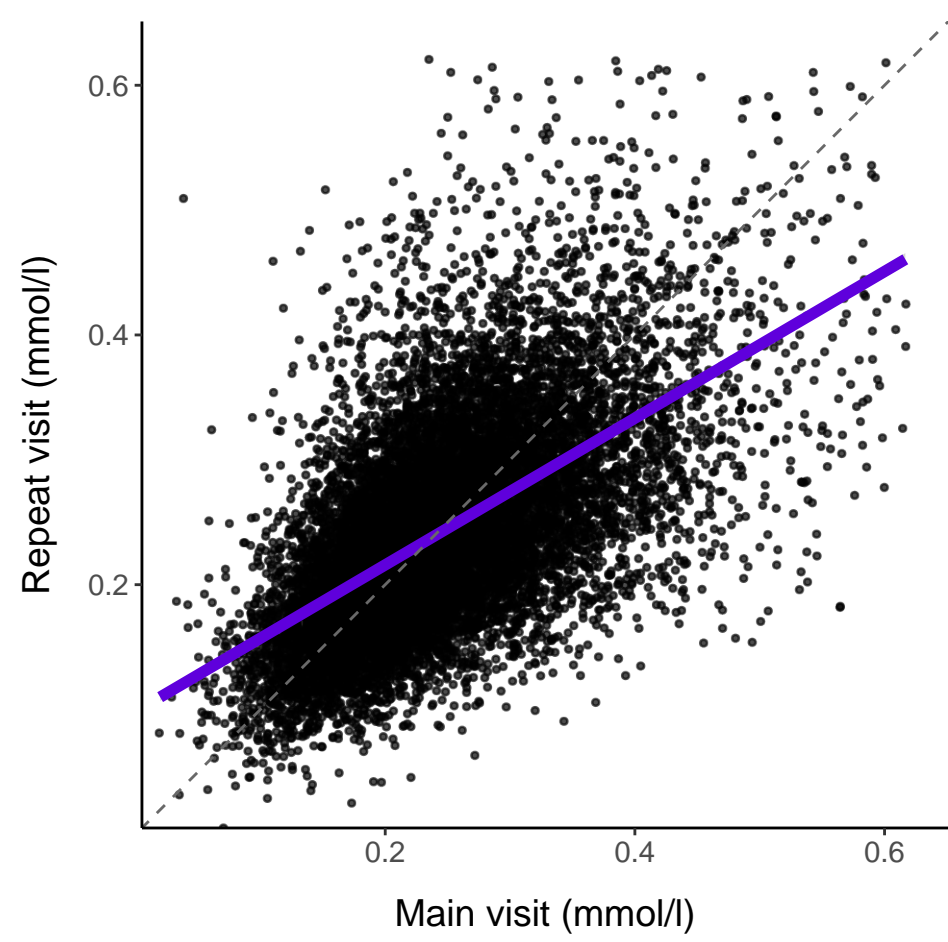y = 1.33 + 0.57x

SFA
R: 0.53
y = 2.00 + 0.53x

LA
R: 0.55
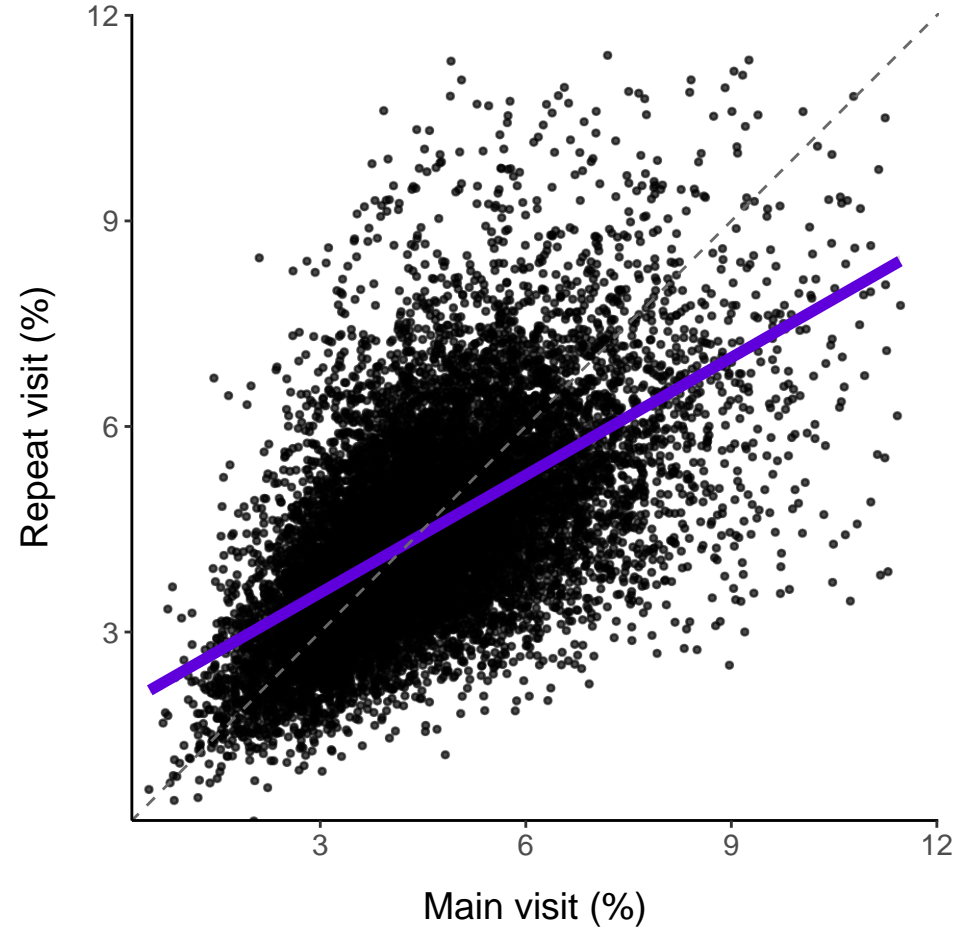y = 1.49 + 0.57x

DHA
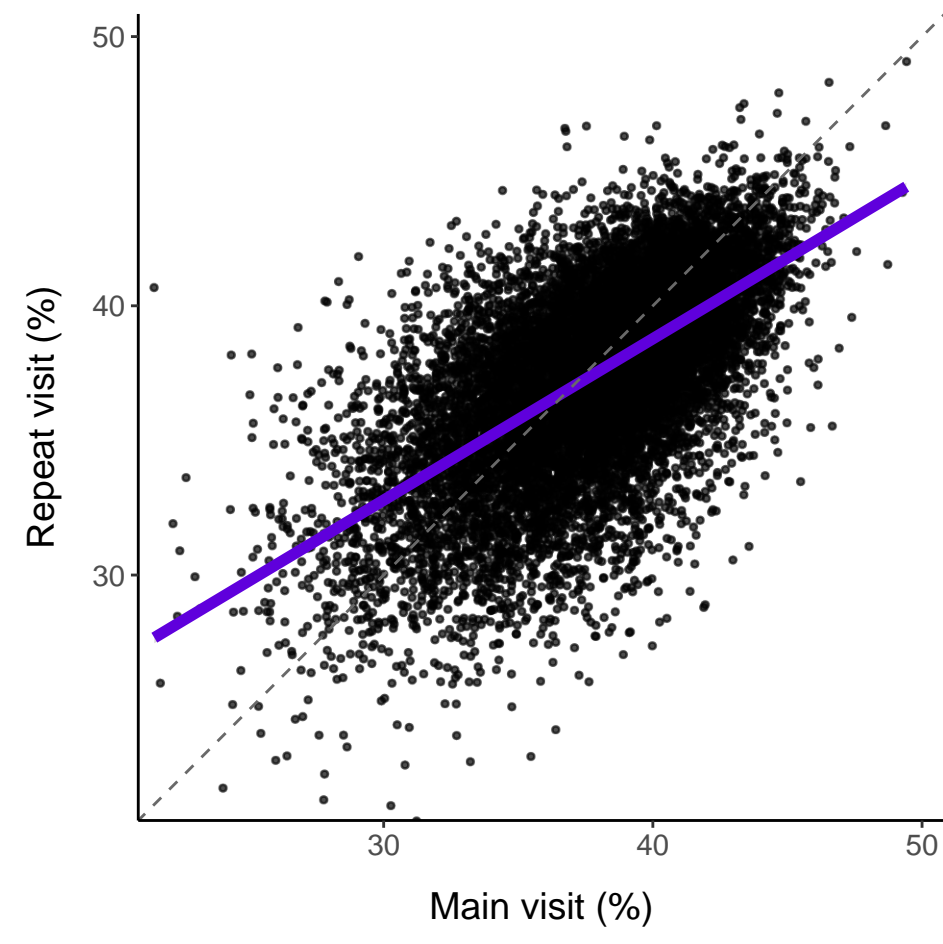R: 0.59
y = 0.10 + 0.59x

Fatty acid ratios

Omega_3_pct
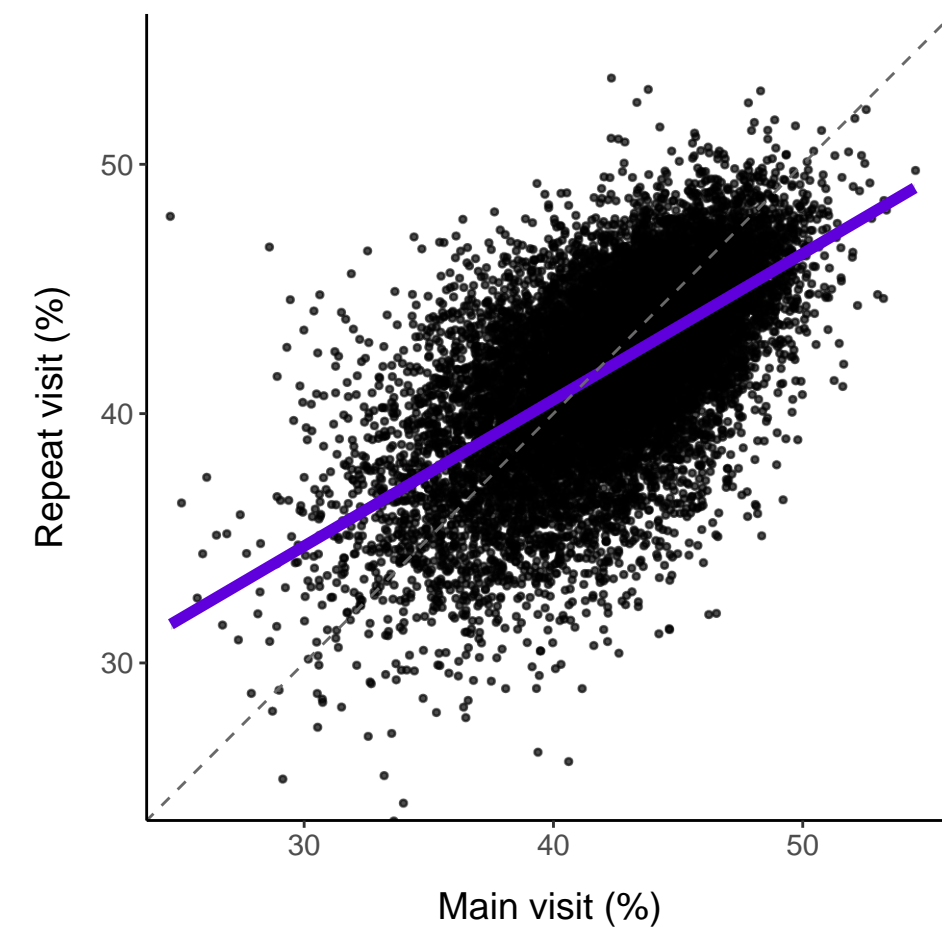R: 0.59
y = 1.86 + 0.57x

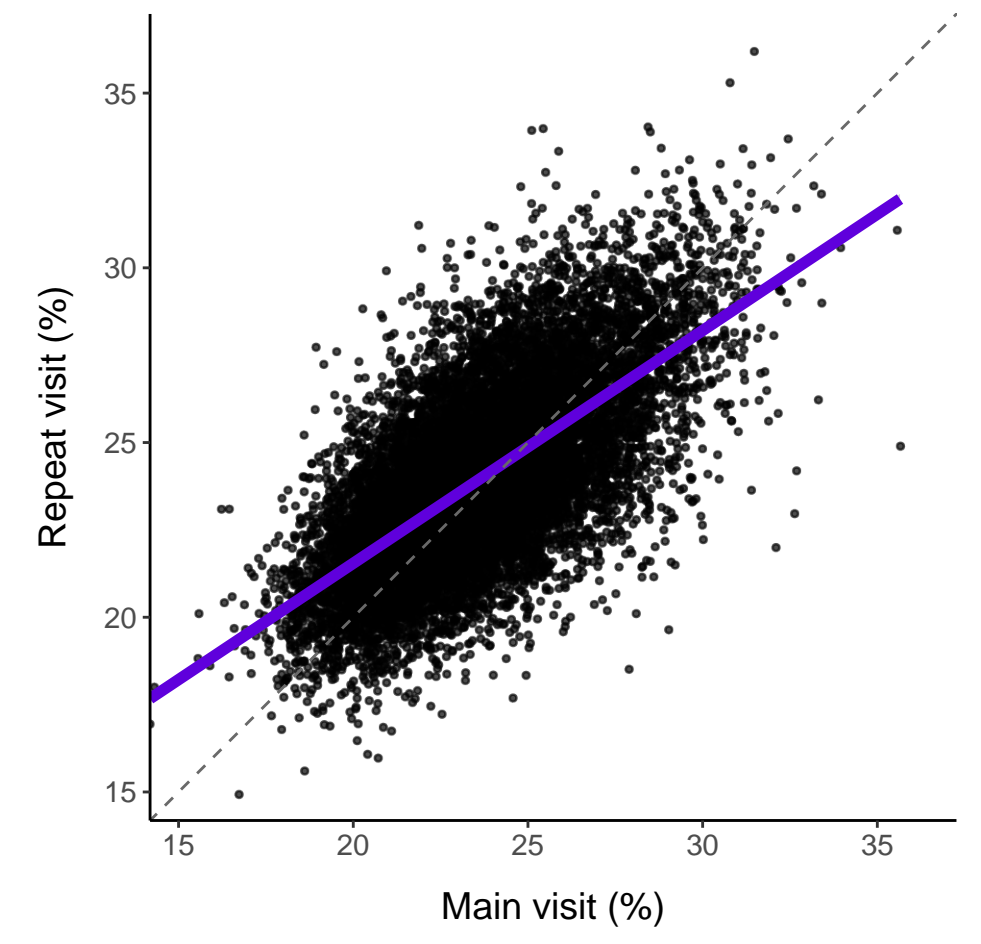**Omega_6_pct**
R: 0.63
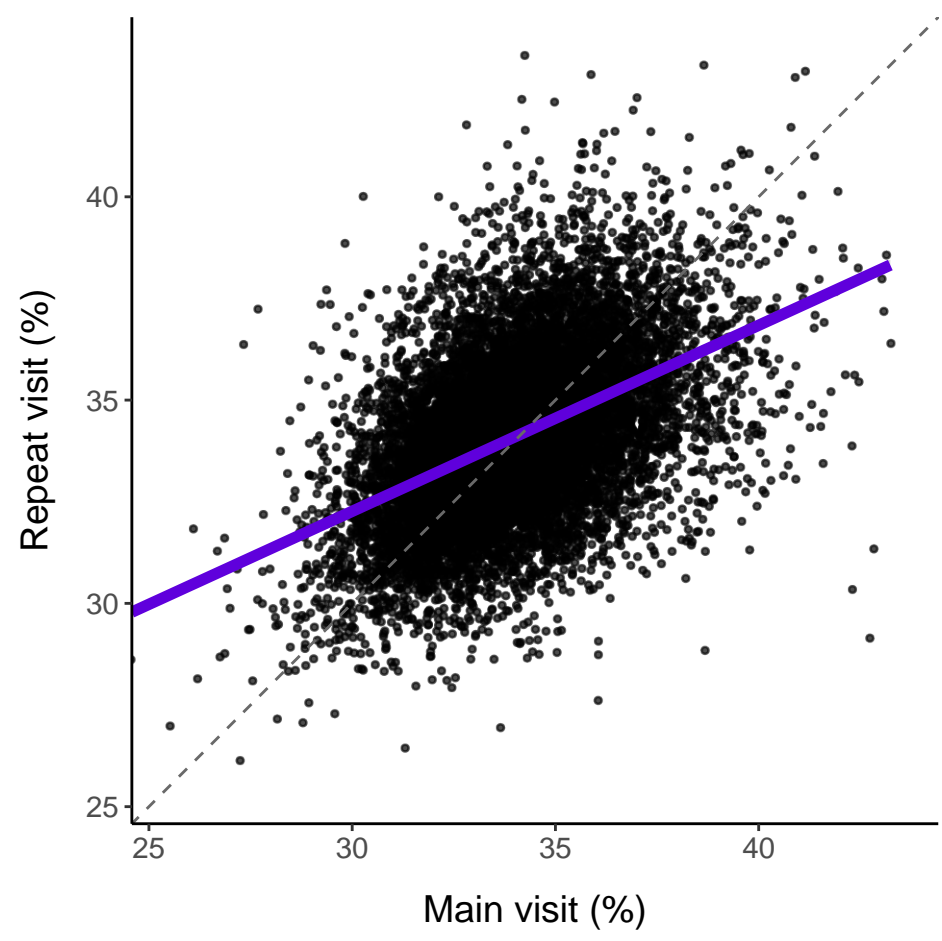y = 14.79 + 0.60x

PUFA_pct
R: 0.61
y = 17.09 + 0.59x
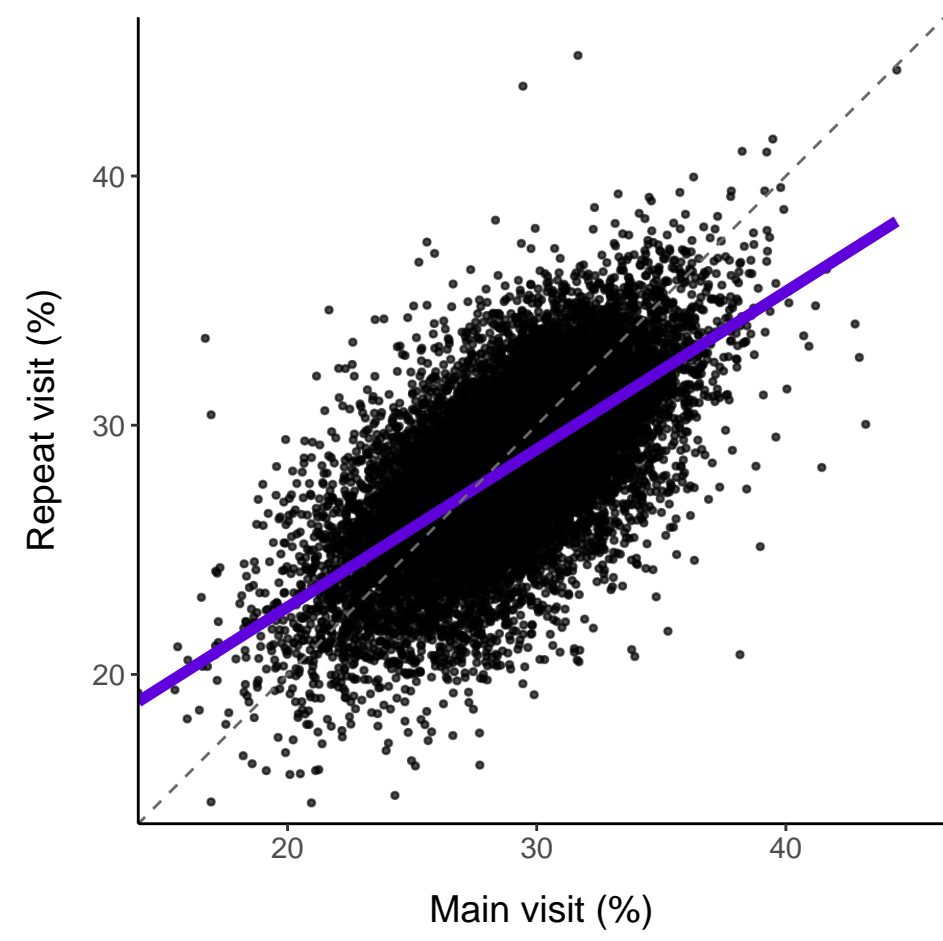
MUFA_pct
R: 0.67
y = 8.22 + 0.67x
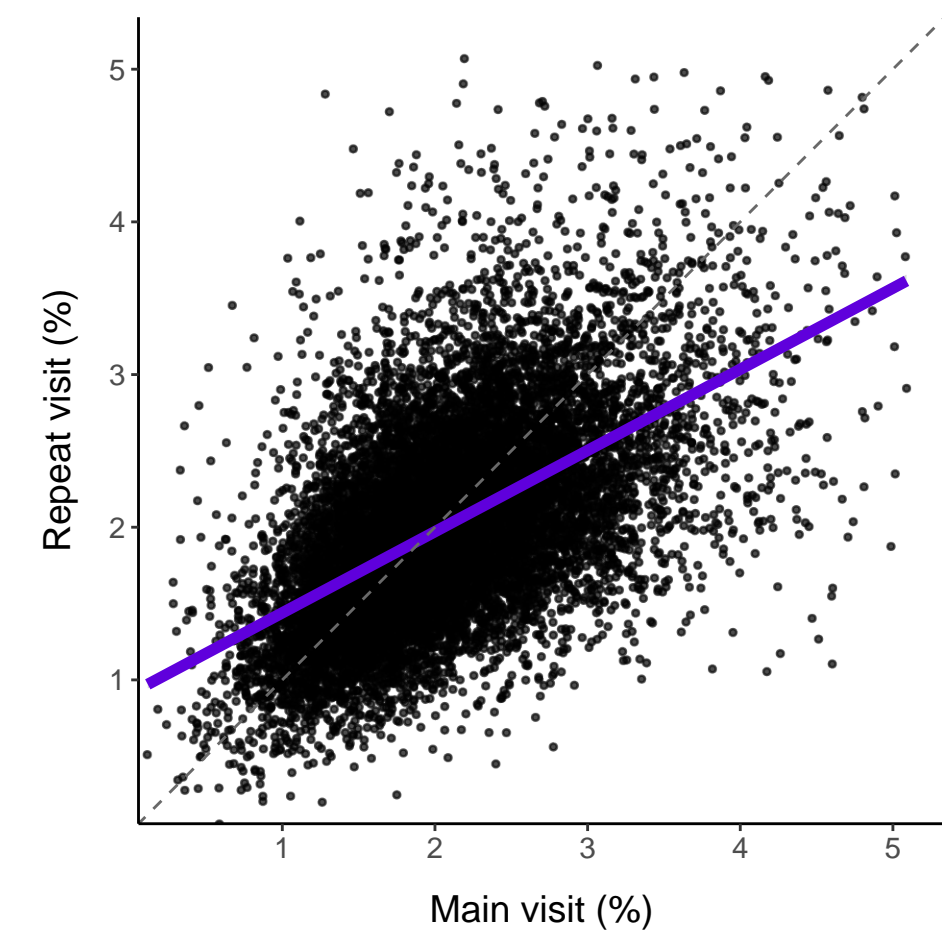
SFA_pct
R: 0.47
y = 18.54 + 0.46x
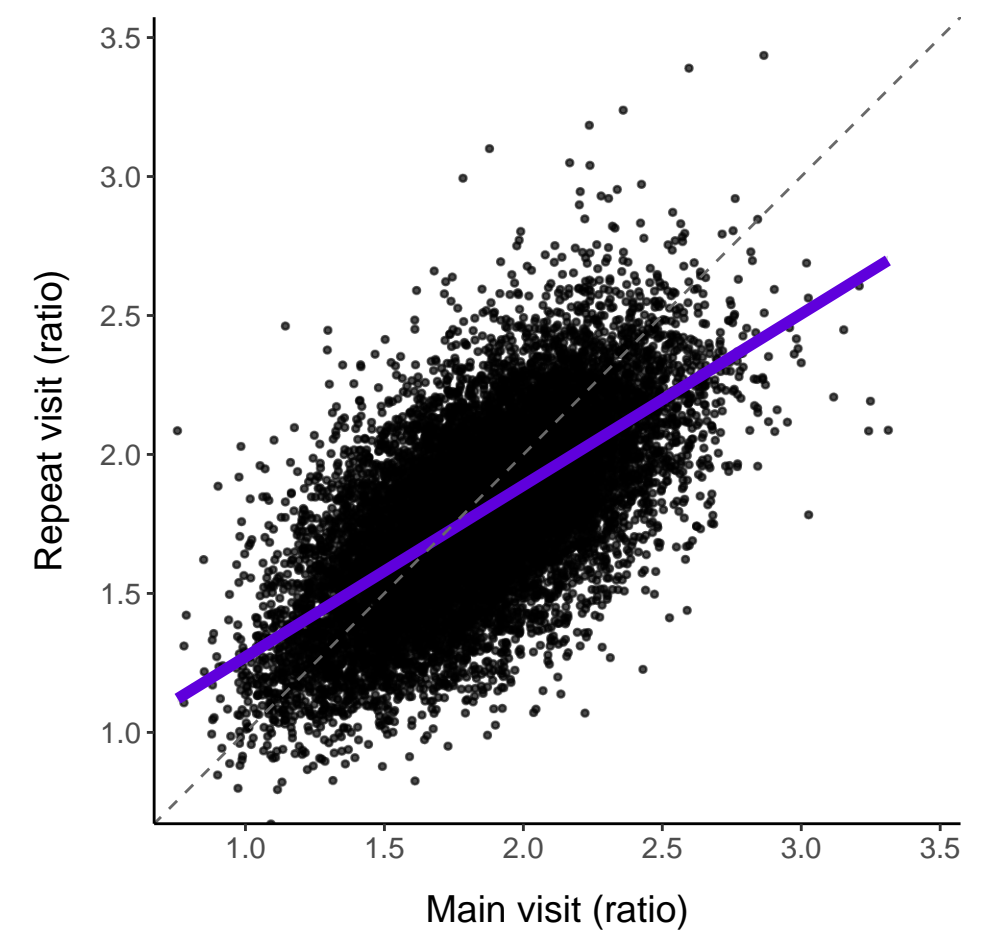
LA_pct
R: 0.65
y = 10.04 + 0.63x

DHA_pct
R: 0.55
y = 0.91 + 0.53x

PUFA_by_MUFA
R: 0.65
y = 0.65 + 0.62x

Omega_6_by_Omega_3
R: 0.62
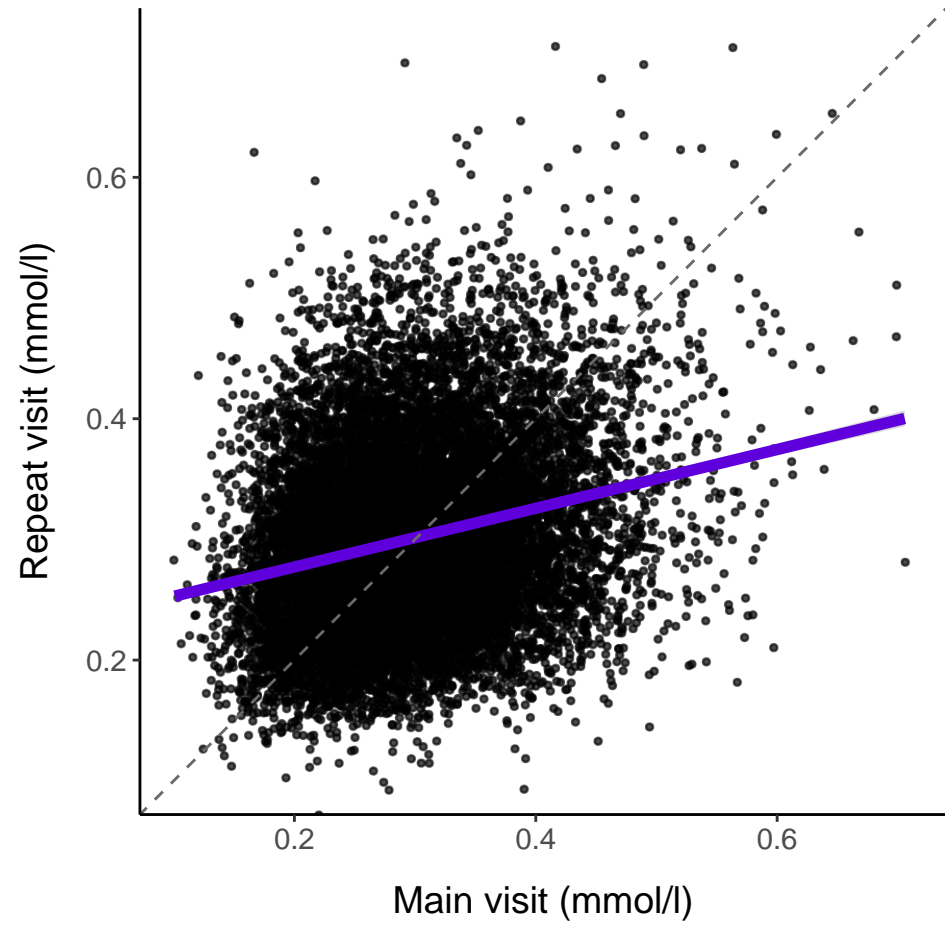y = 3.60 + 0.62x
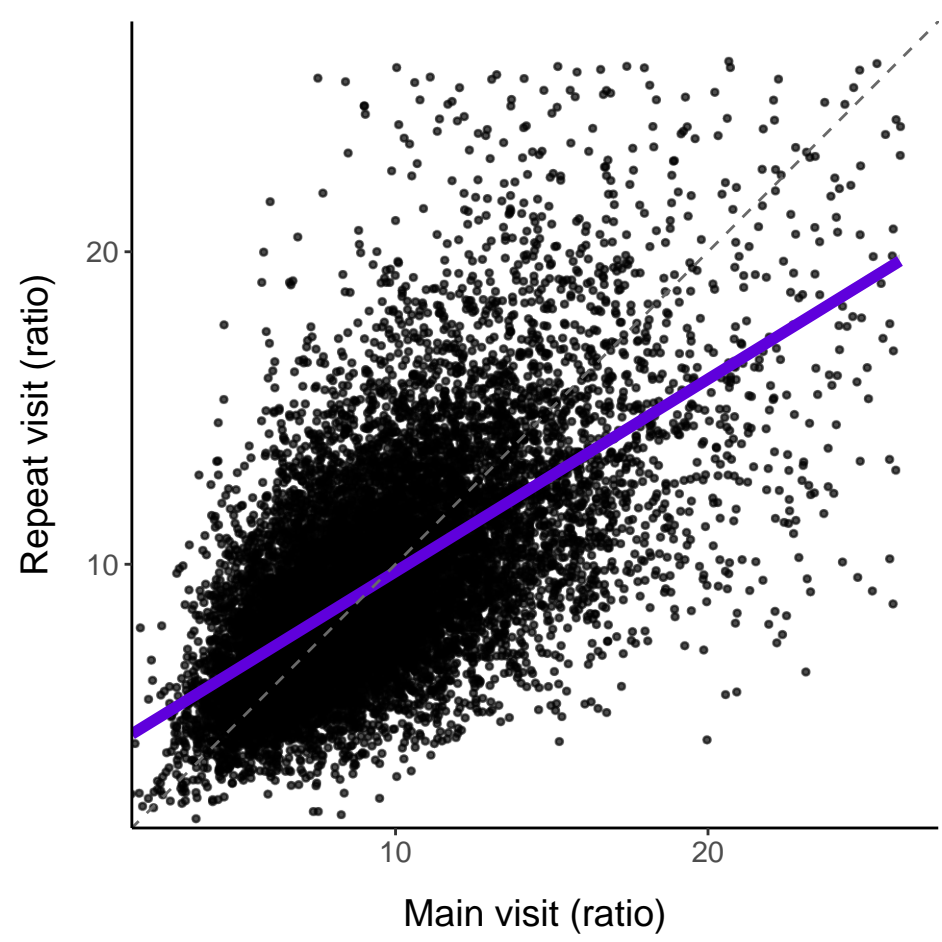
Amino acids

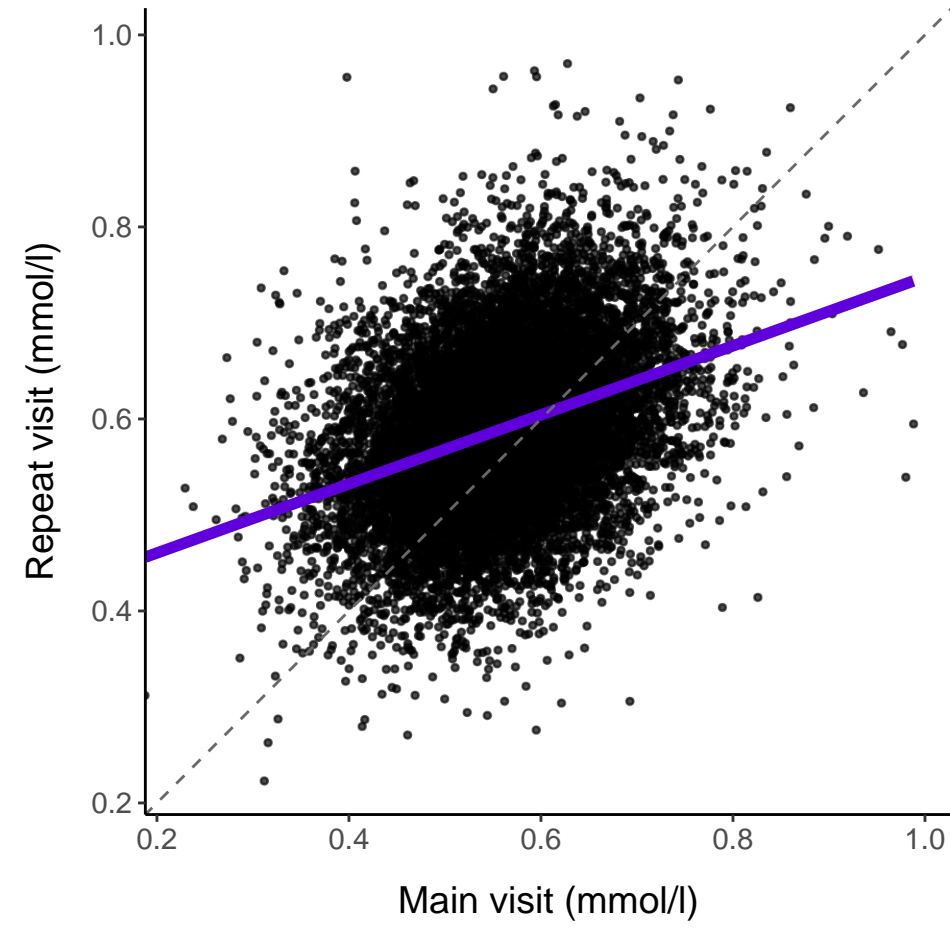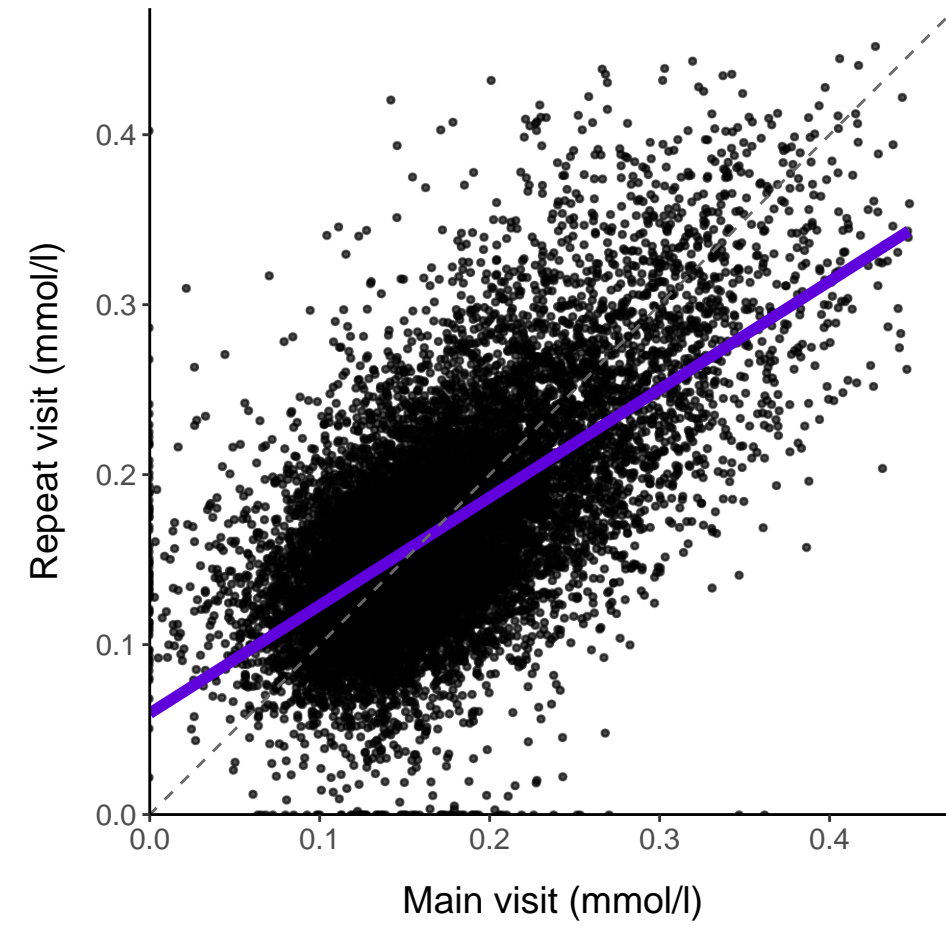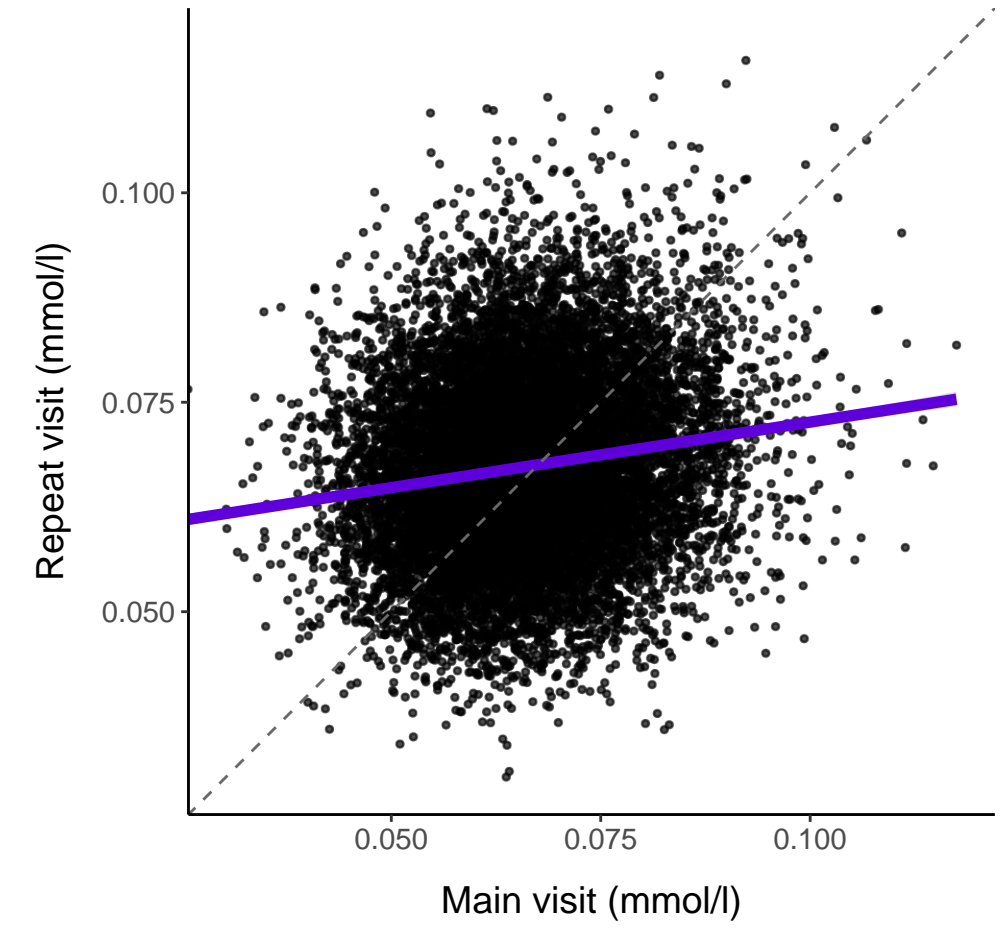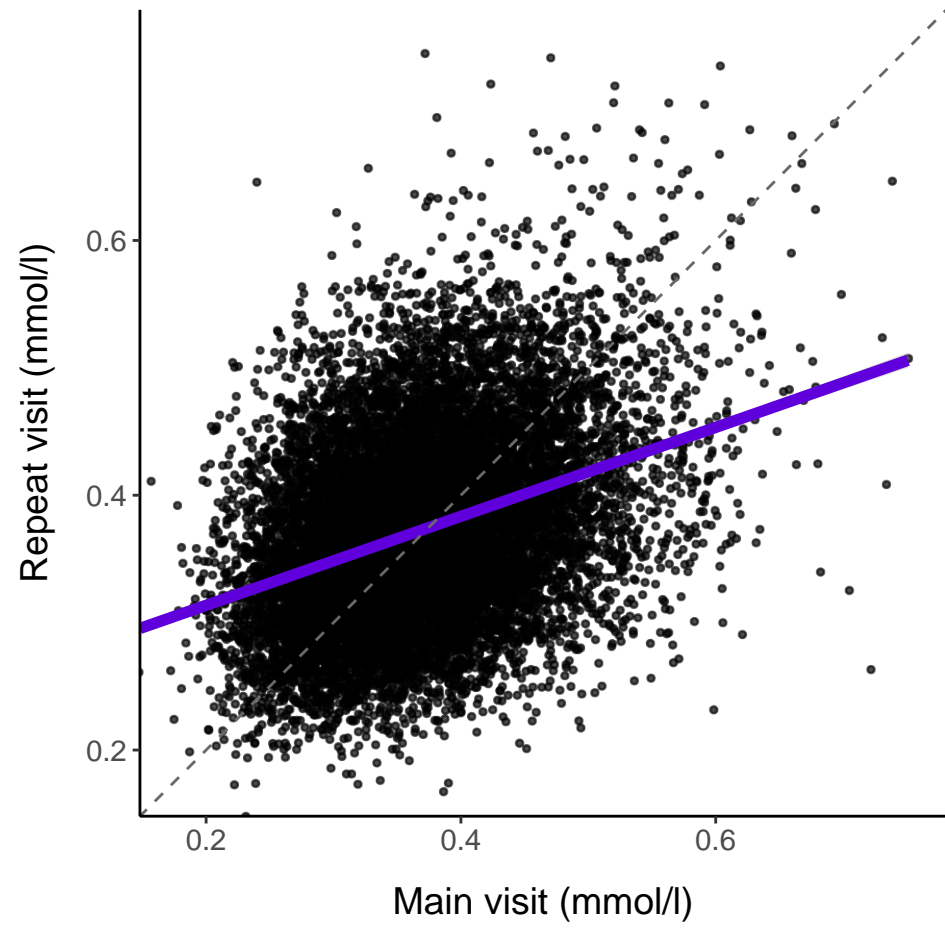**Branched−chain amino acids**
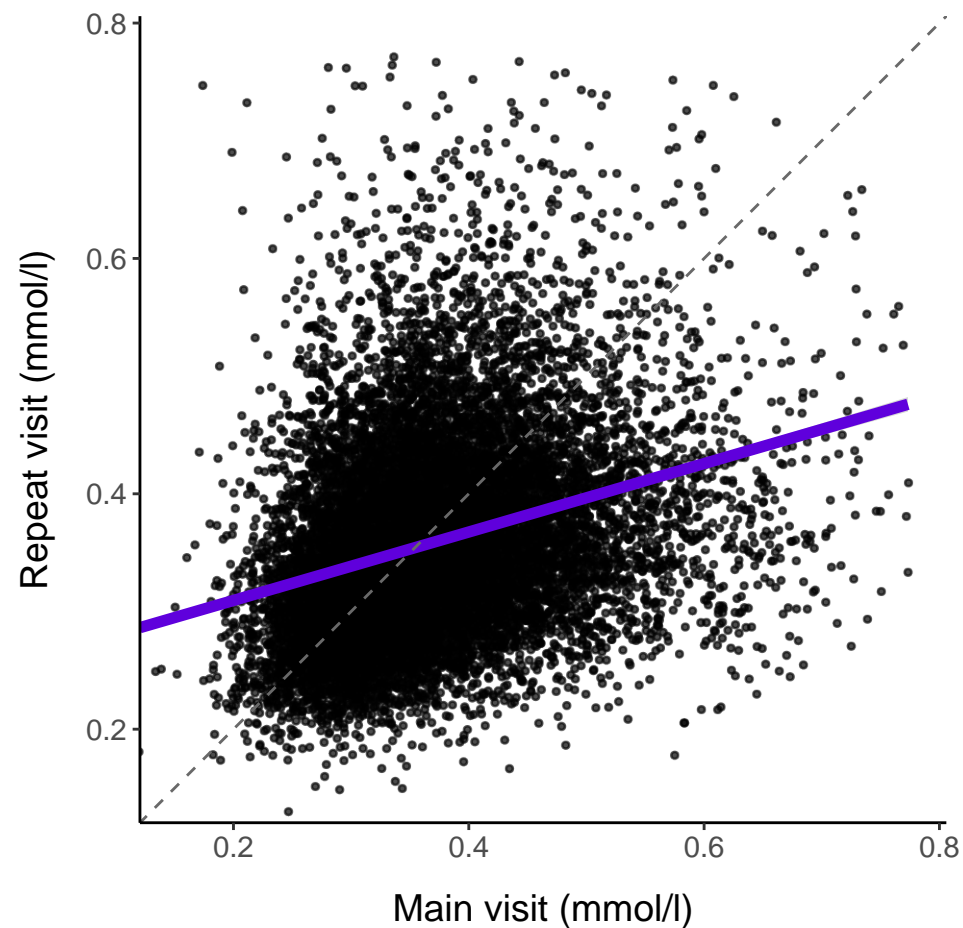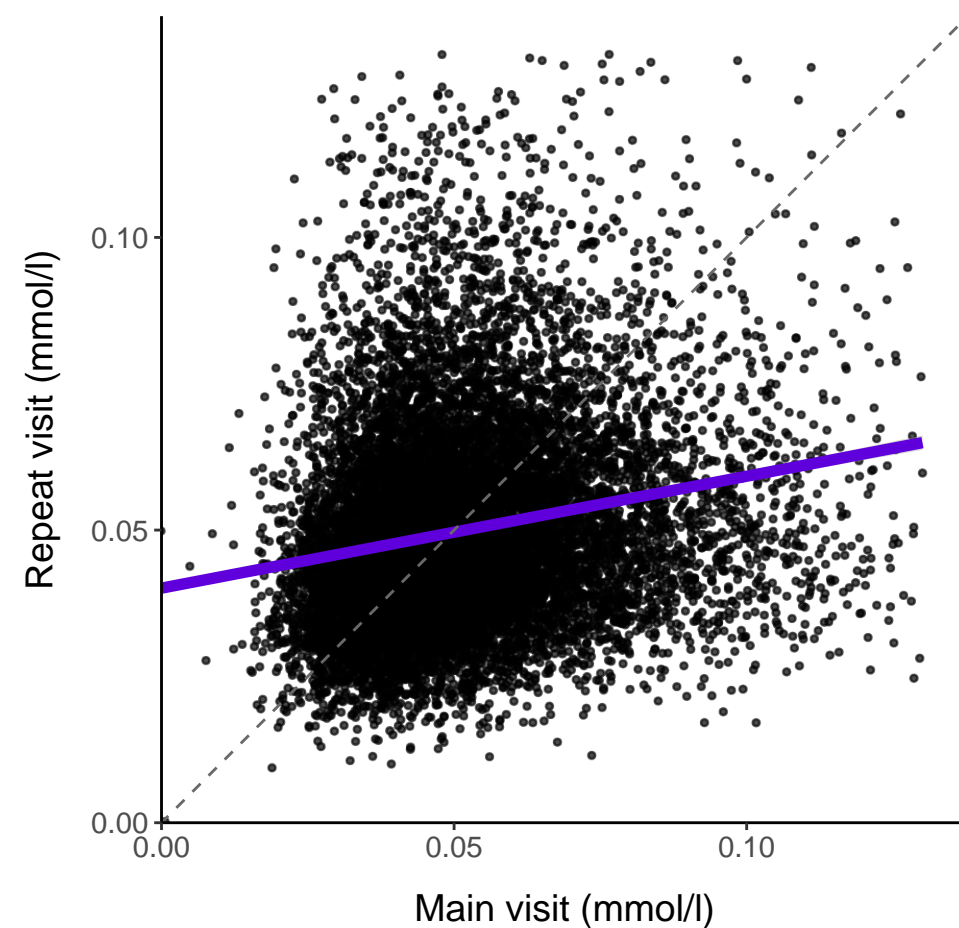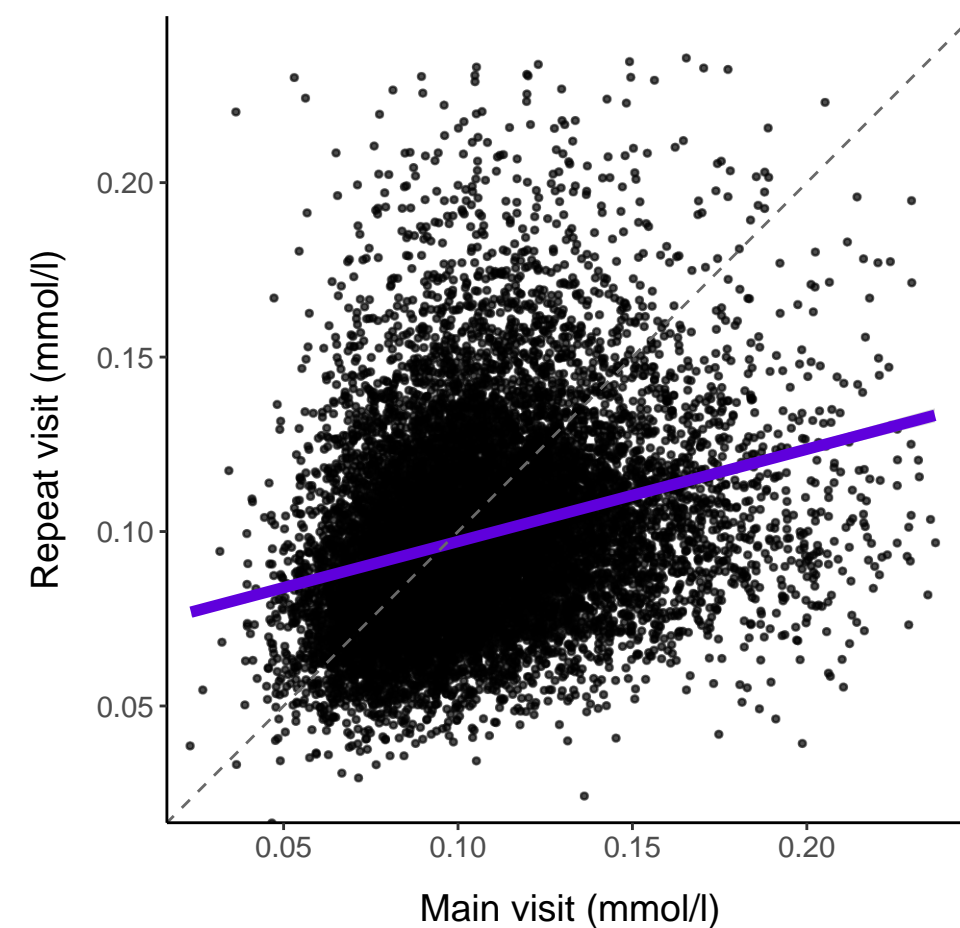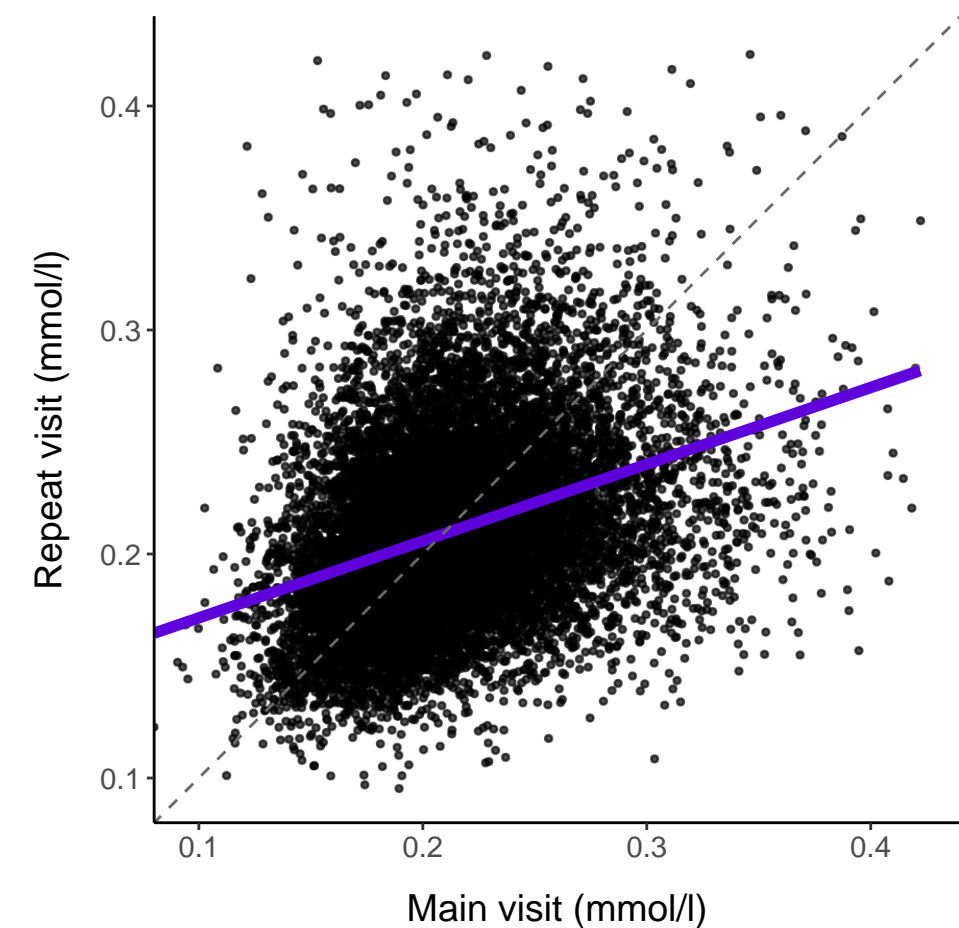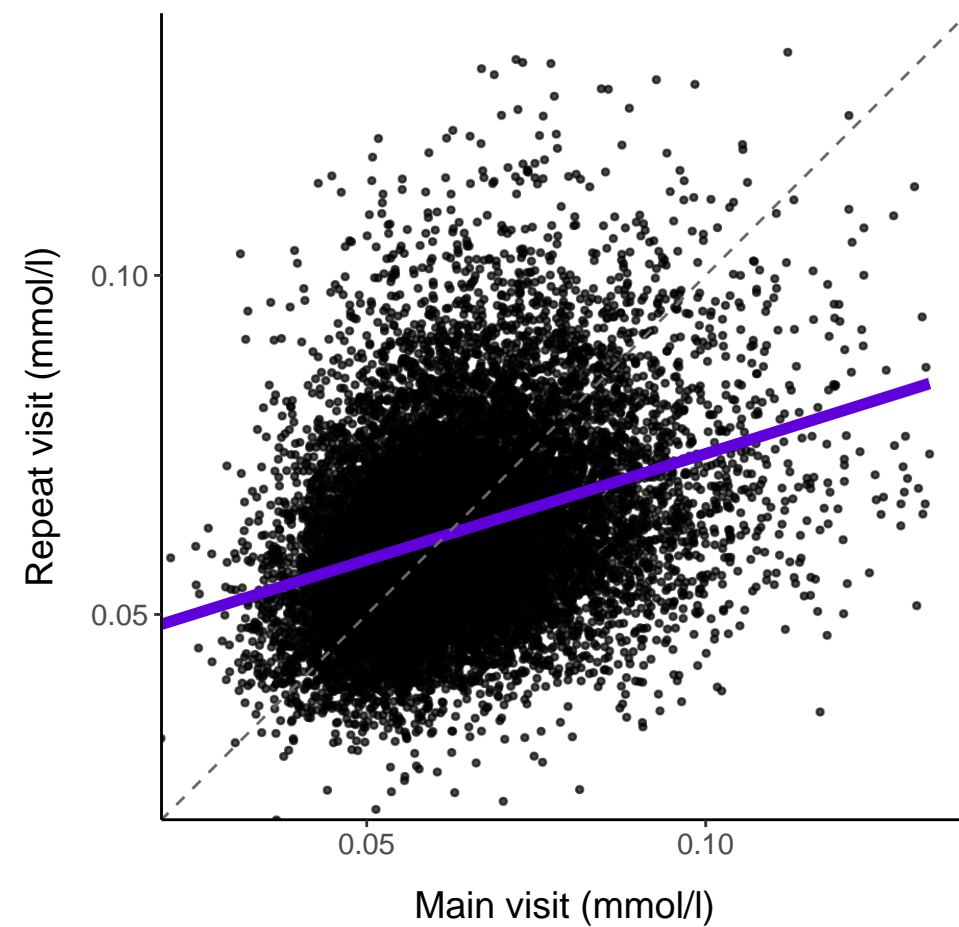
Aromatic amino acids
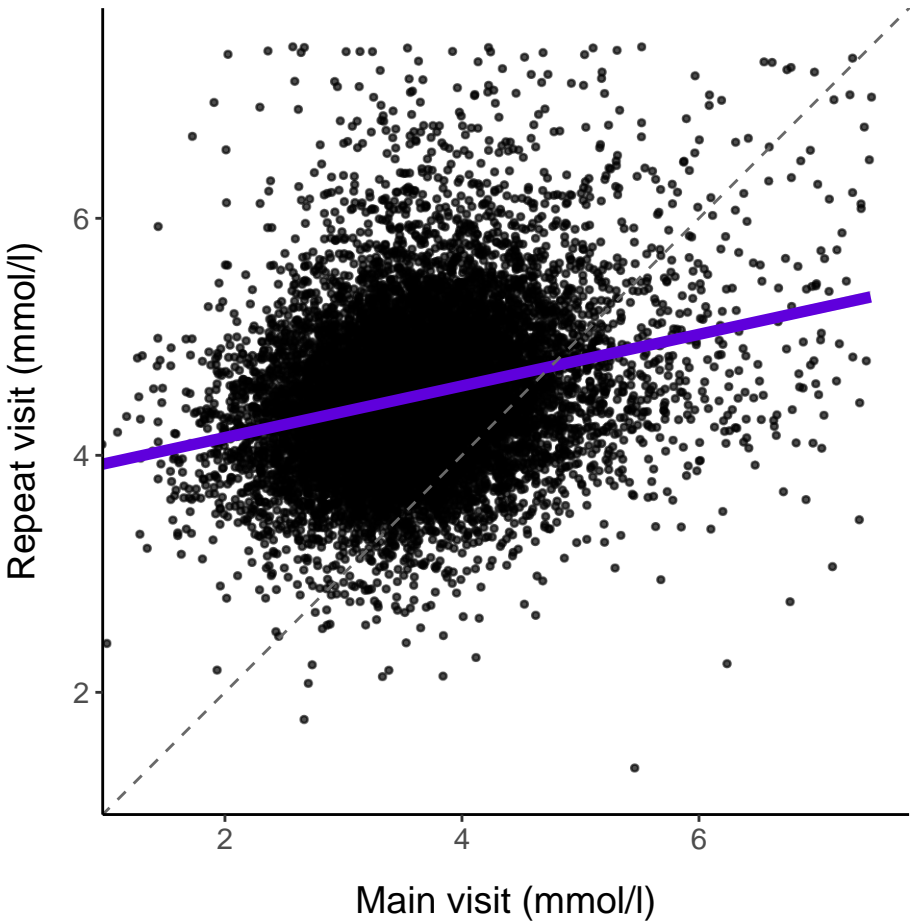
Phe

R: 0.21
y = 0.04 + 0.20x
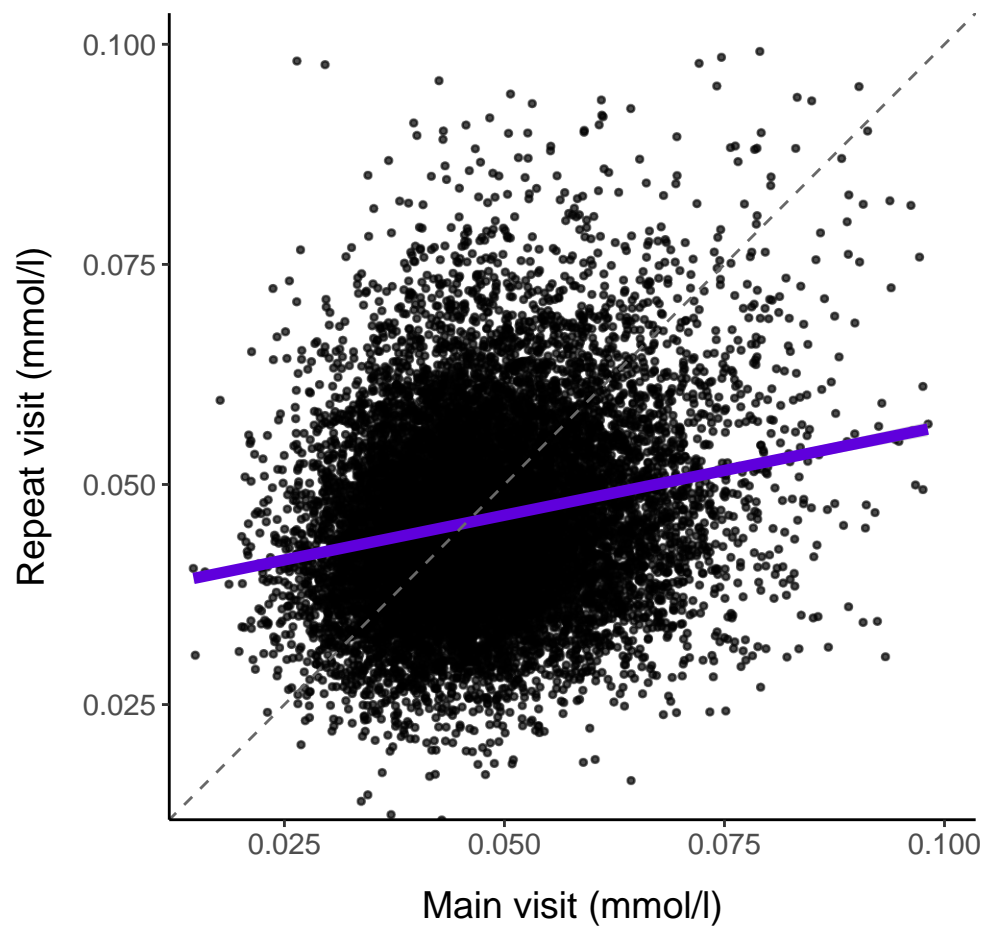
Tyr

R: 0.33
y = 0.04 + 0.31x
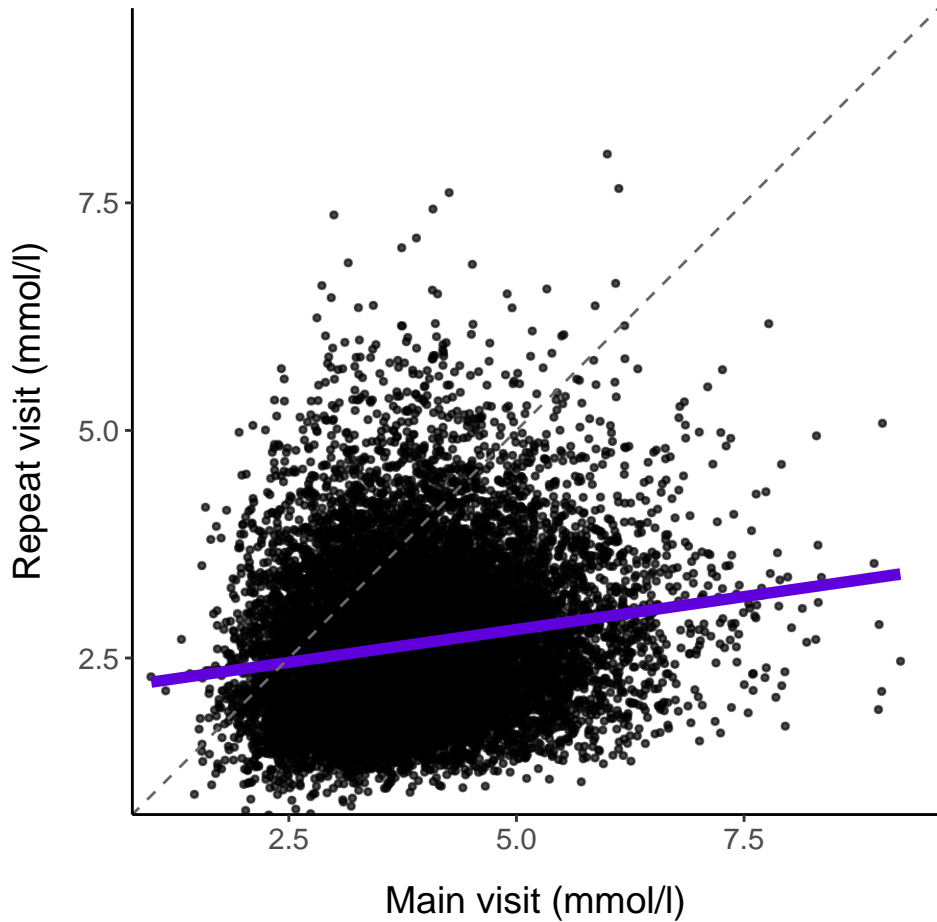
Glycolysis related metabolites

Glucose

R: 0.26
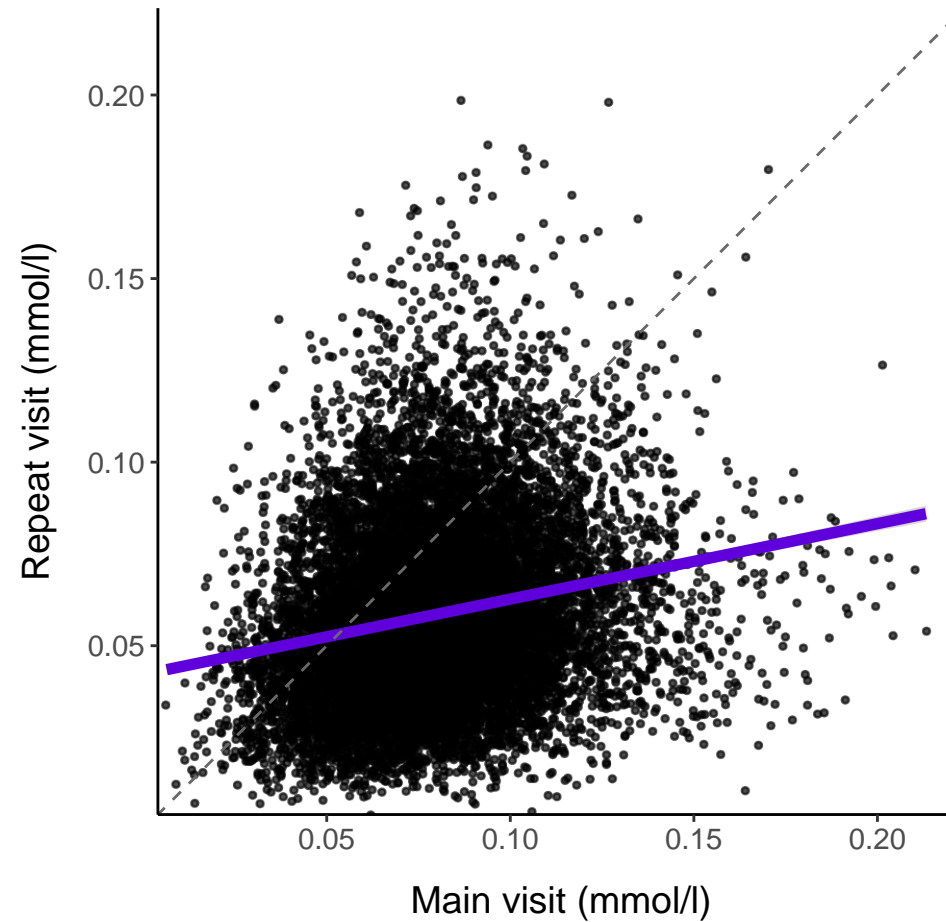y = 3.71 + 0.22x

Lactate
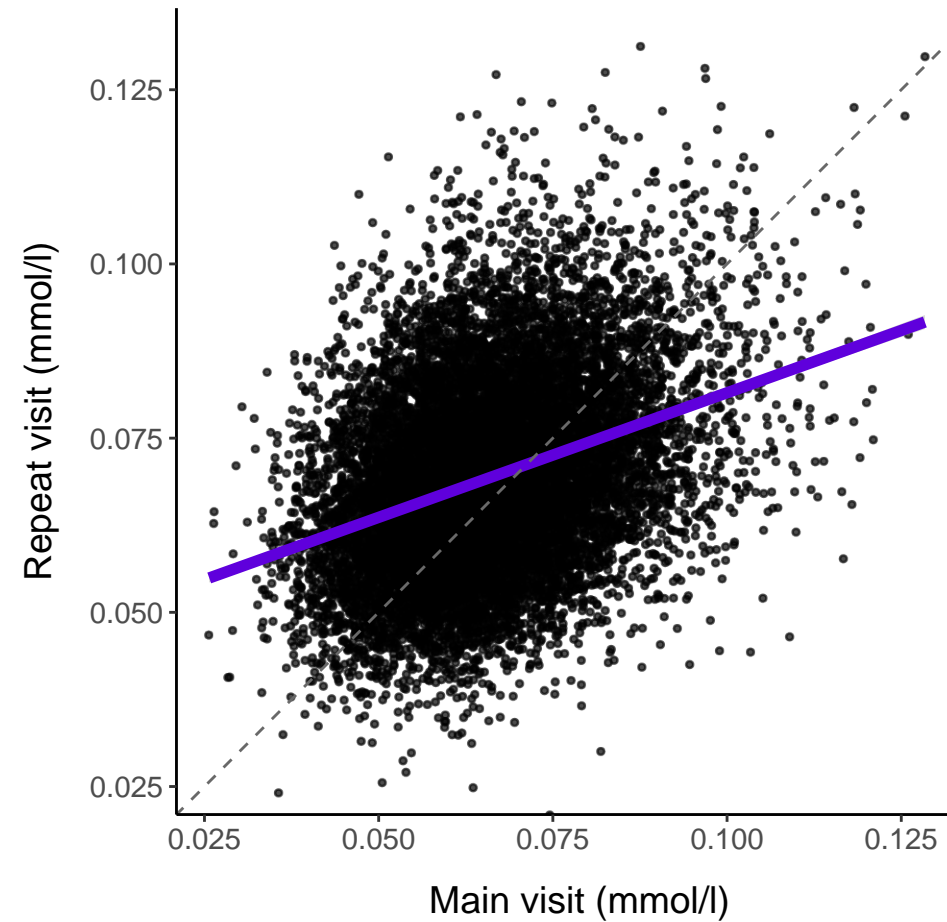
R: 0.17
y = 2.09 + 0.14x

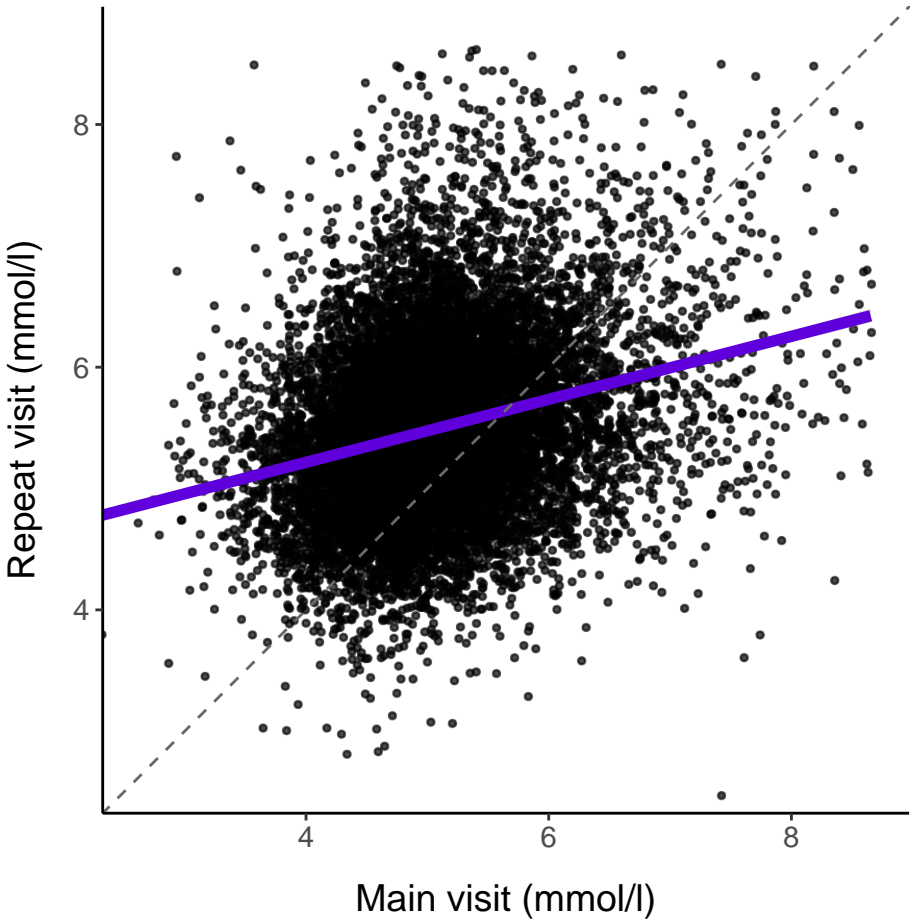## Pyruvate

R: 0.2
y = 0.04 + 0.21x

Citrate

R: 0.35
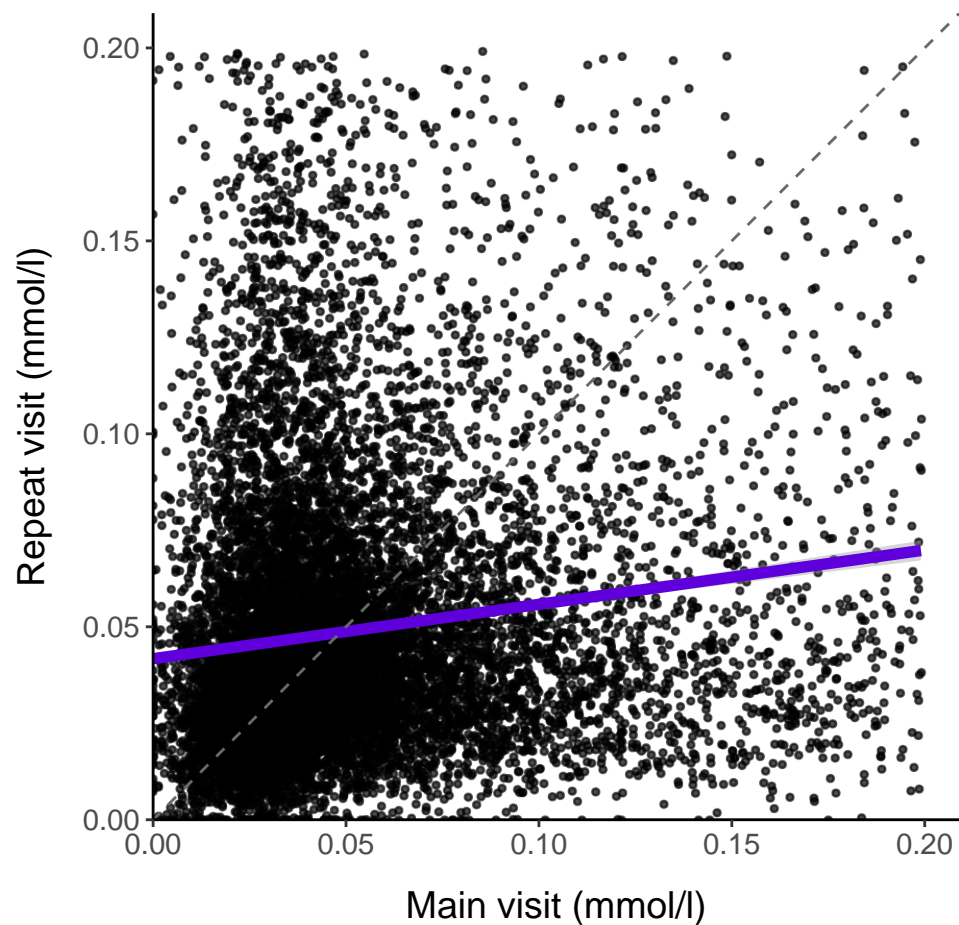y = 0.05 + 0.36x

Glucose_Lactate
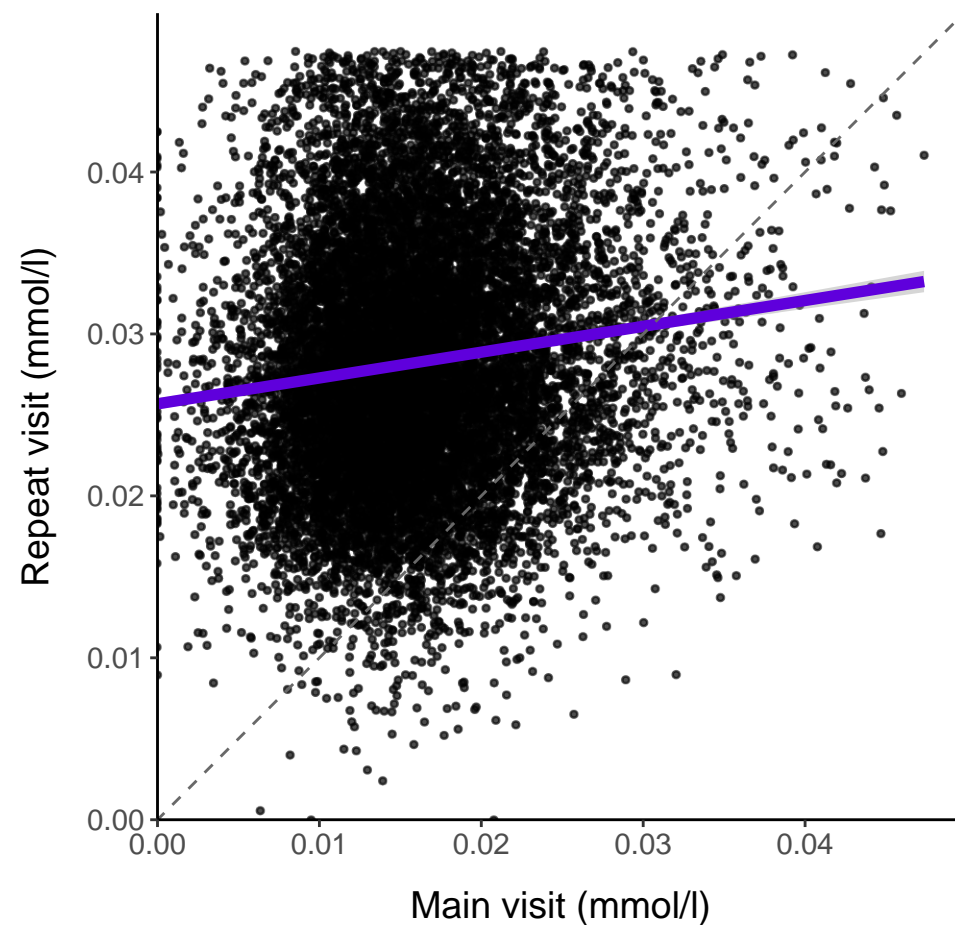
R: 0.26
y = 4.18 + 0.26x

Ketone bodies
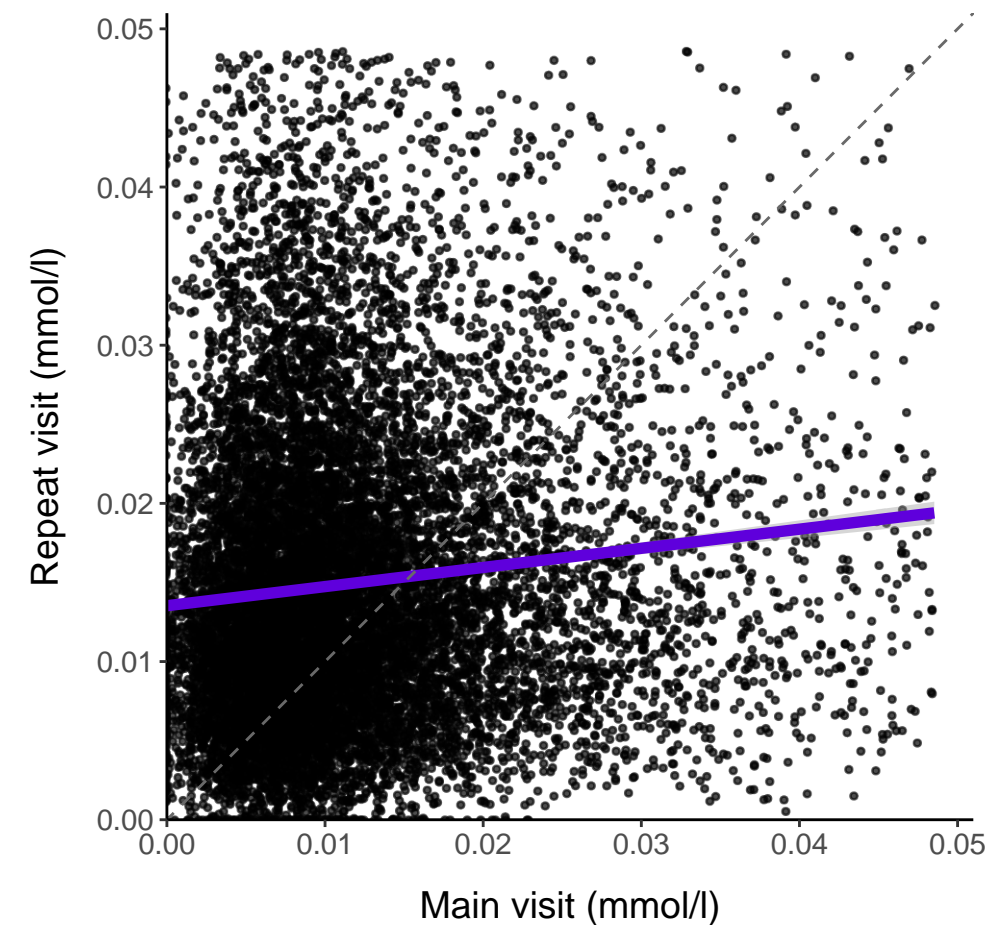
bOHbutyrate

R: 0.14
y = 0.04 + 0.14x
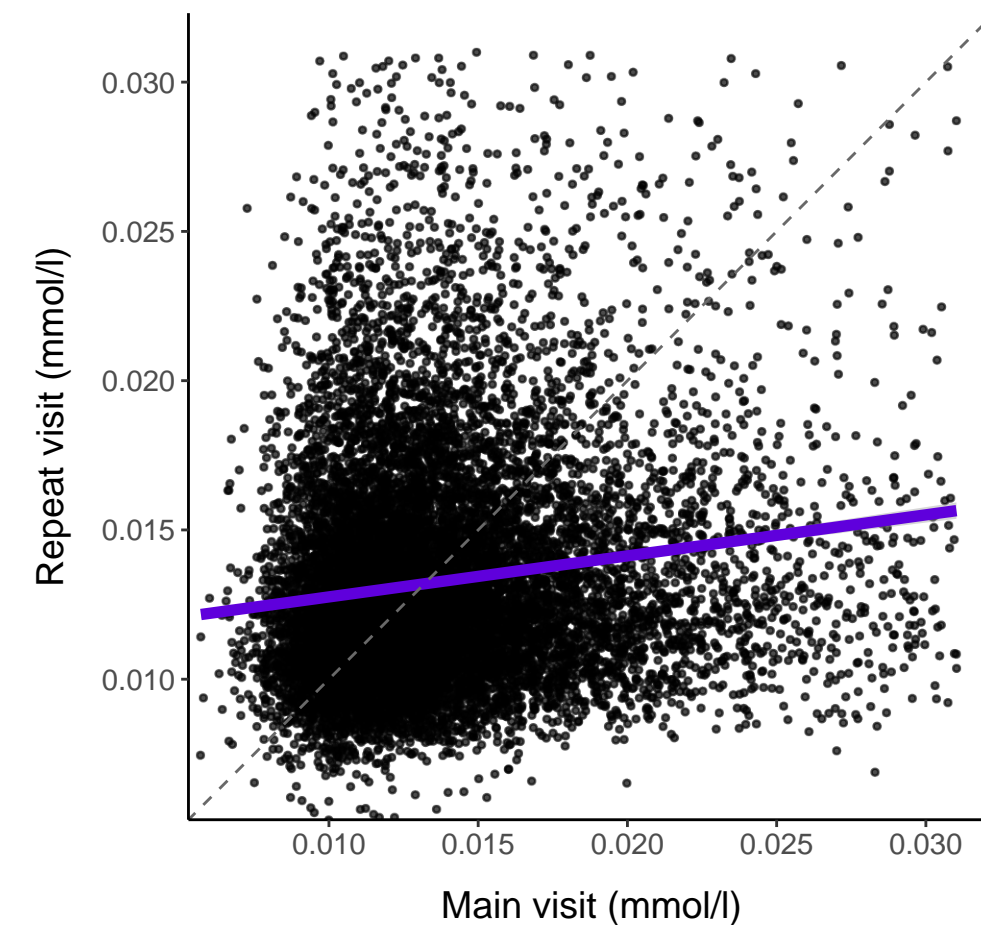
Acetate

R: 0.13
y = 0.03 + 0.16x

Acetoacetate

R: 0.11
y = 0.01 + 0.12x

Acetone

R: 0.14
y = 0.01 + 0.14x

Fluid balance

Creatinine

R: 0.66
y = 0.02 + 0.69x

Repeat visit (mmol/l)
Main visit (mmol/l)

Albumin

R: 0.33
y = 26.47 + 0.34x

Repeat visit (g/l)
Main visit (g/l)

Inflammation

GlycA

R: 0.55
y = 0.37 + 0.55x
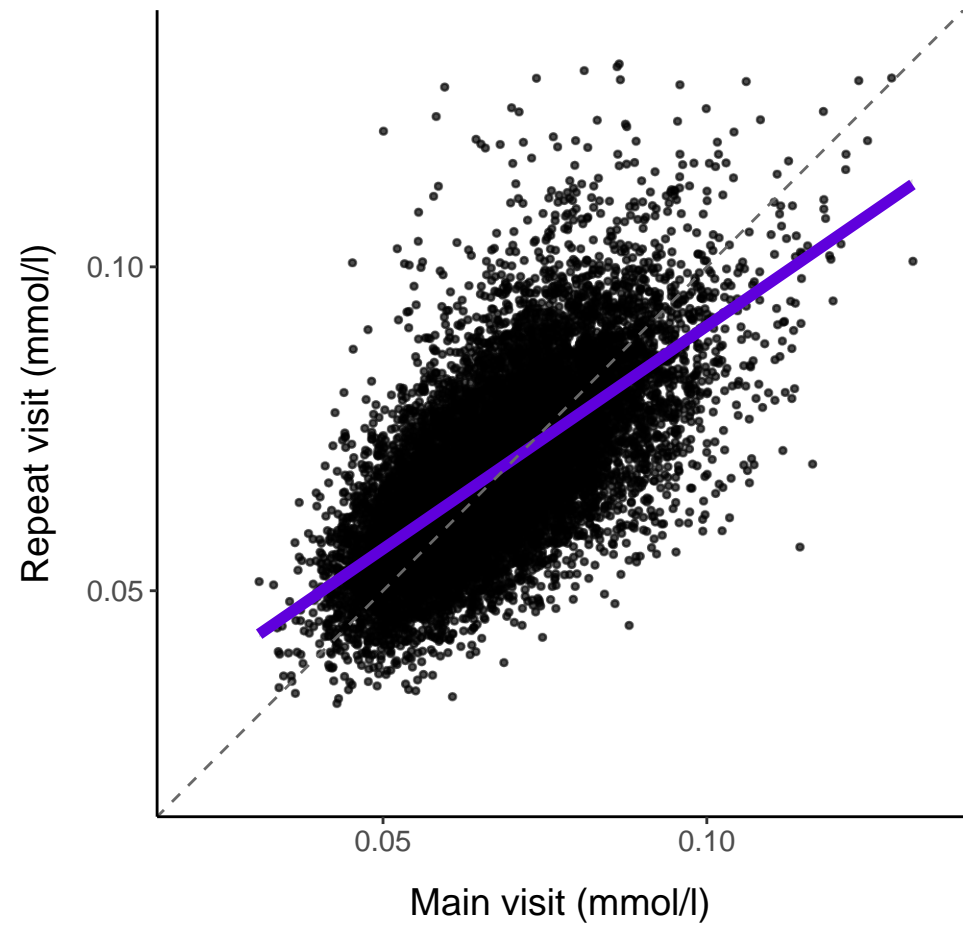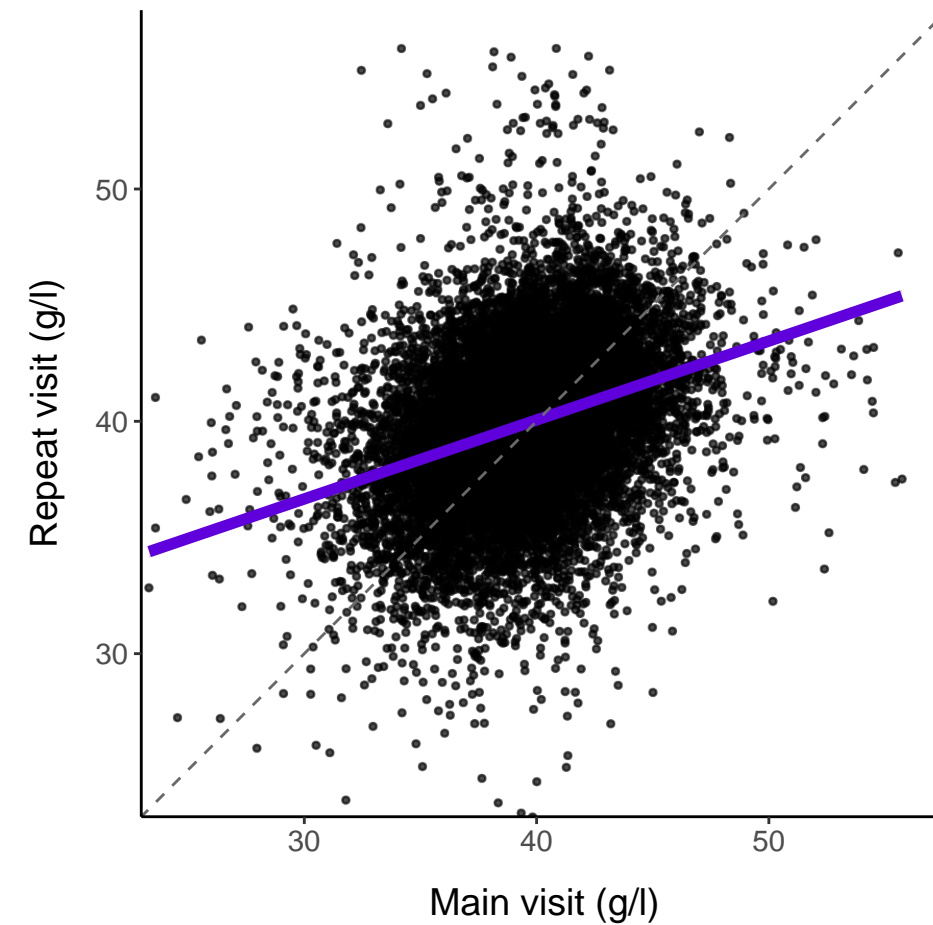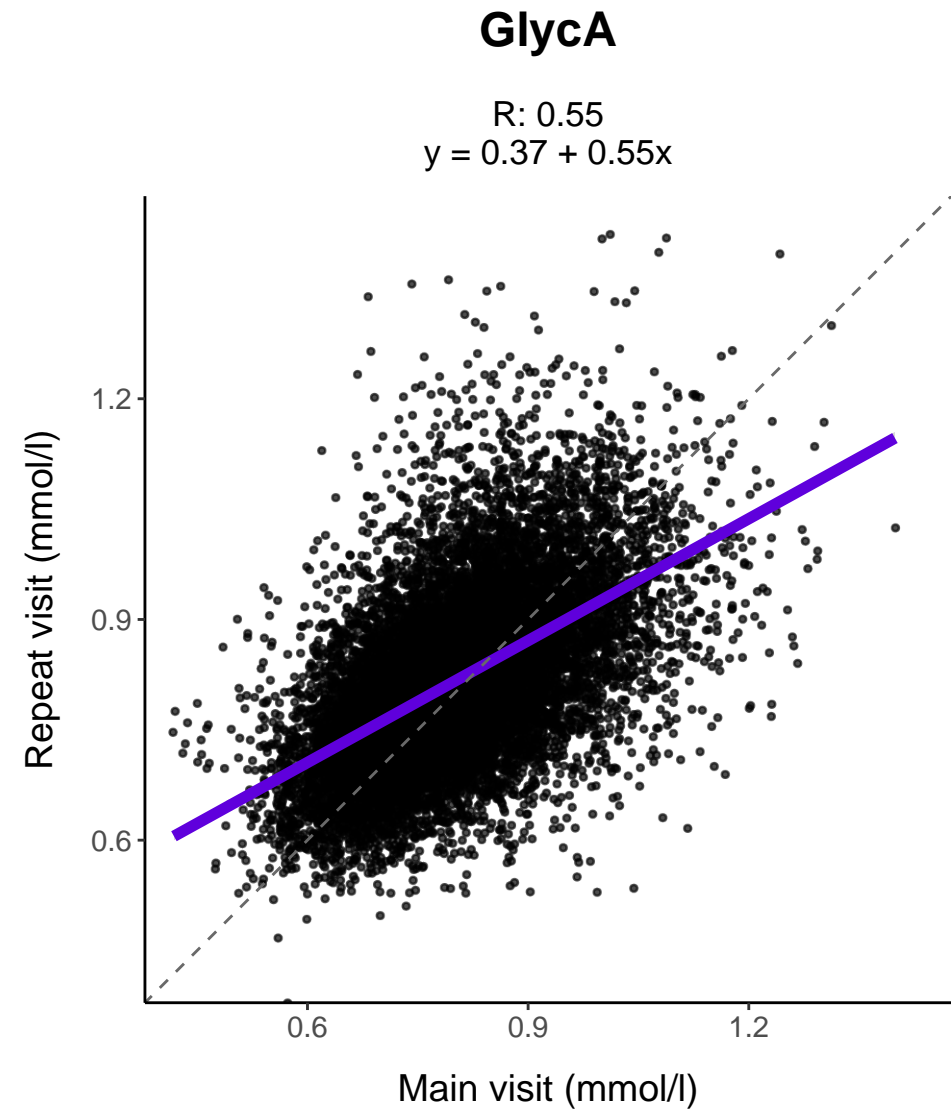
Chylomicrons and extremely large VLDL (particle diameters from 75 nm upwards)
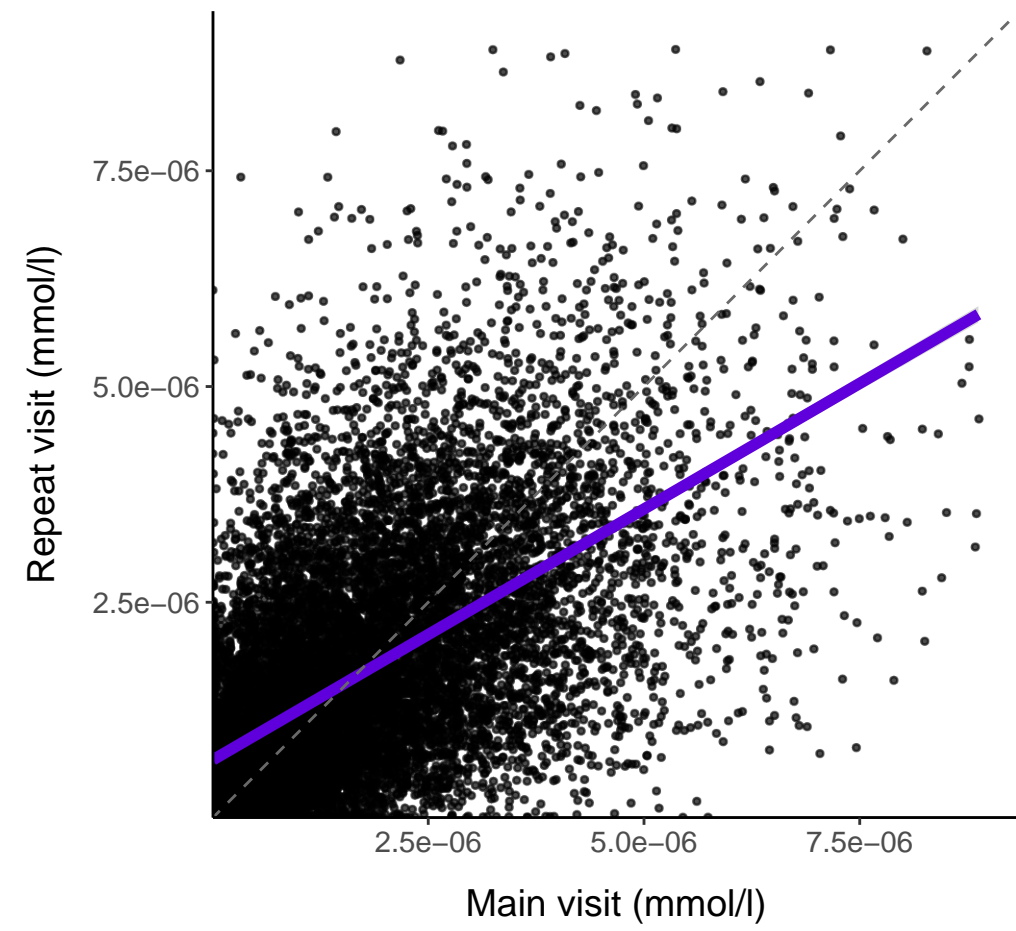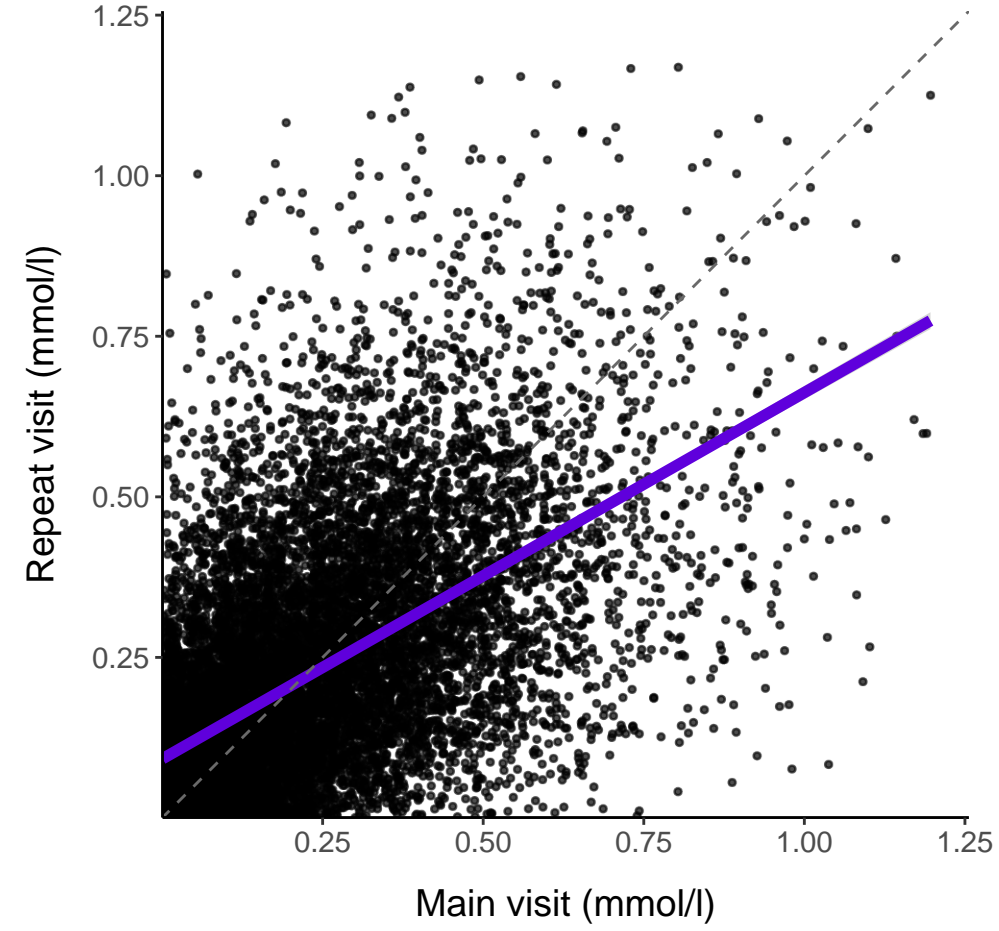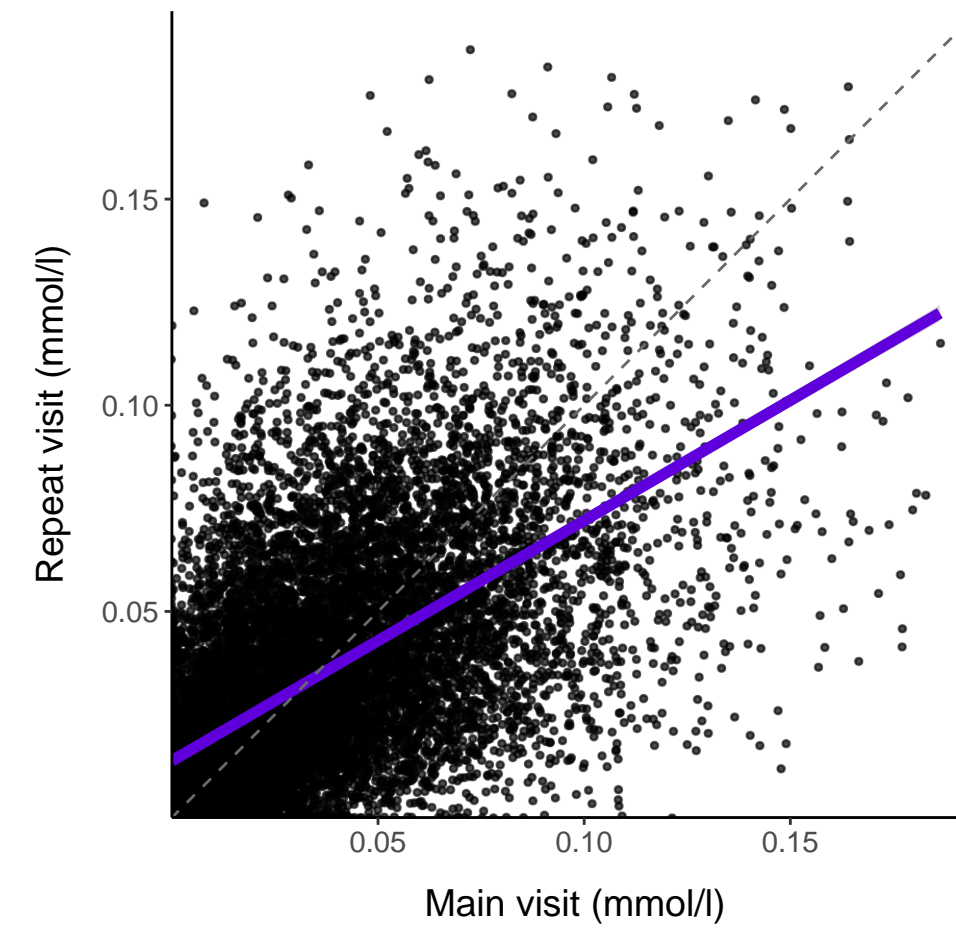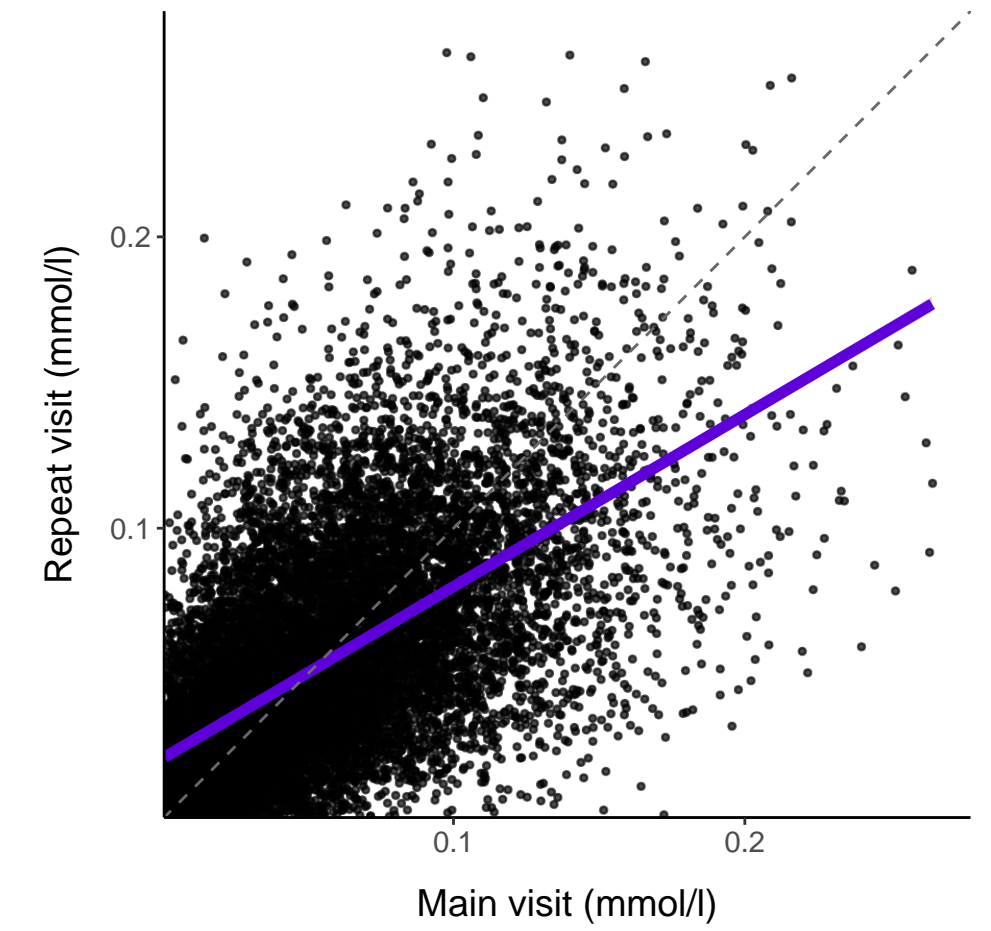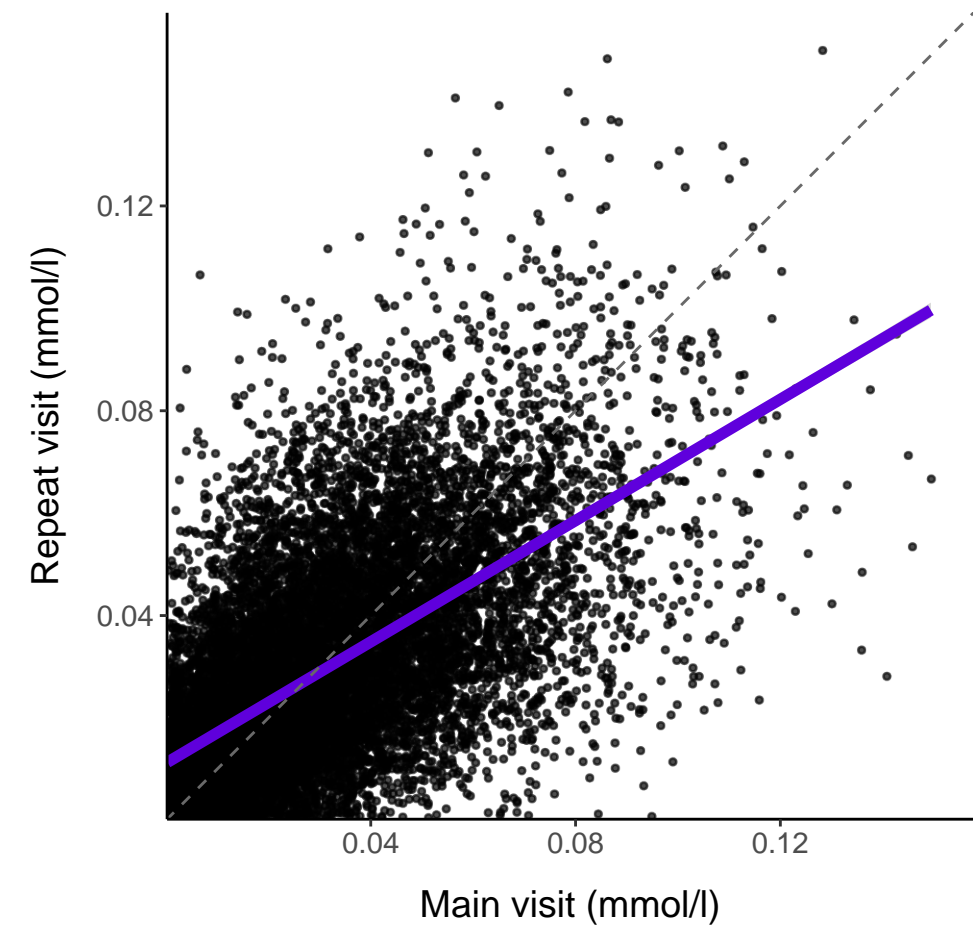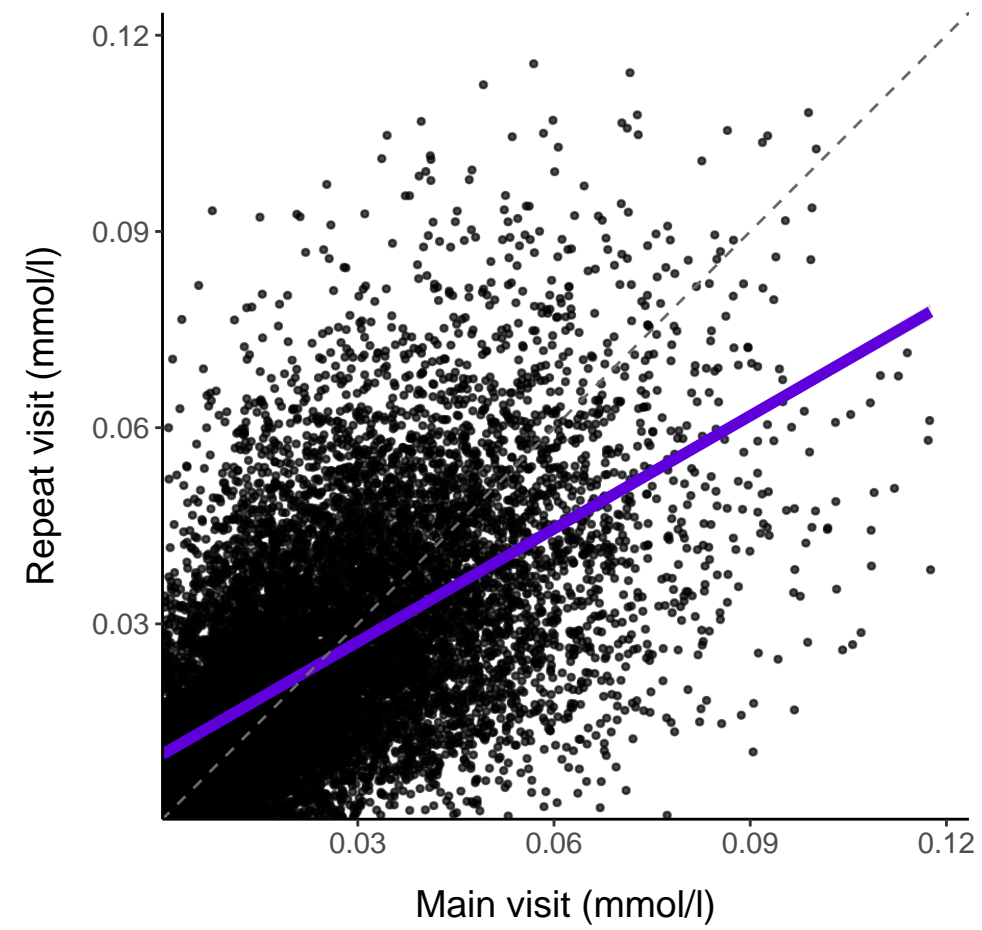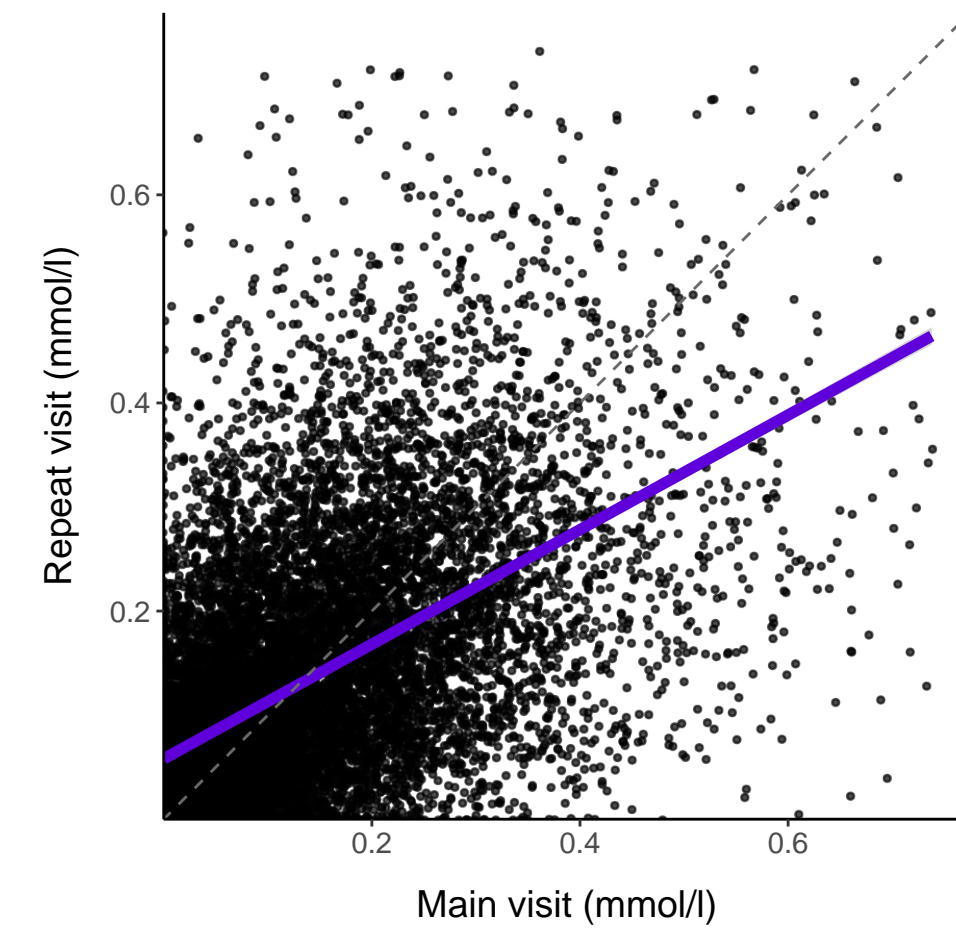
Very large VLDL (average diameter 64 nm)
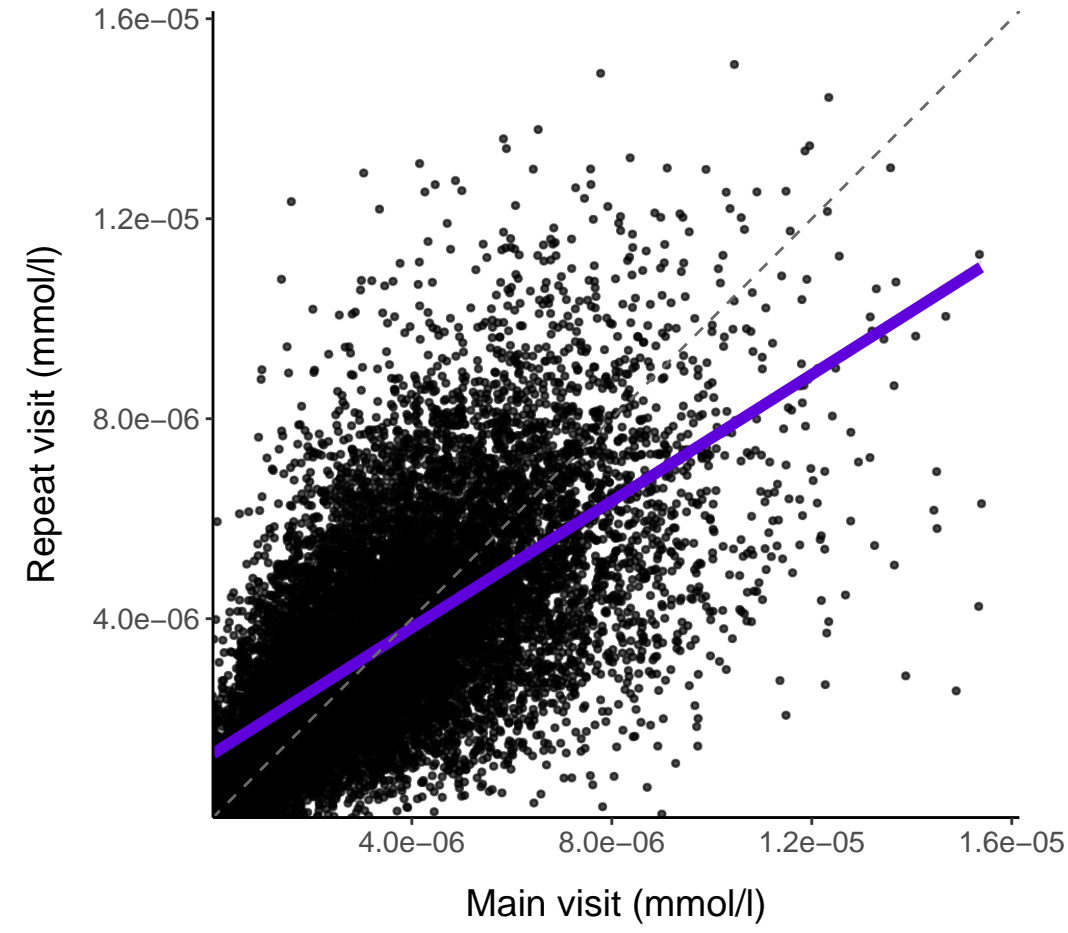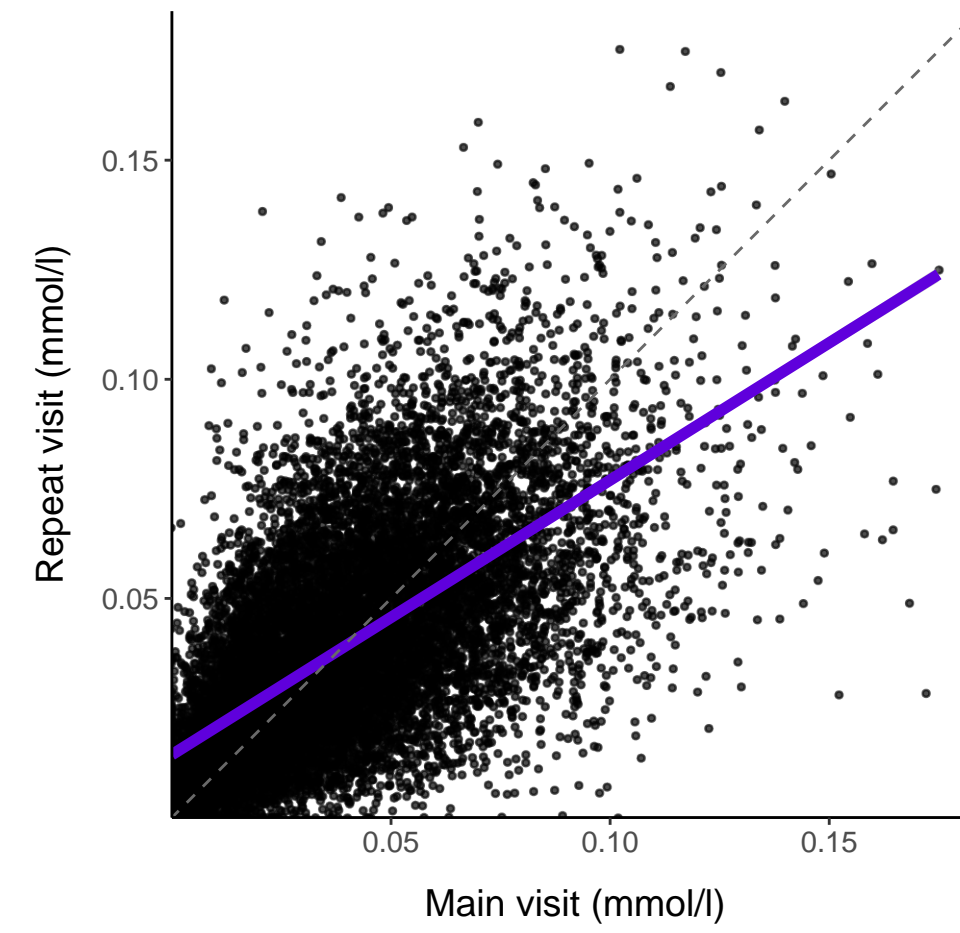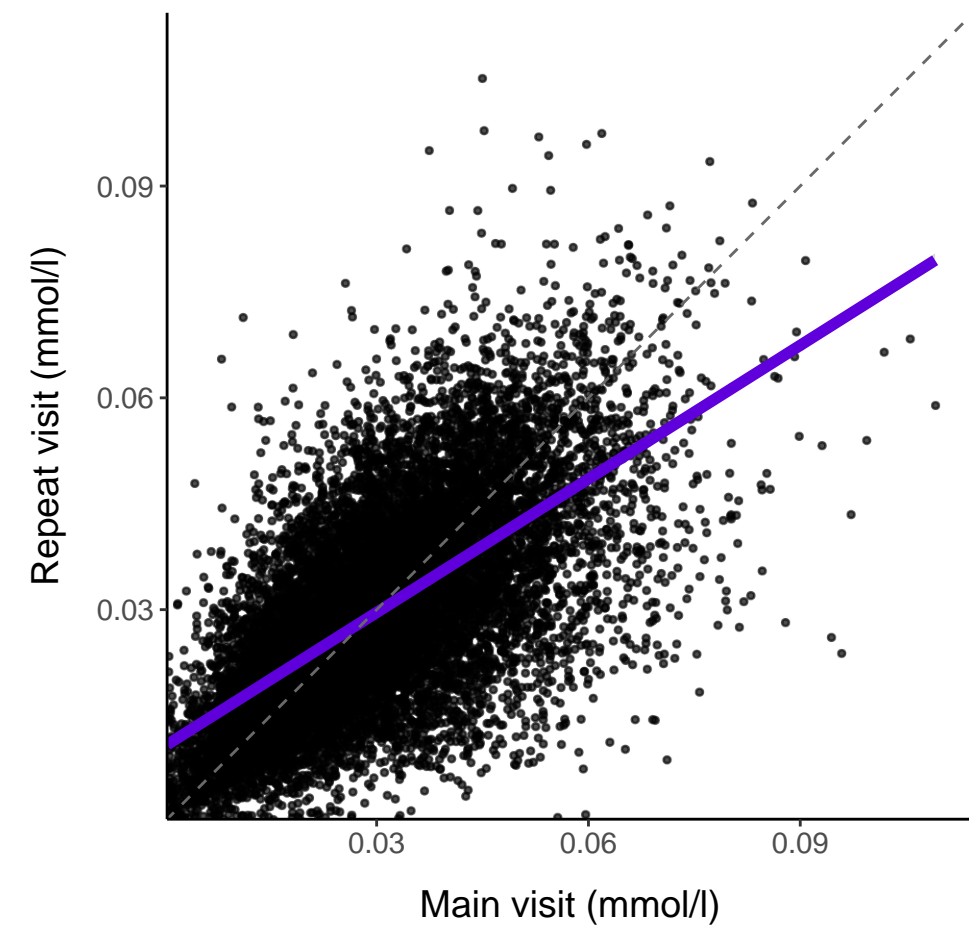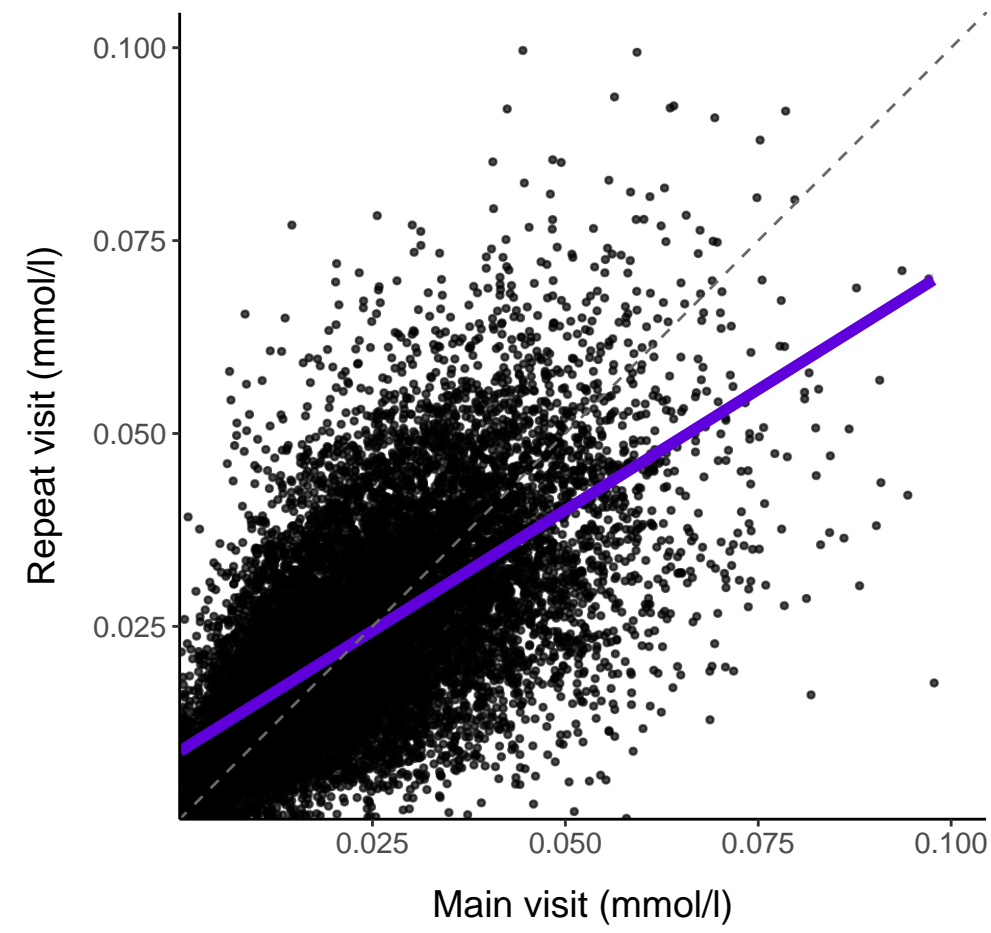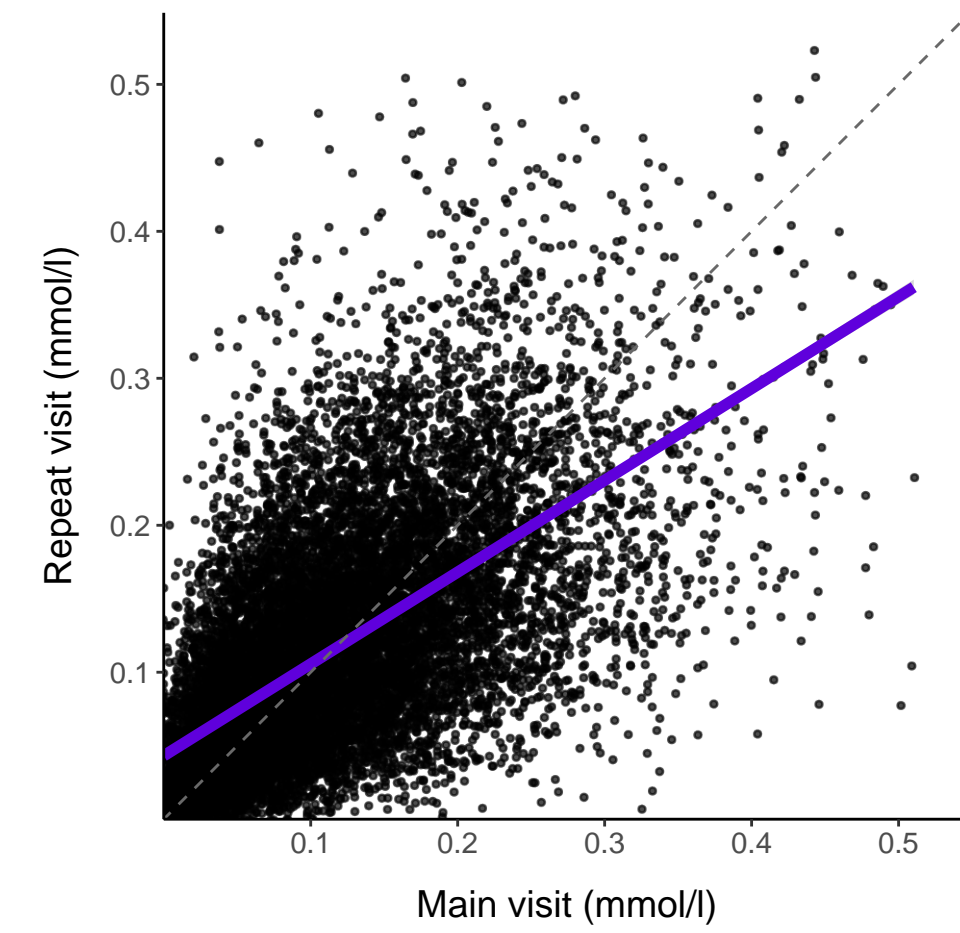
Large VLDL (average diameter 53.6 nm)

L_VLDL_P
R: 0.64
y = 0.00 + 0.63x

L_VLDL_L
R: 0.63
y = 0.13 + 0.62x

L_VLDL_PL
R: 0.66
y = 0.02 + 0.65x

L_VLDL_C
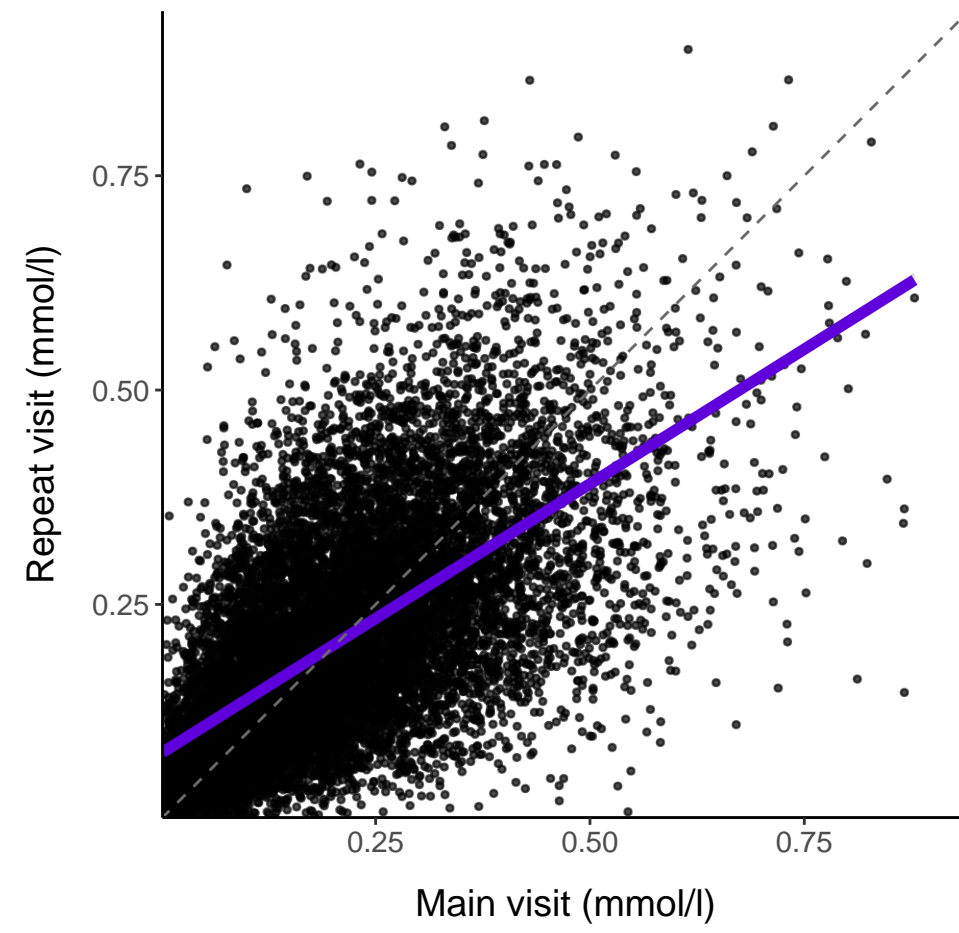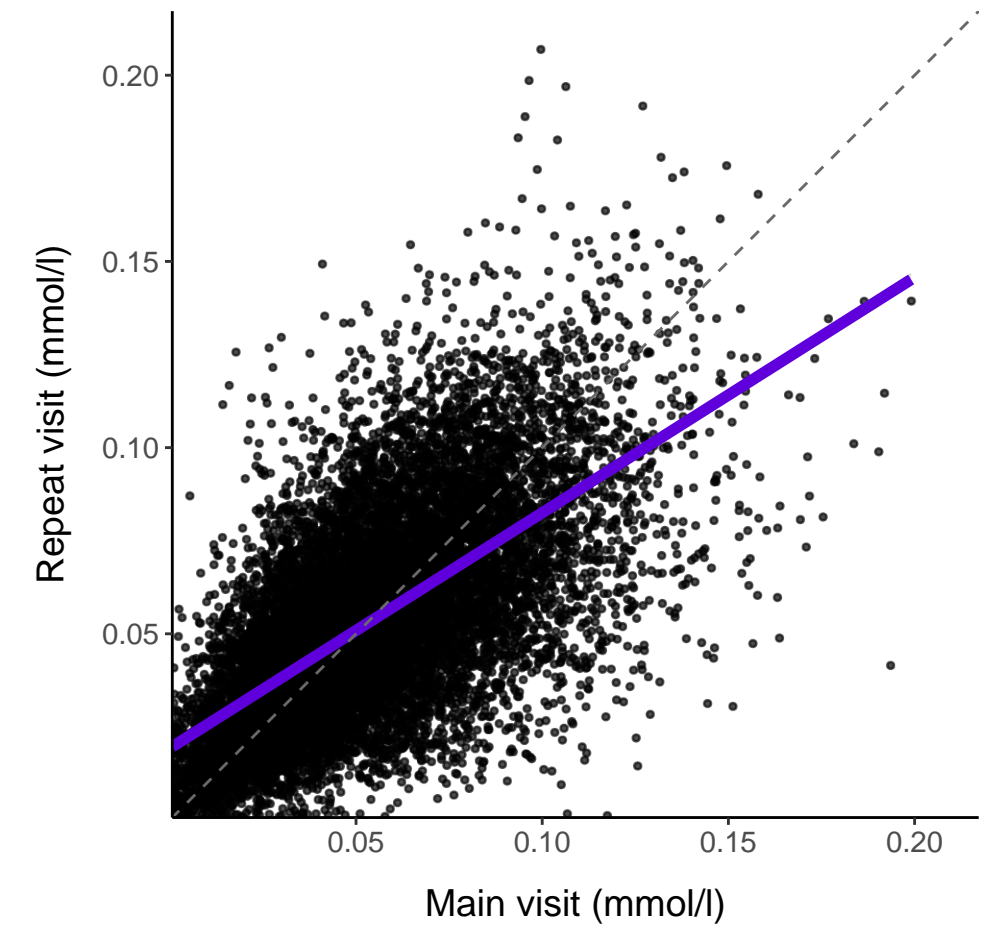R: 0.64
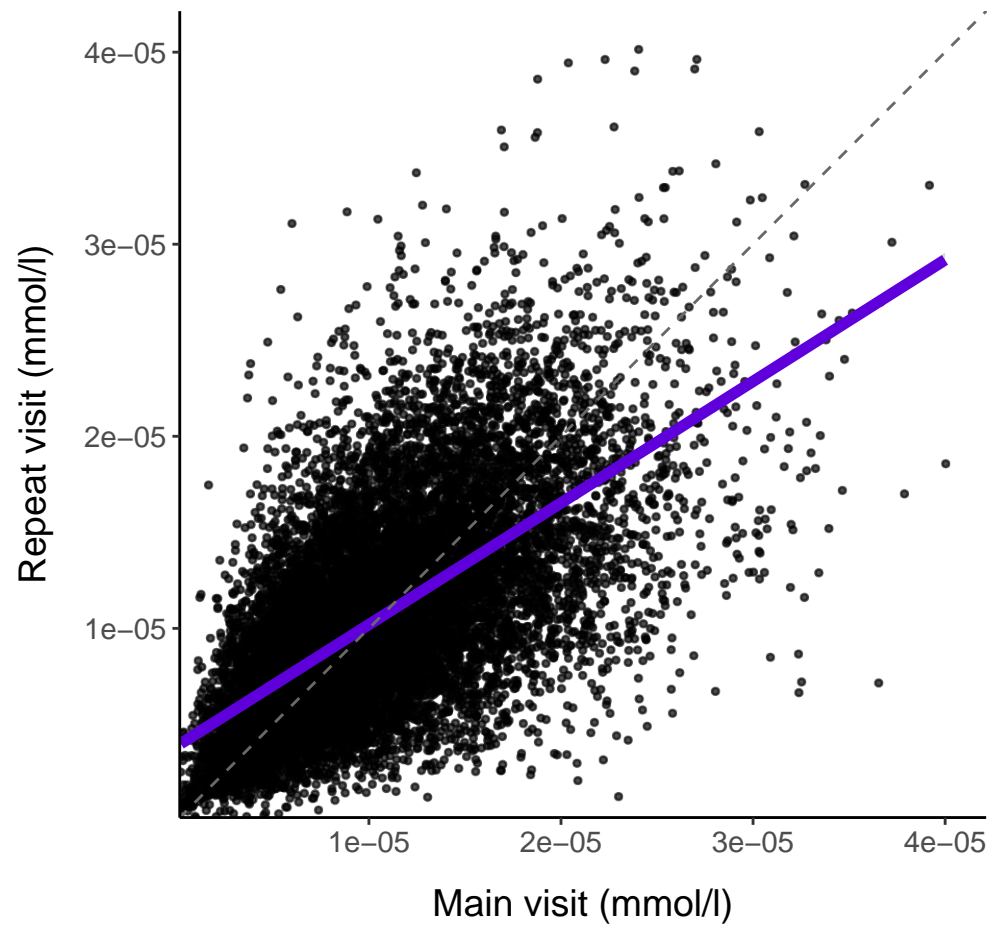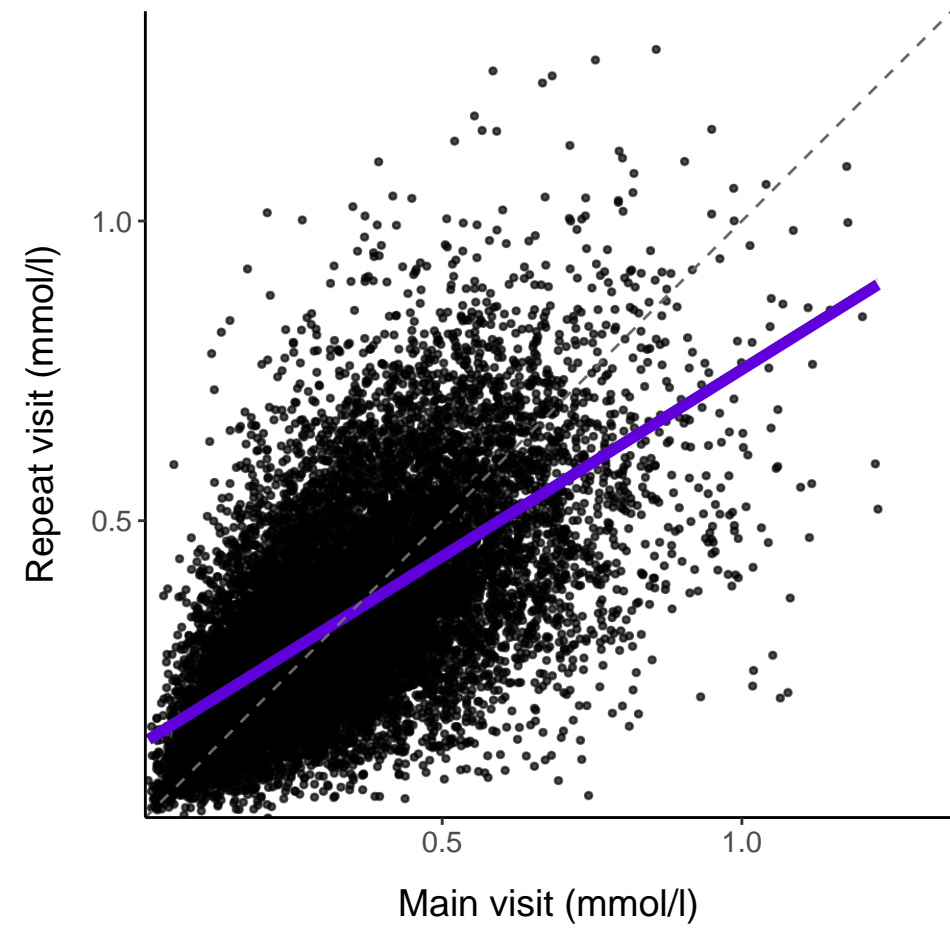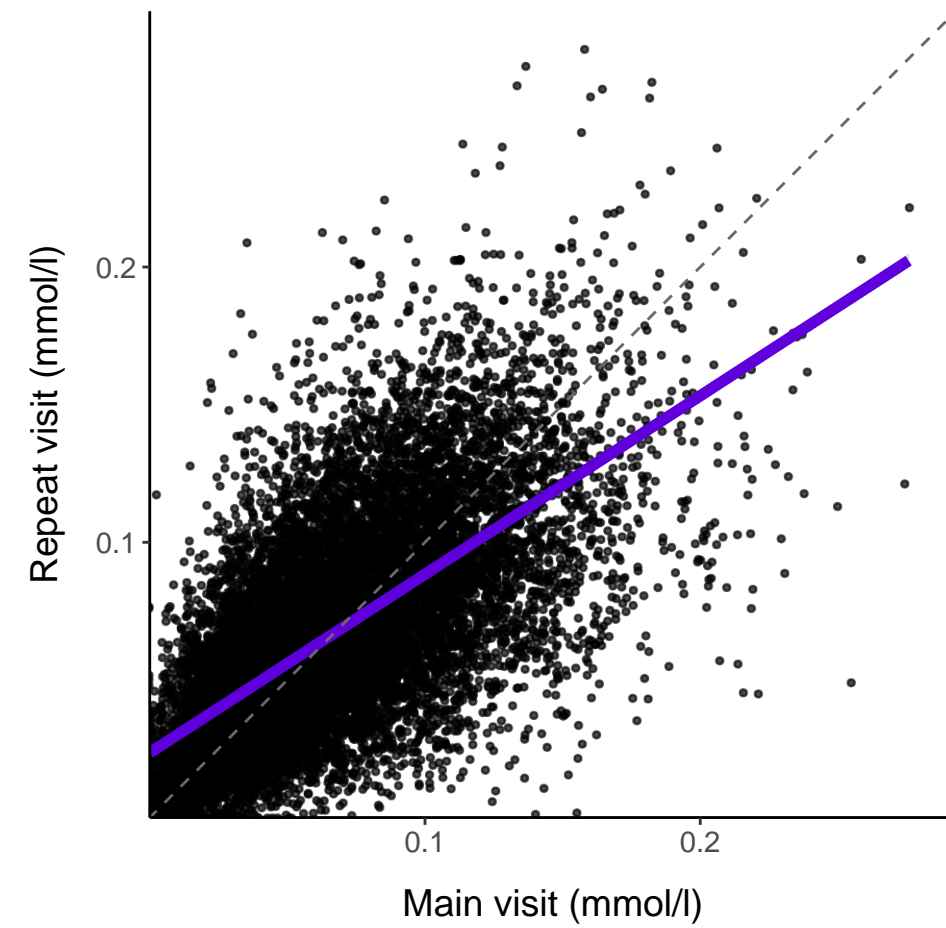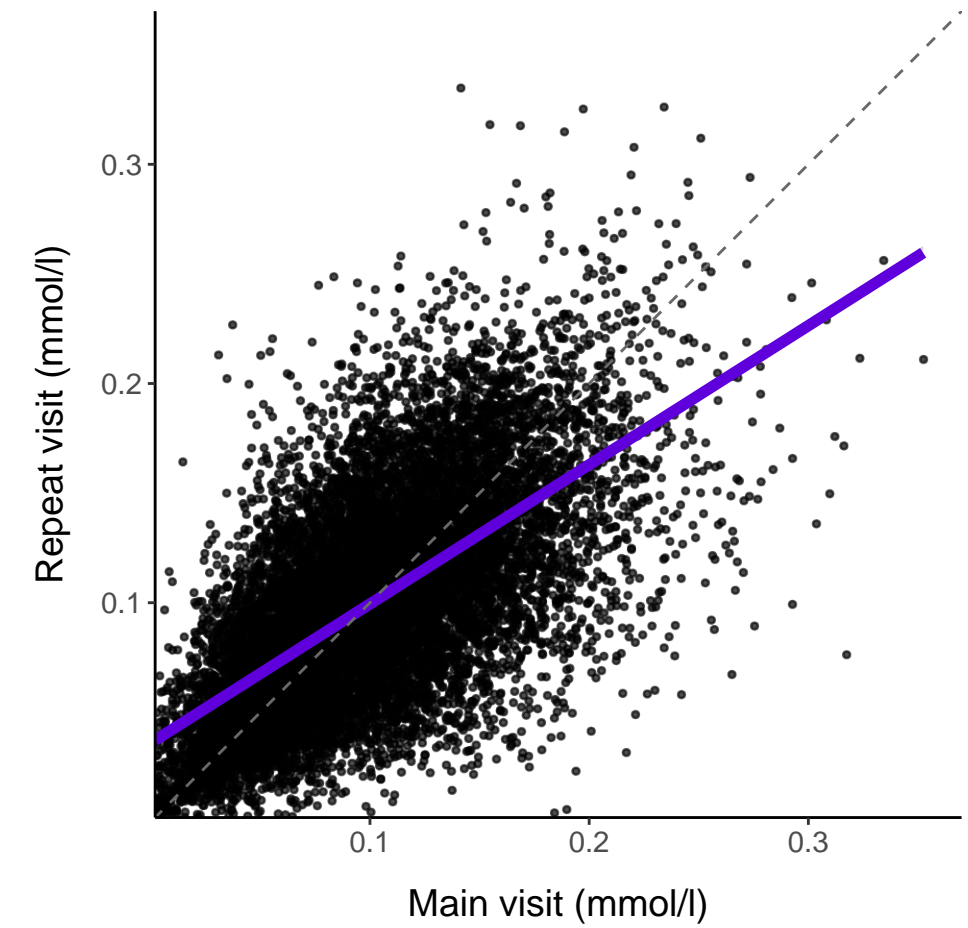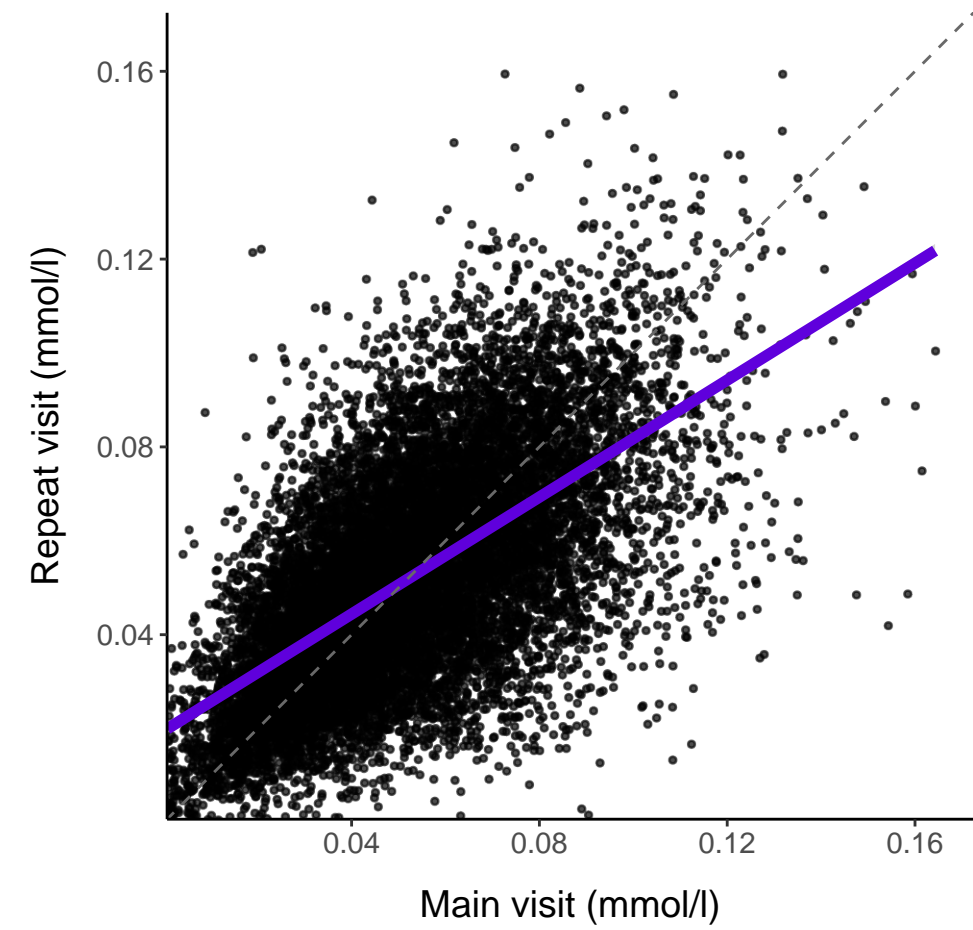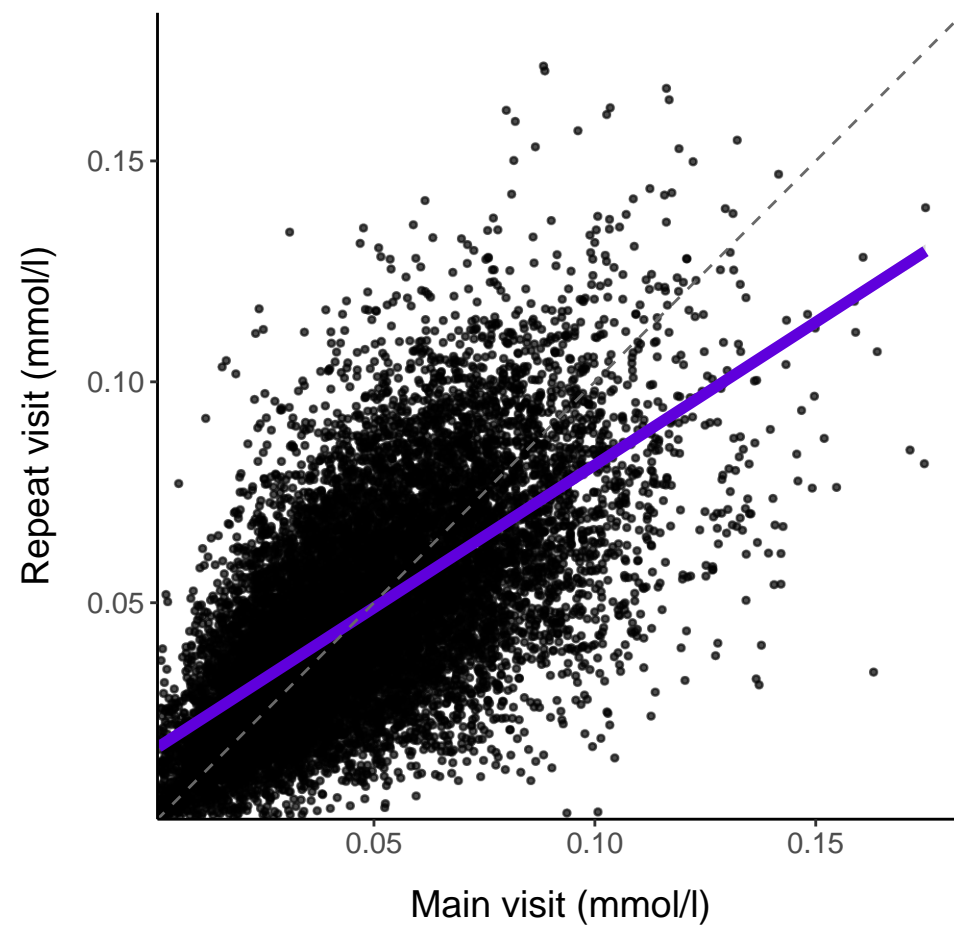y = 0.04 + 0.63x

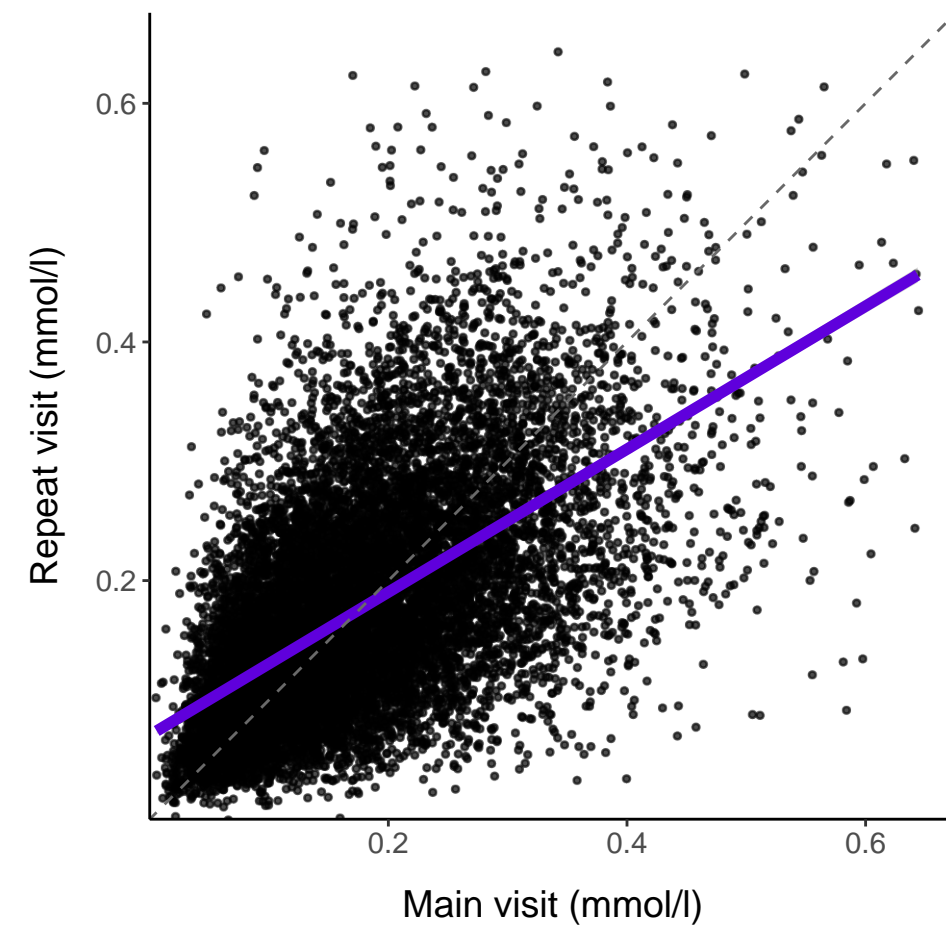### L_VLDL_CE
R: 0.63
y = 0.02 + 0.62x

L_VLDL_FC
R: 0.66
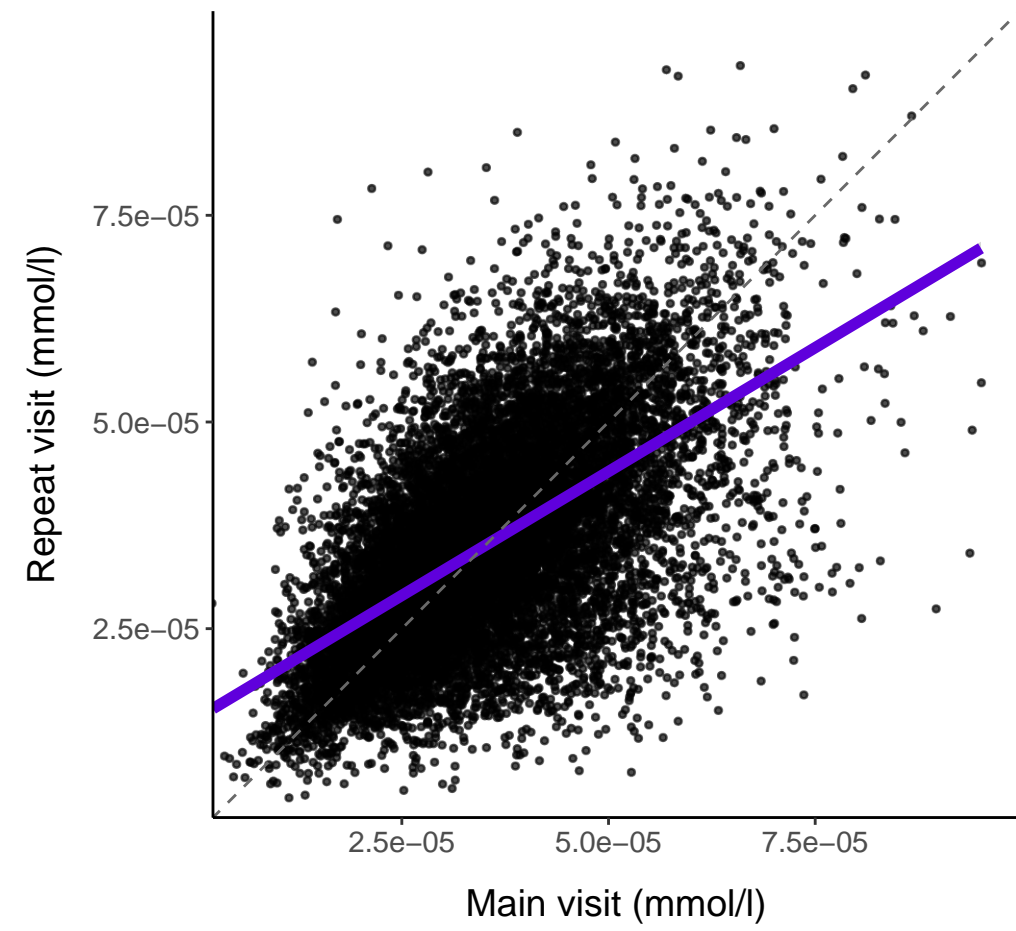y = 0.02 + 0.65x

L_VLDL_TG
R: 0.59
y = 0.07 + 0.60x
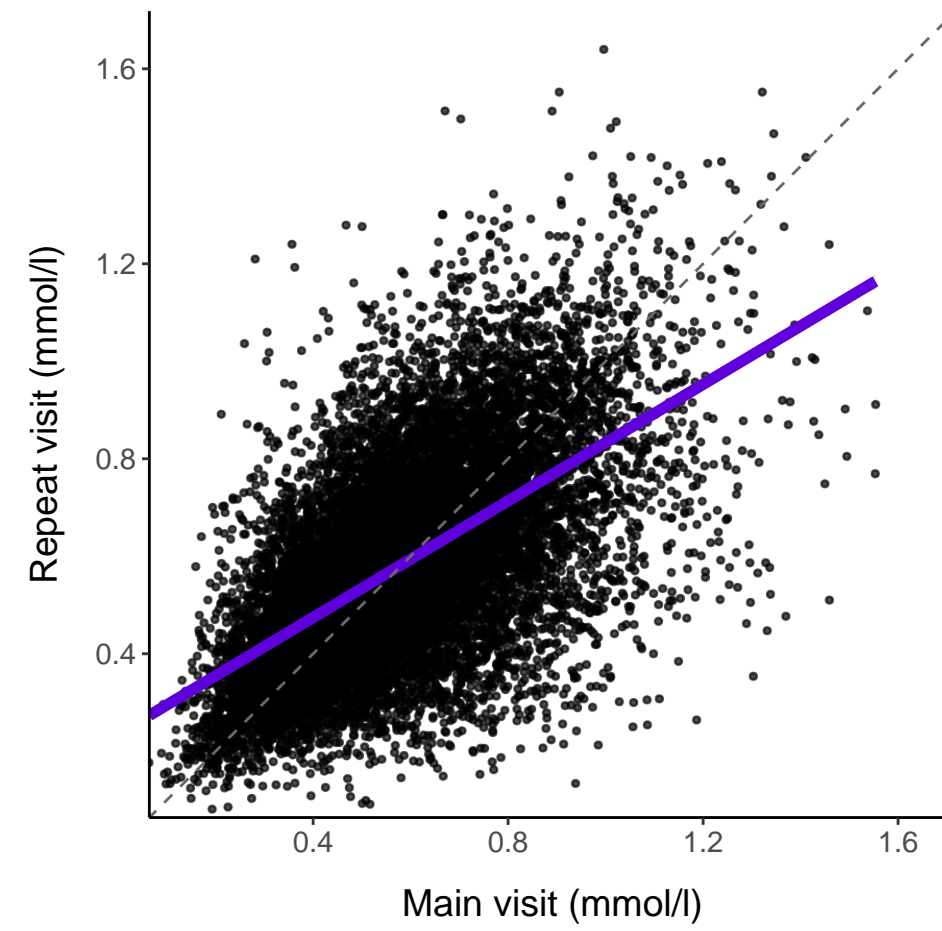
Medium VLDL (average diameter 44.5 nm)

M_VLDL_P
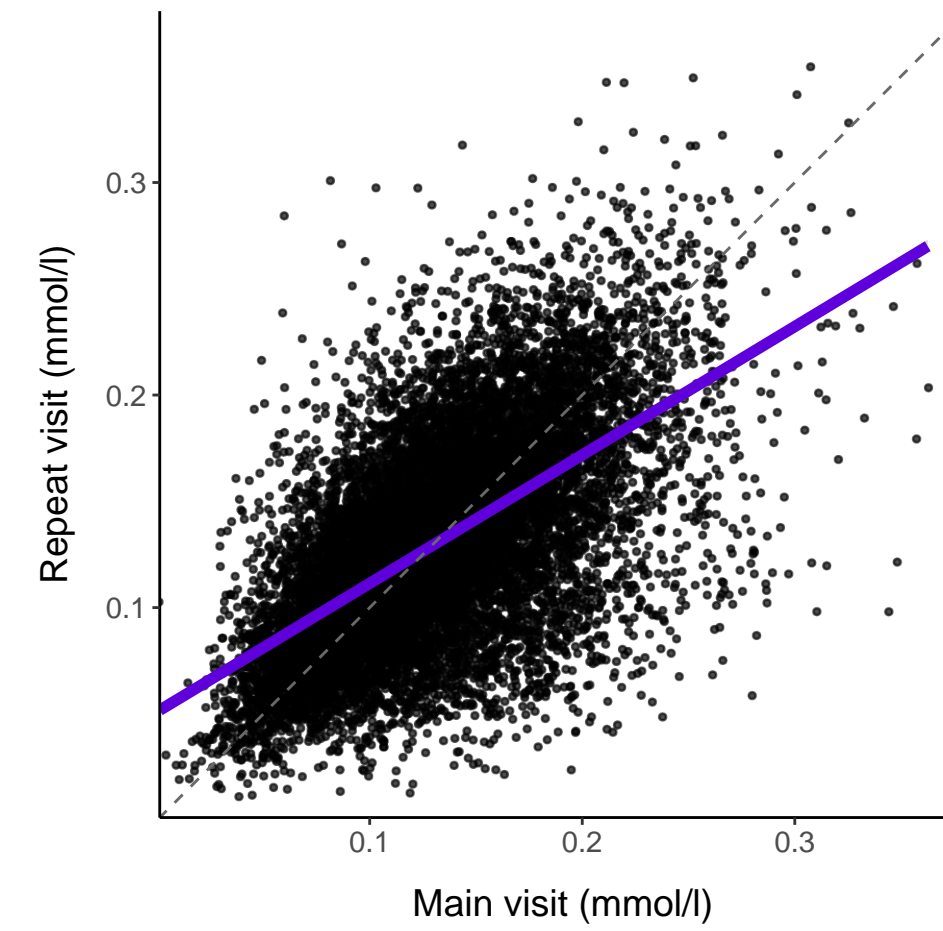
R: 0.6
y = 0.00 + 0.60x

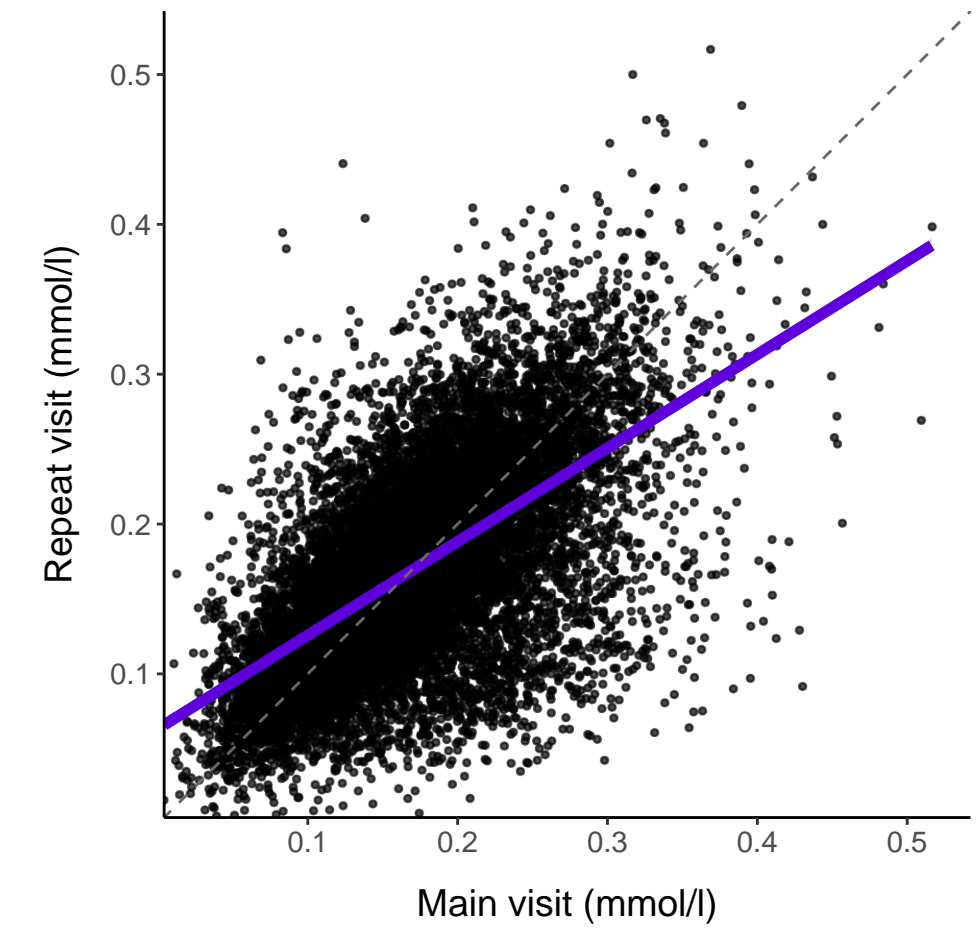## M_VLDL_L

R: 0.6
y = 0.24 + 0.60x
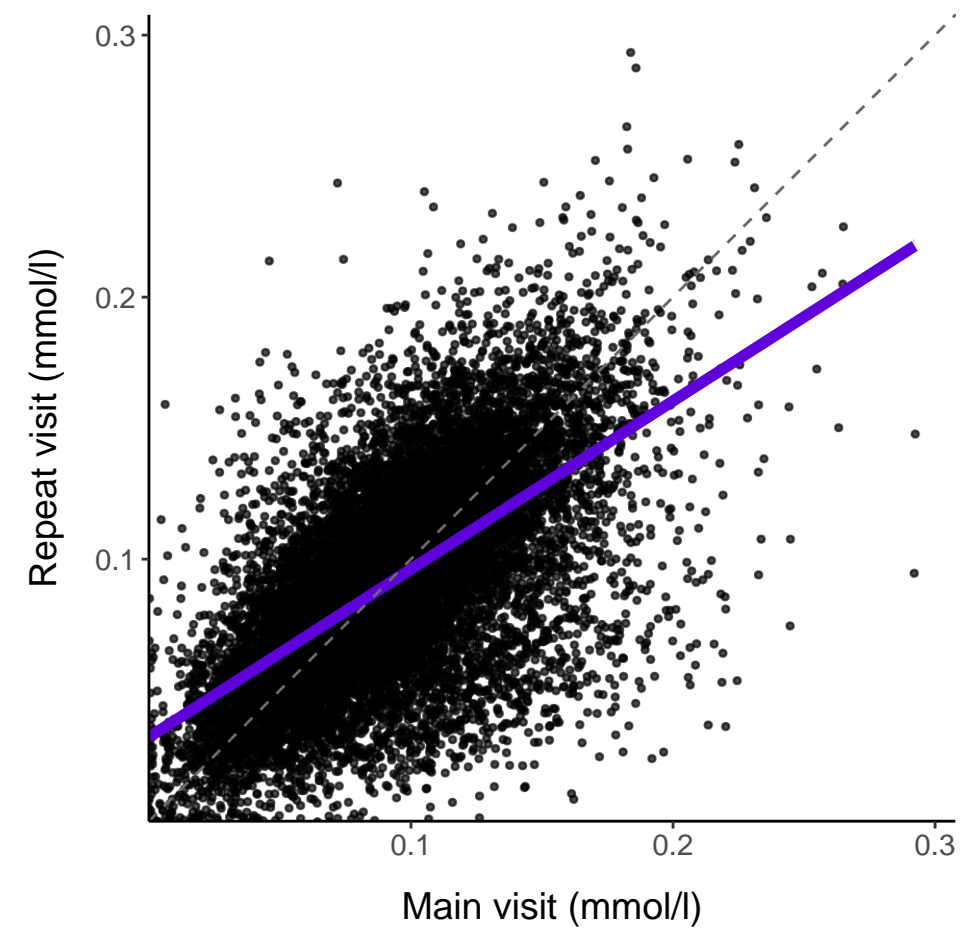
M_VLDL_PL

R: 0.6
y = 0.05 + 0.60x

M_VLDL_C

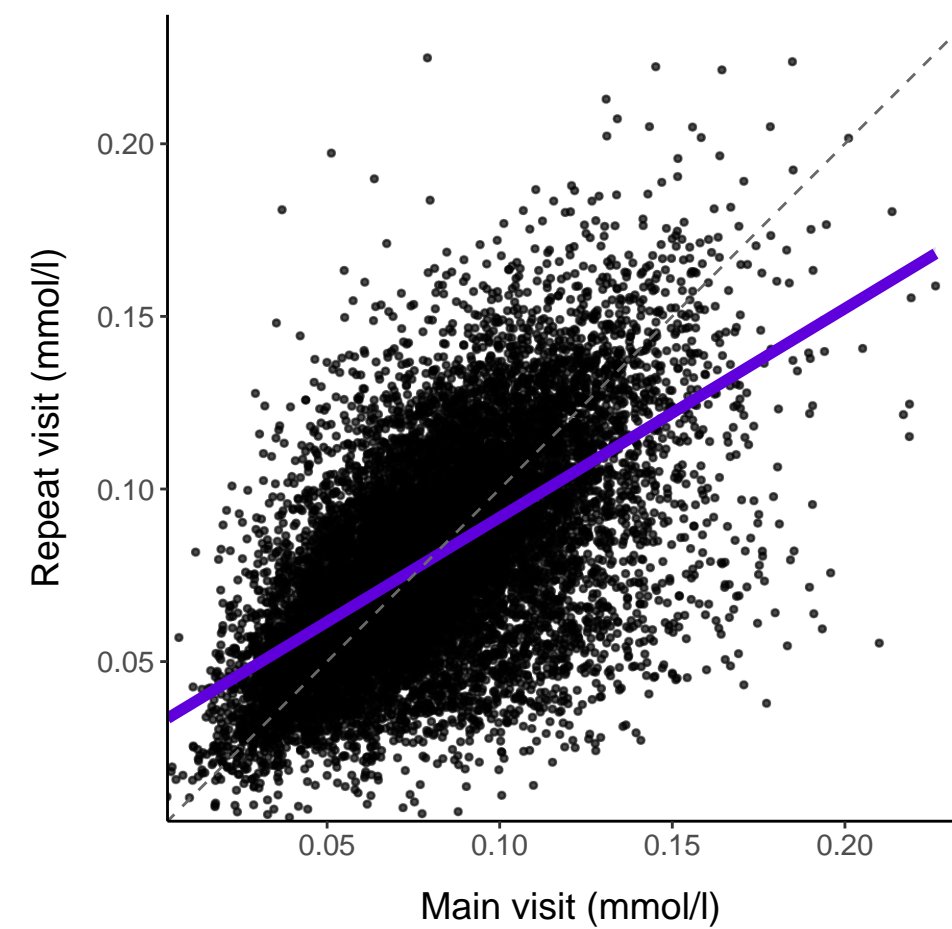R: 0.61
y = 0.06 + 0.62x

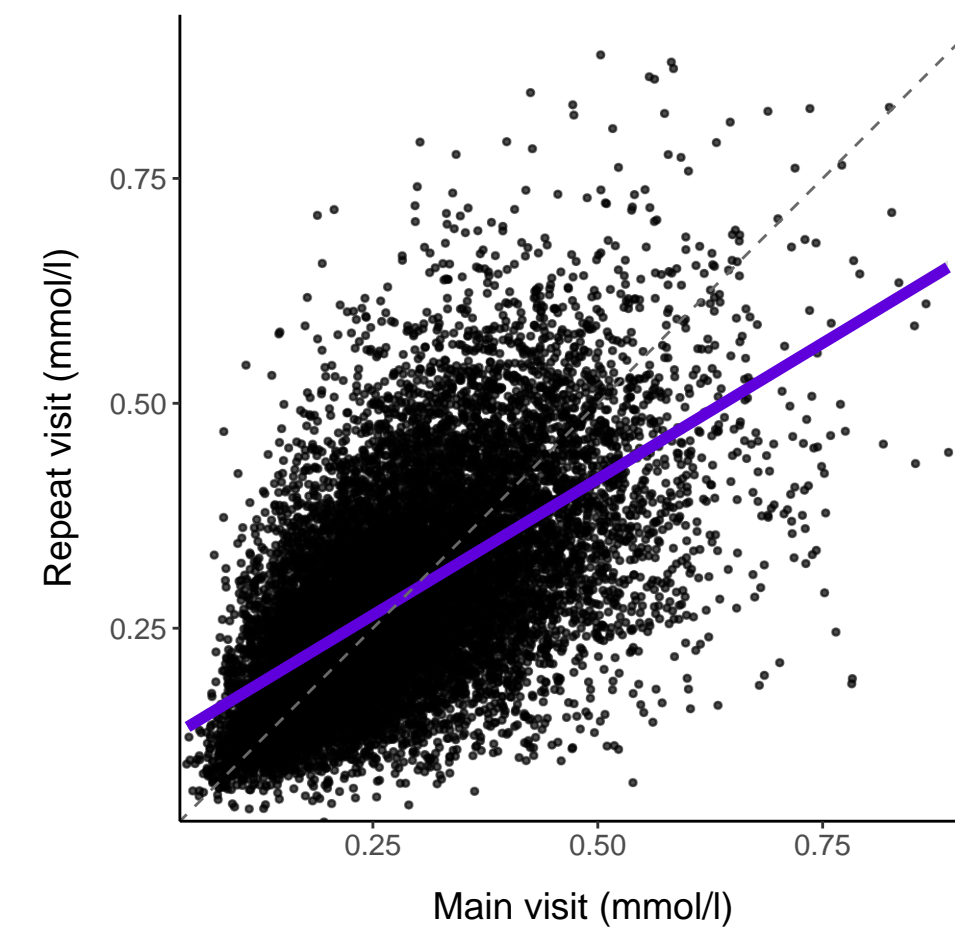## M_VLDL_CE

R: 0.62
y = 0.03 + 0.64x

M_VLDL_FC

R: 0.6
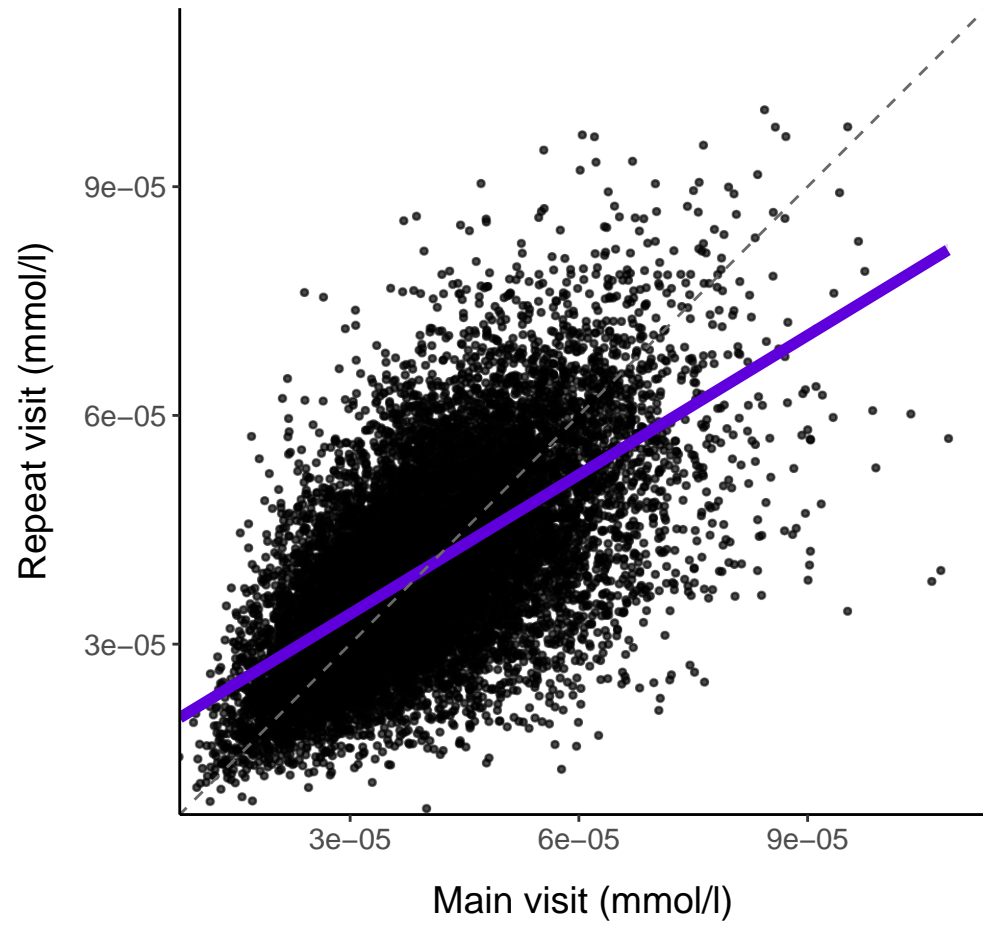y = 0.03 + 0.61x

M_VLDL_TG

R: 0.6
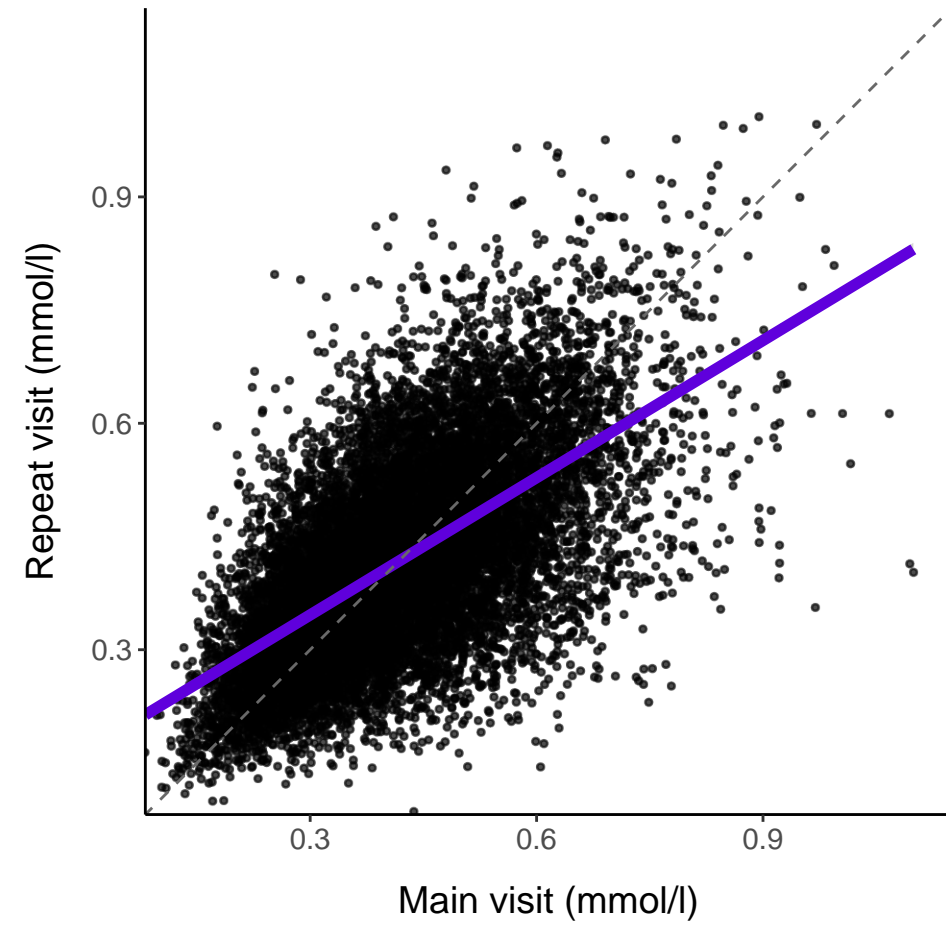y = 0.11 + 0.60x

Small VLDL (average diameter 36.8 nm)
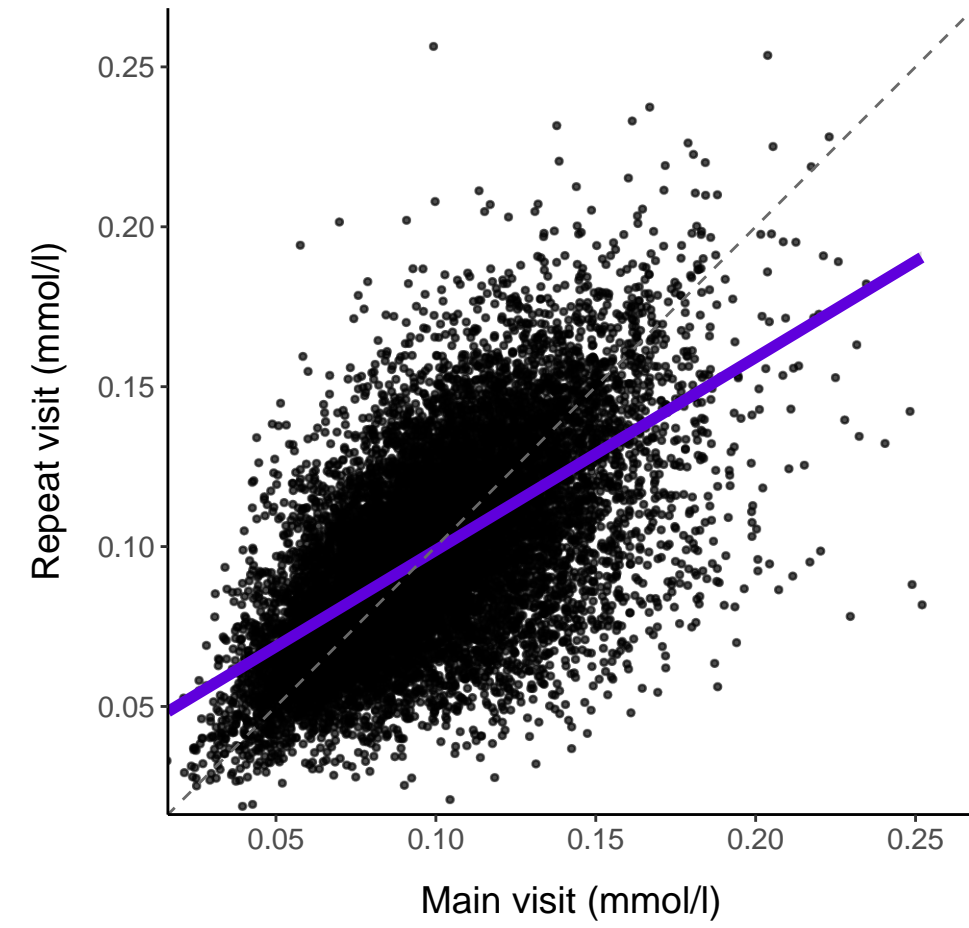

S_VLDL_P
R: 0.63
y = 0.00 + 0.61x
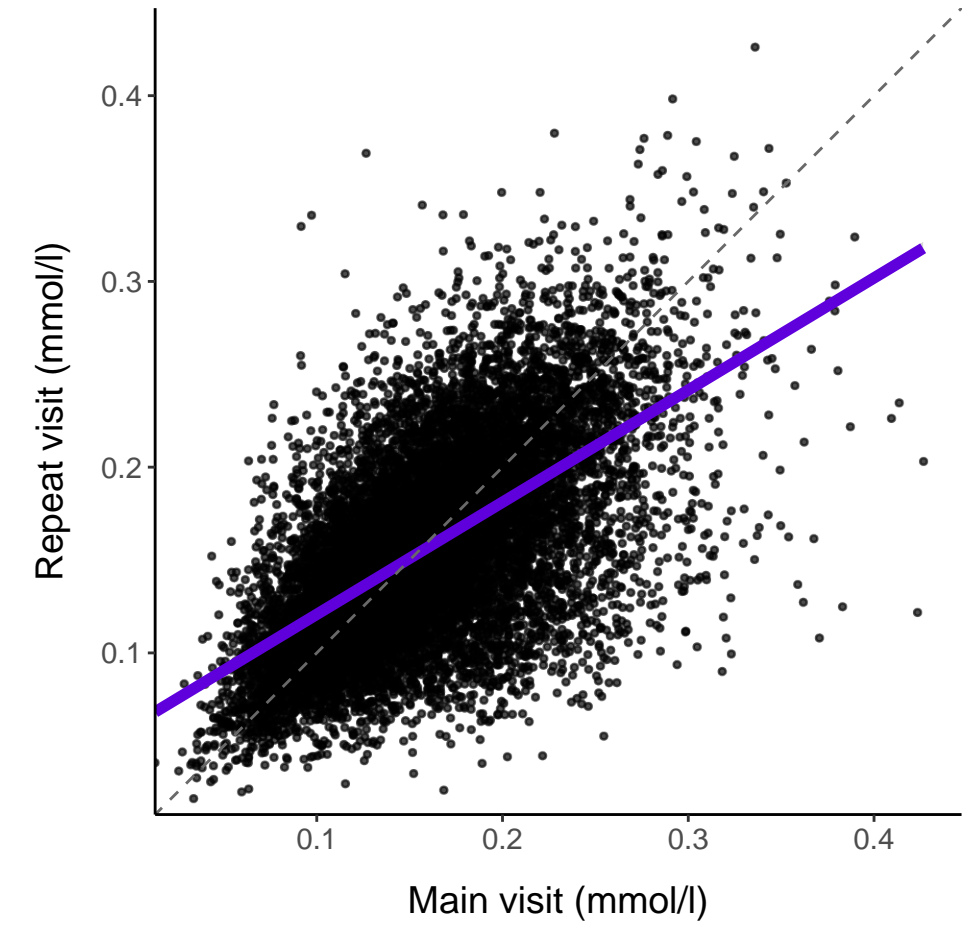
S_VLDL_L
R: 0.62
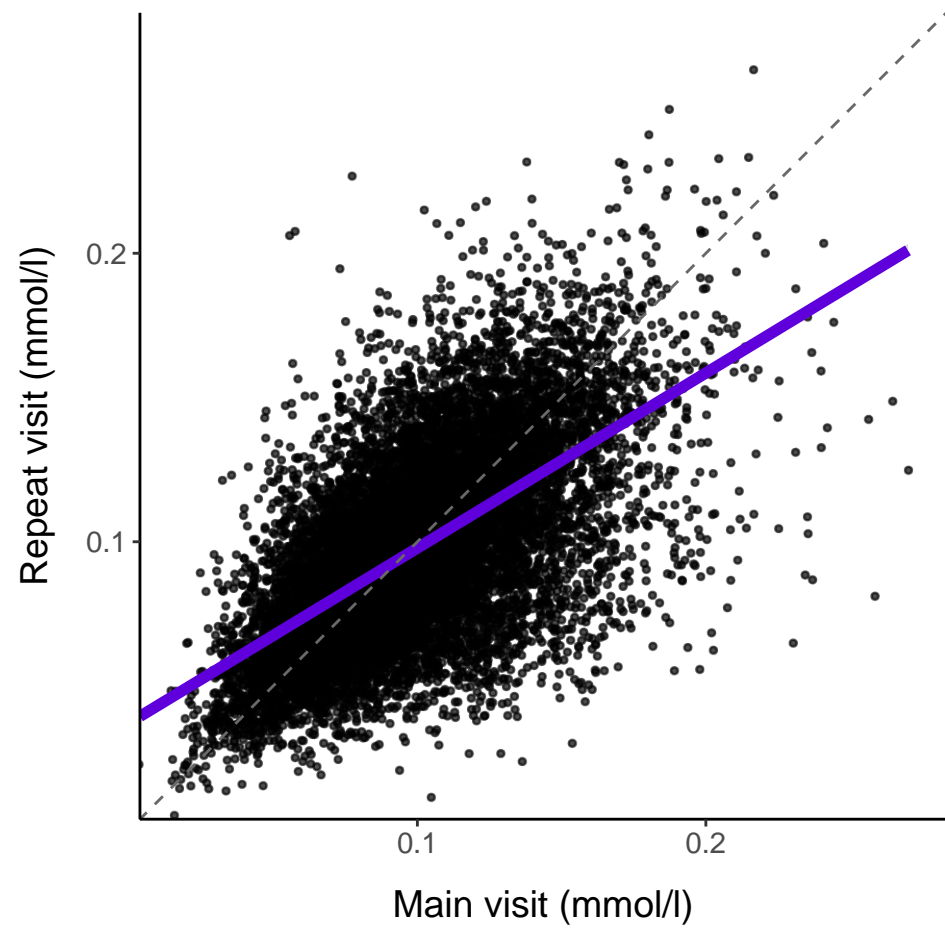y = 0.16 + 0.61x

S_VLDL_PL
R: 0.61
y = 0.04 + 0.60x

S_VLDL_C
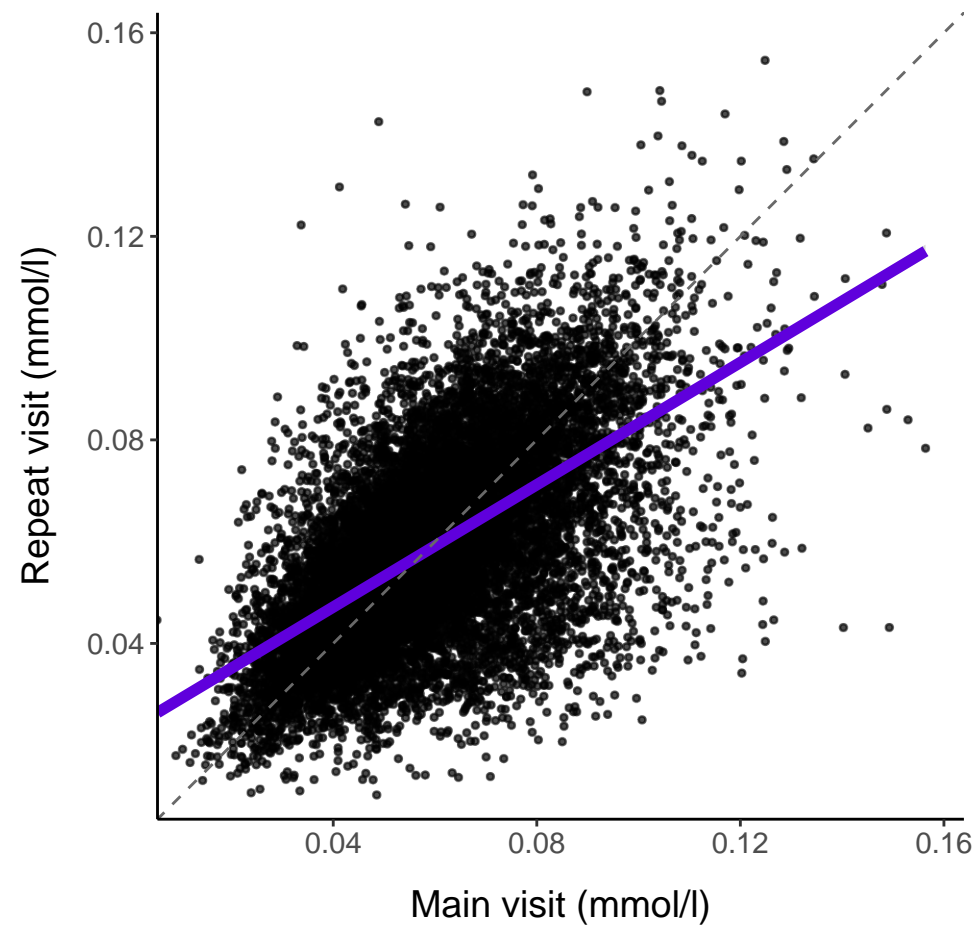R: 0.61
y = 0.06 + 0.60x

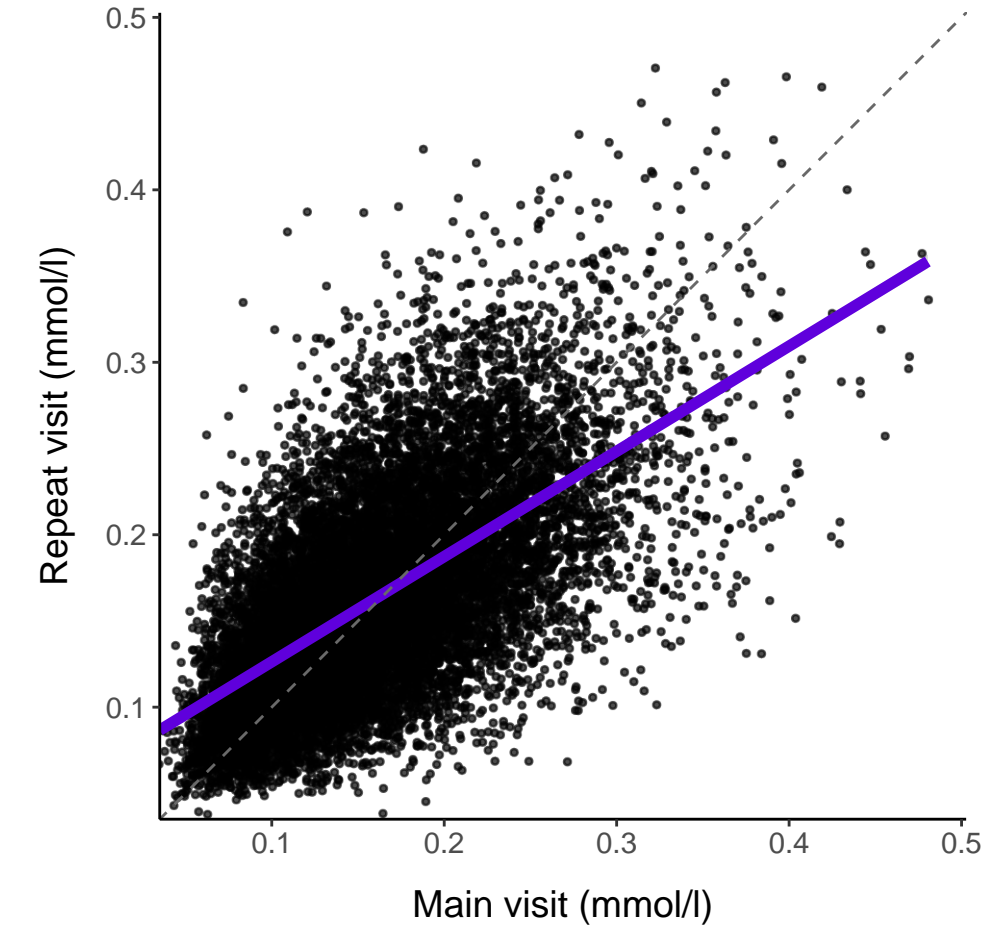### S_VLDL_CE
R: 0.62
y = 0.04 + 0.61x

S_VLDL_FC
R: 0.6
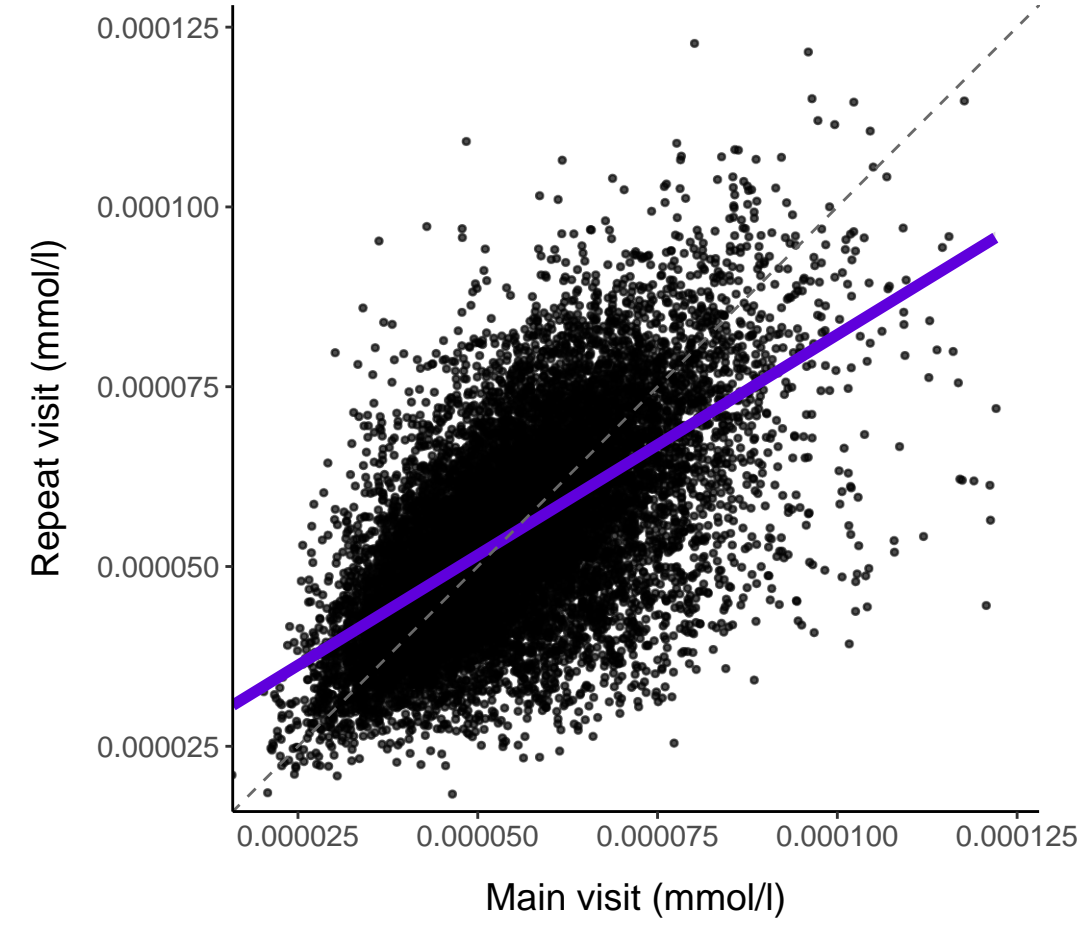y = 0.02 + 0.60x

S_VLDL_TG
R: 0.63
y = 0.07 + 0.61x

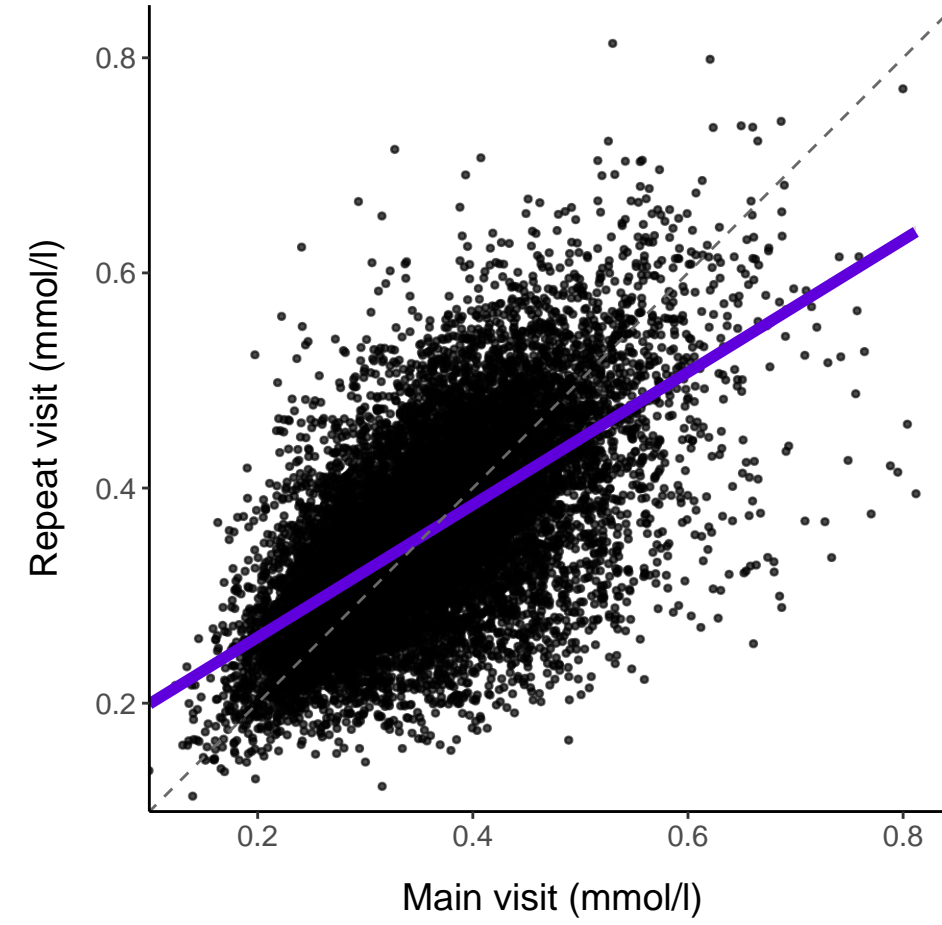**Very small VLDL (average diameter 31.3 nm)**
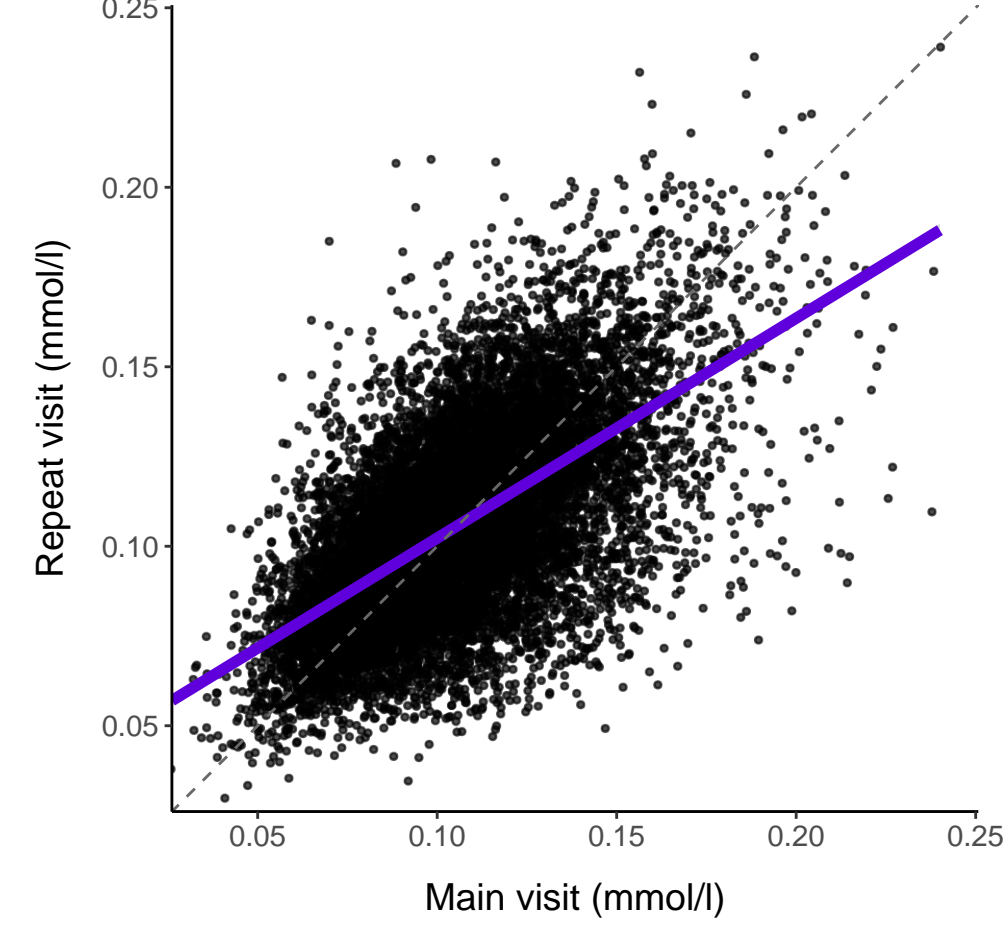
XS_VLDL_P
R: 0.62
y = 0.00 + 0.61x

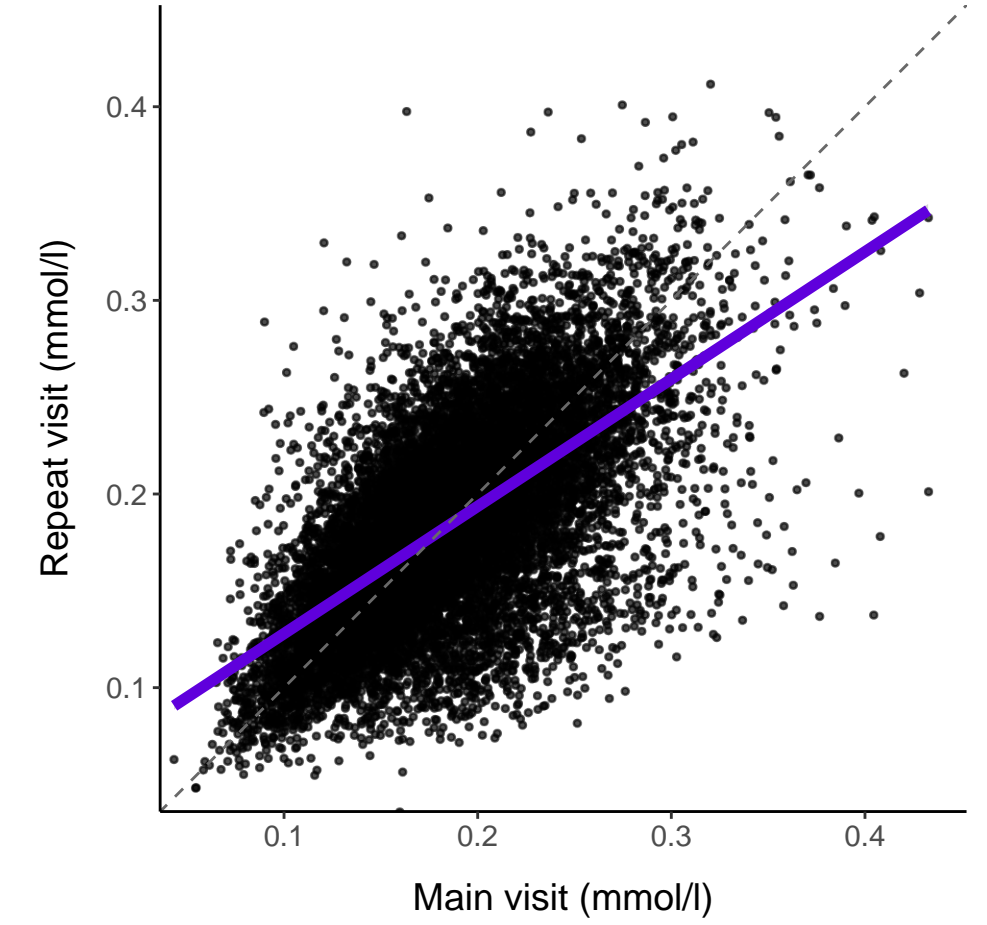**XS_VLDL_L**
R: 0.62
y = 0.14 + 0.62x
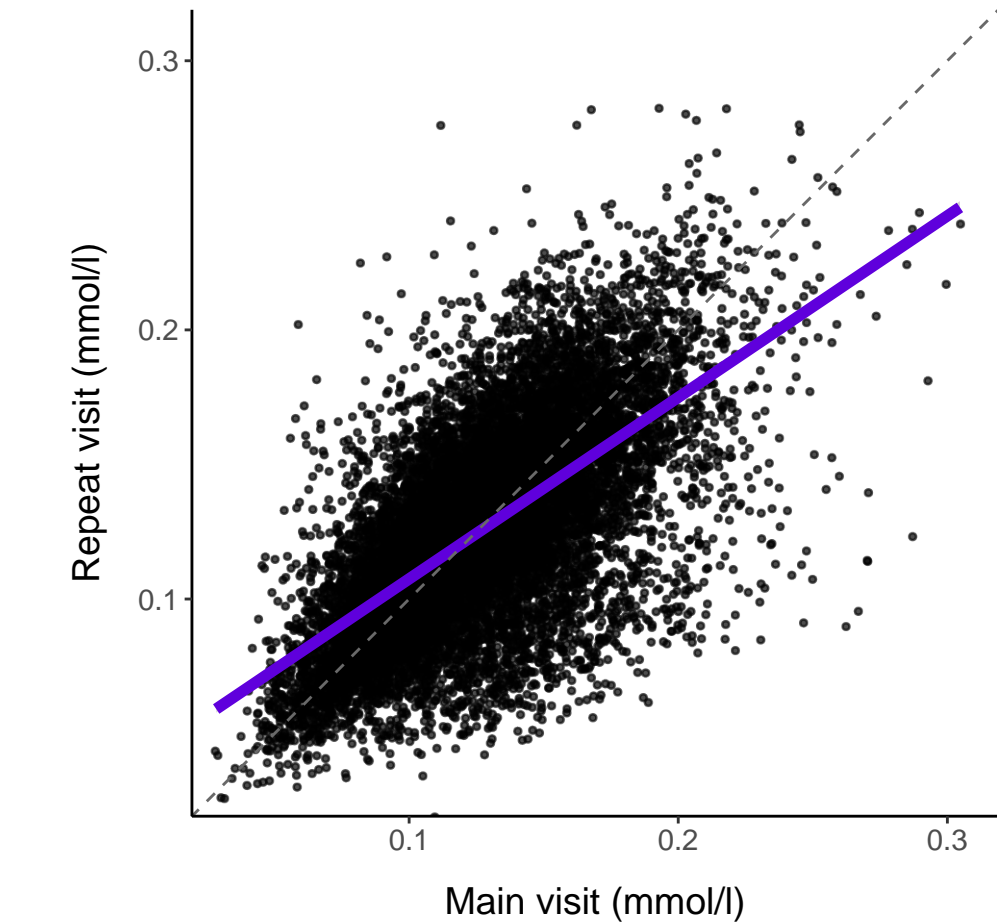
XS_VLDL_PL
R: 0.62
y = 0.04 + 0.61x

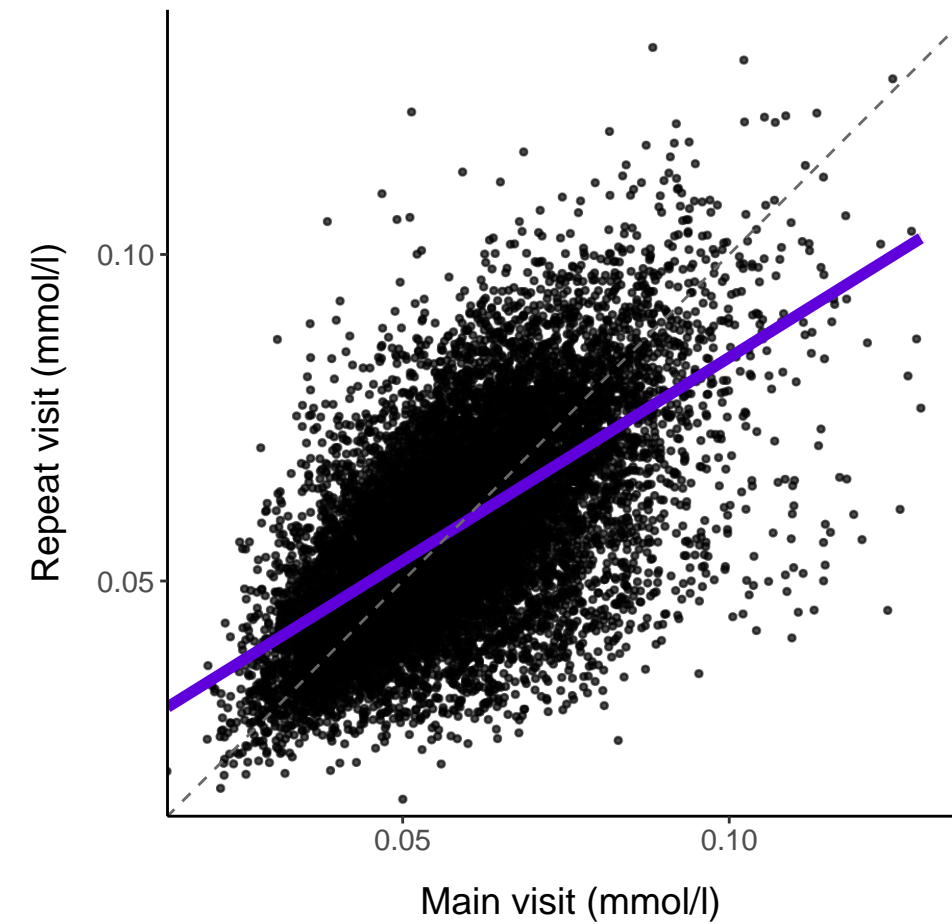**XS_VLDL_C**
R: 0.64
y = 0.06 + 0.66x
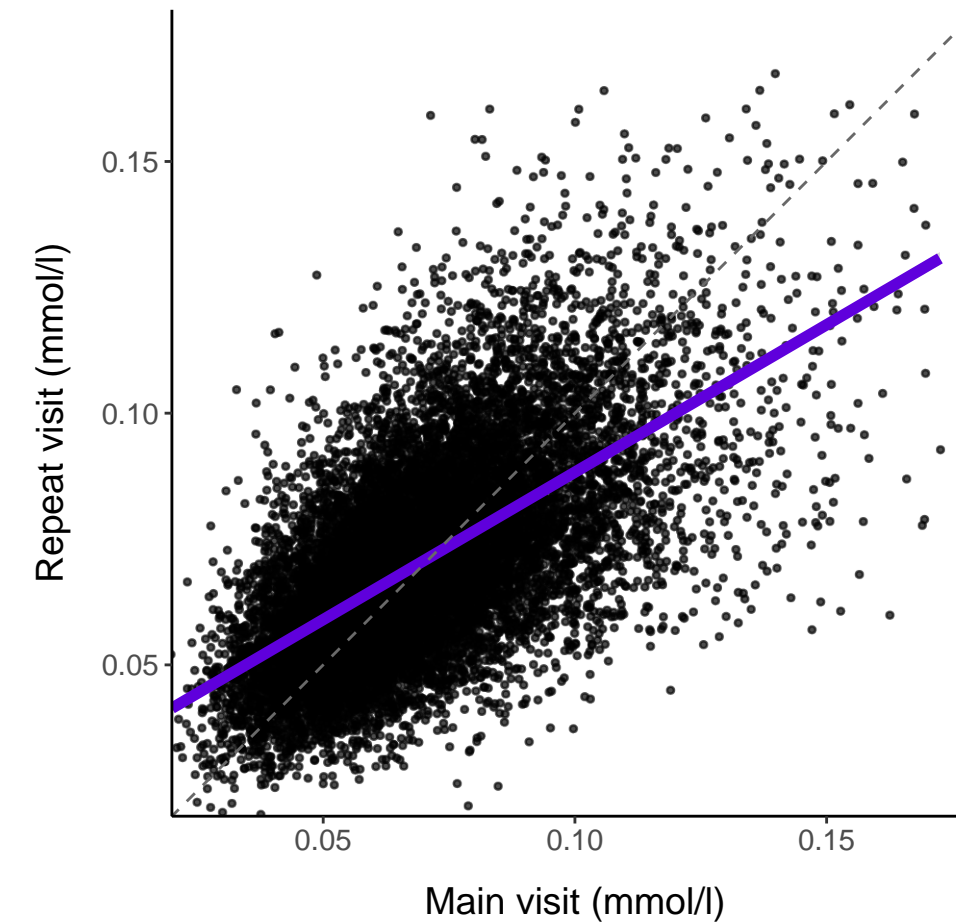
XS_VLDL_CE
R: 0.65
y = 0.04 + 0.67x

XS_VLDL_FC
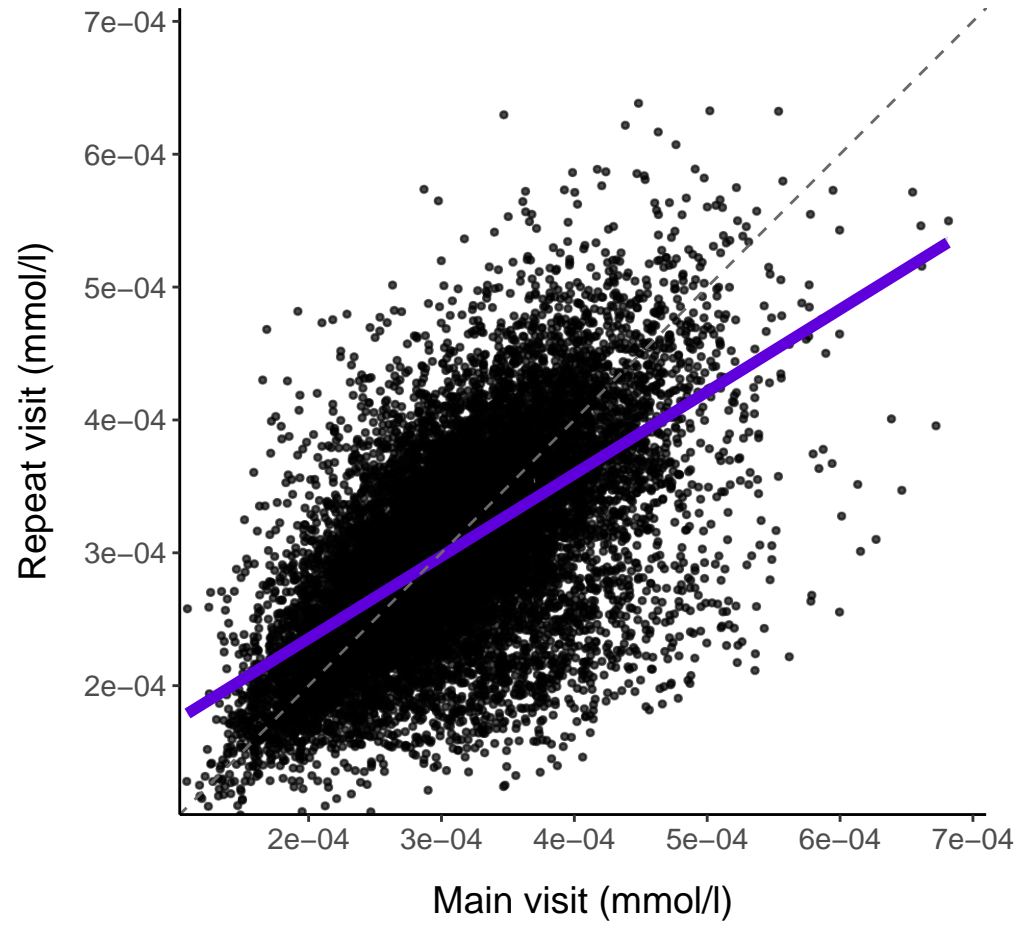R: 0.62
y = 0.02 + 0.62x

XS_VLDL_TG
R: 0.62
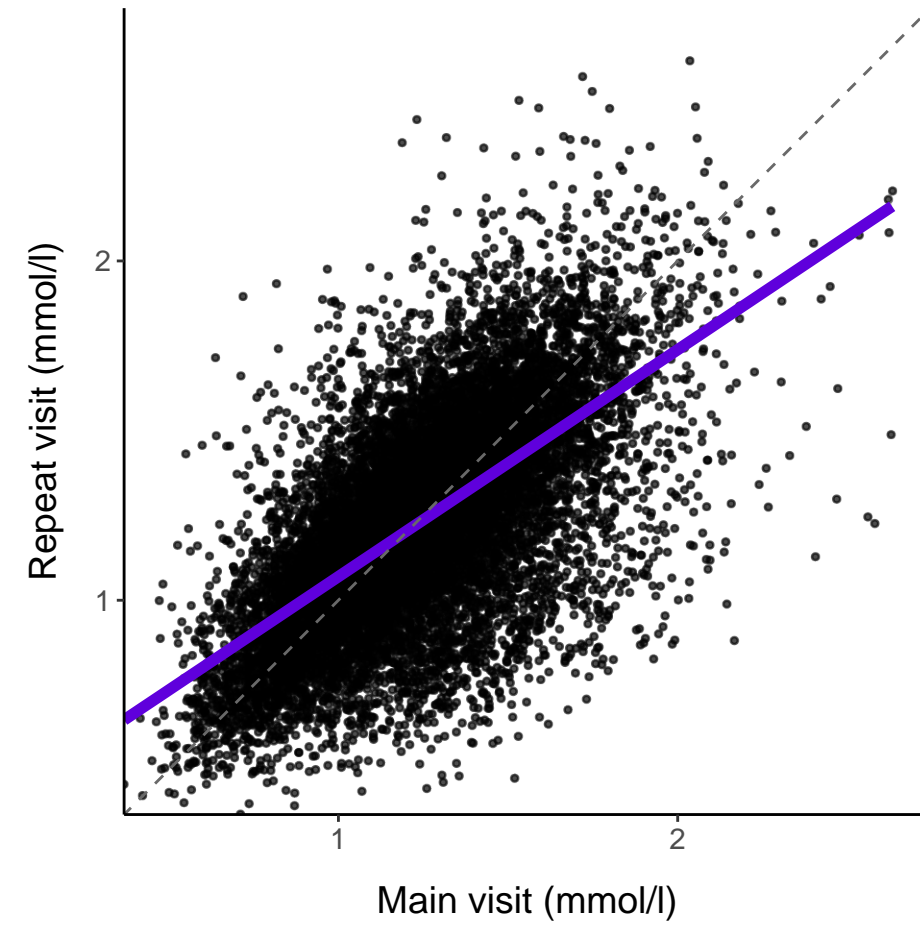y = 0.03 + 0.59x

IDL (average diameter 28.6 nm)
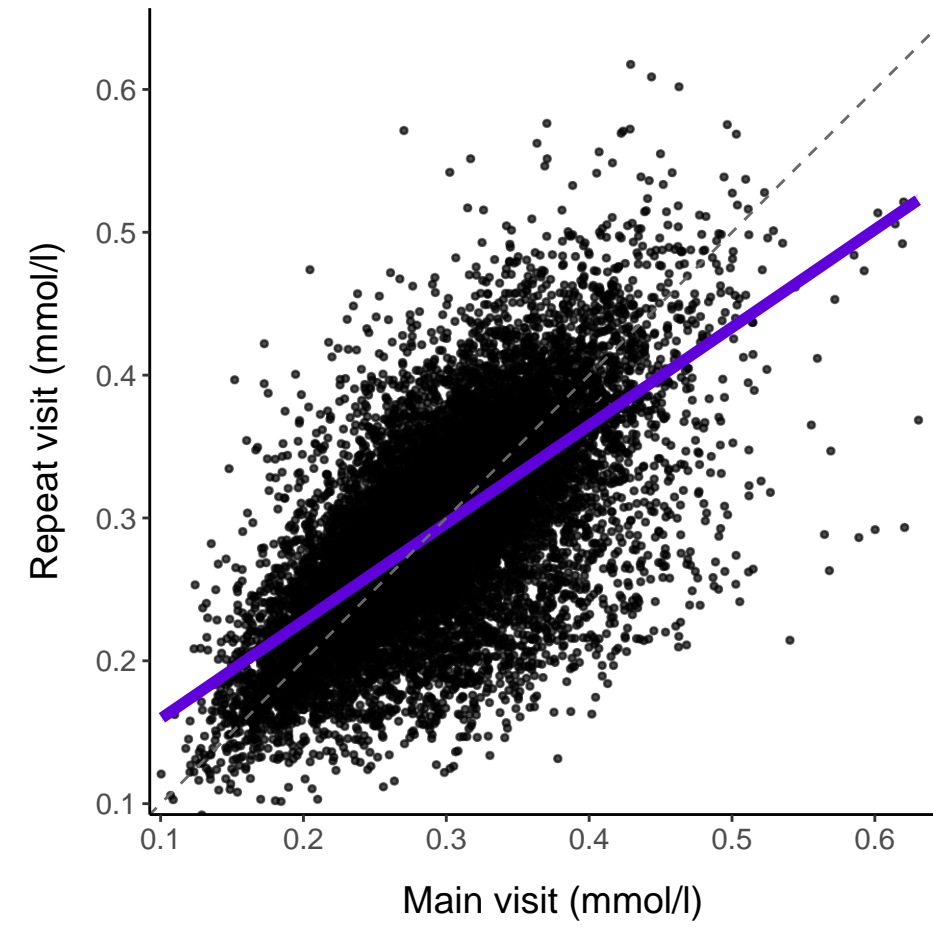

IDL_P

R: 0.61
y = 0.00 + 0.62x

IDL_L
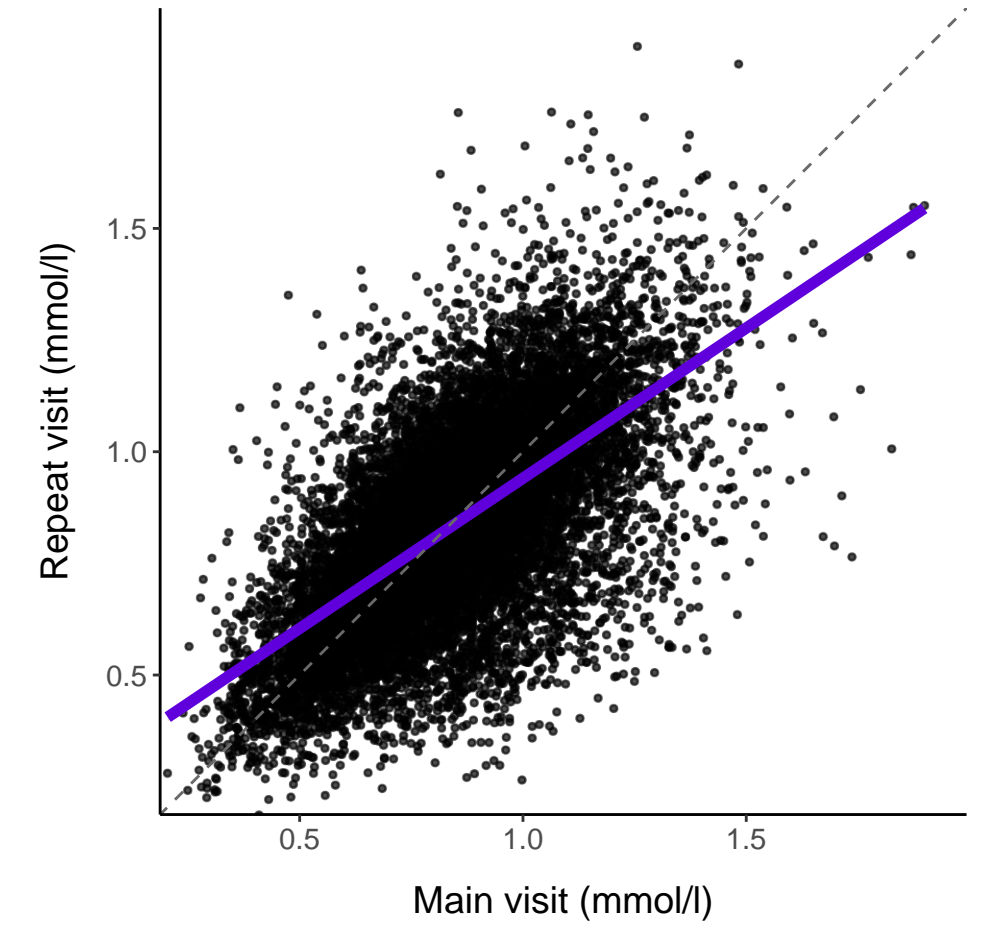
R: 0.64
y = 0.40 + 0.67x
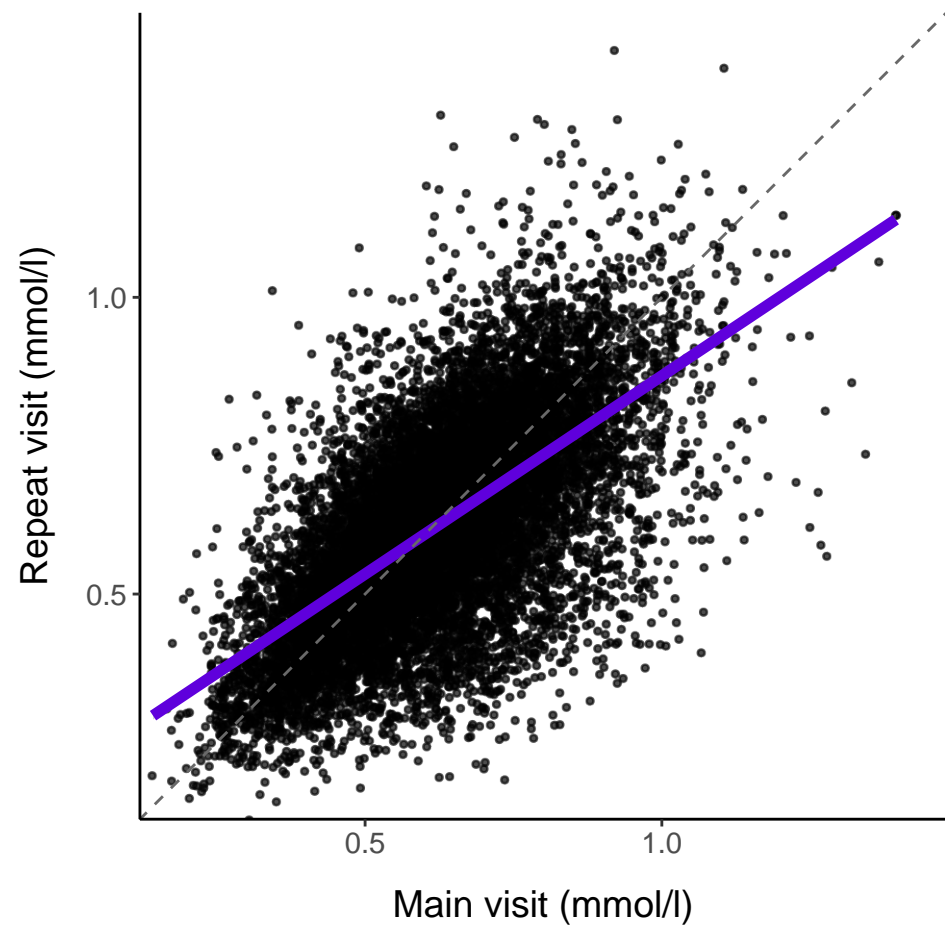
IDL_PL

R: 0.65
y = 0.09 + 0.68x
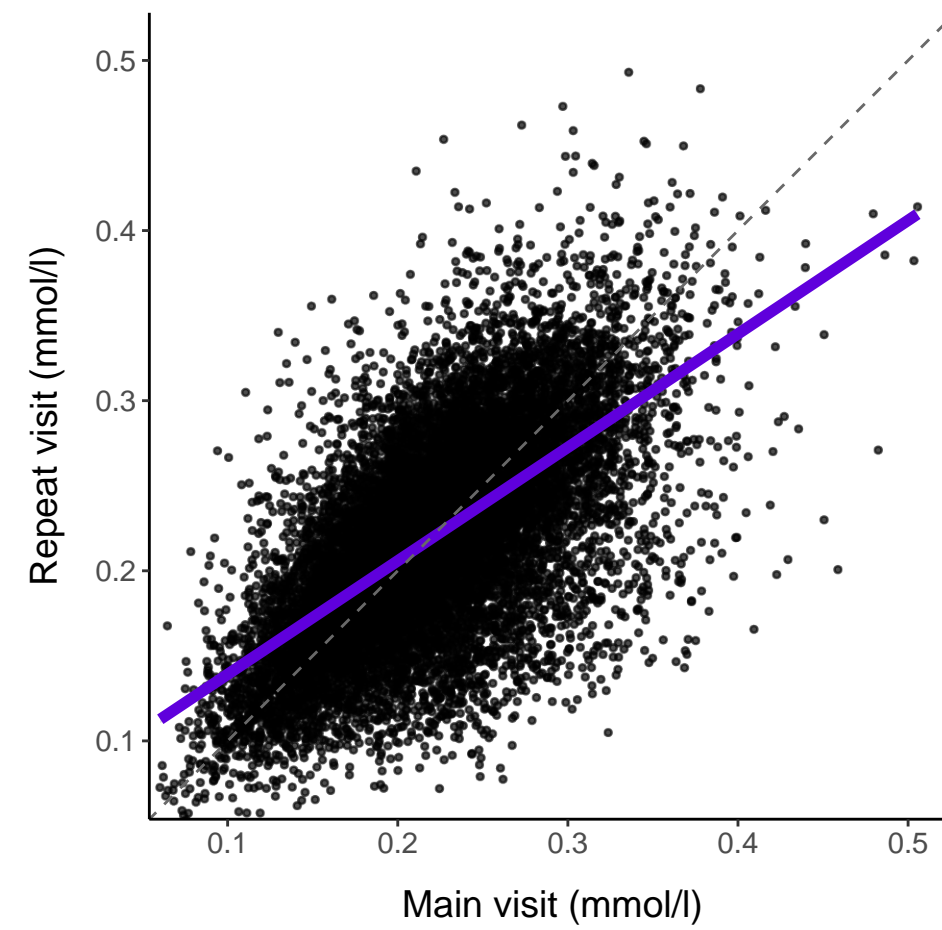
IDL_C

R: 0.64
y = 0.27 + 0.67x
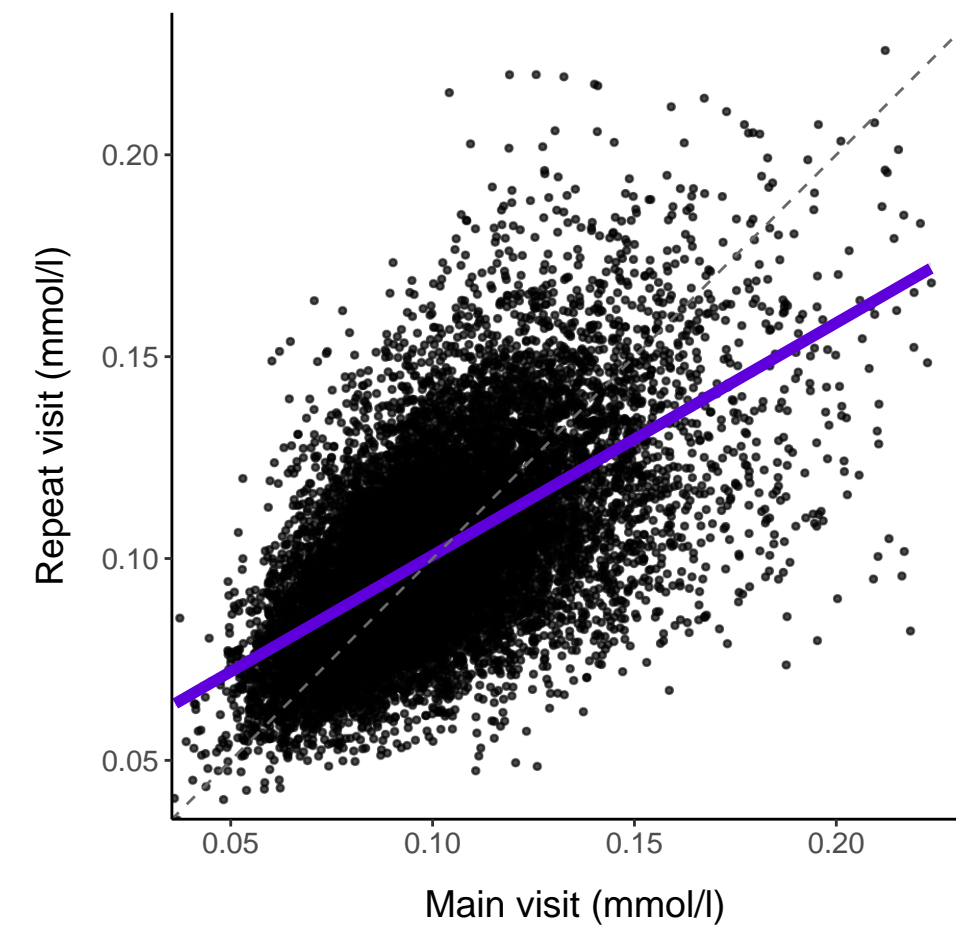
IDL_CE

R: 0.64
y = 0.20 + 0.67x

IDL_FC
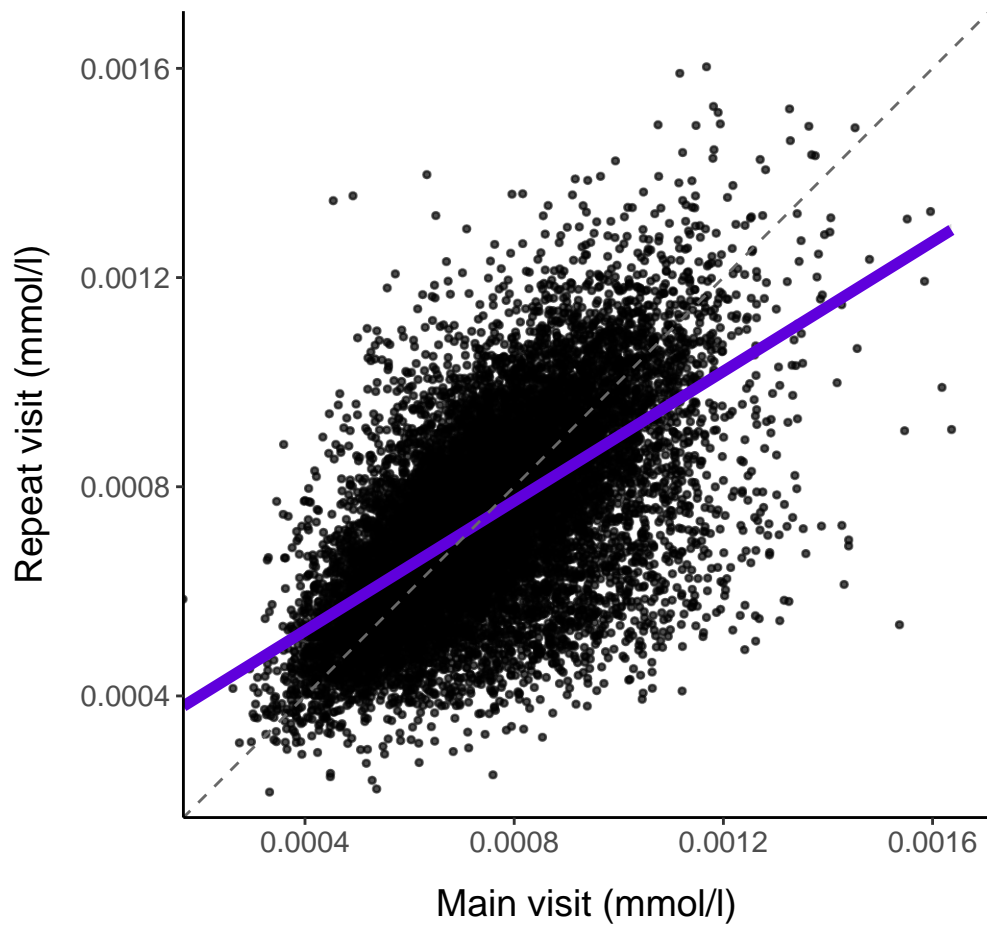
R: 0.63
y = 0.07 + 0.67x

IDL_TG

R: 0.61
y = 0.04 + 0.58x
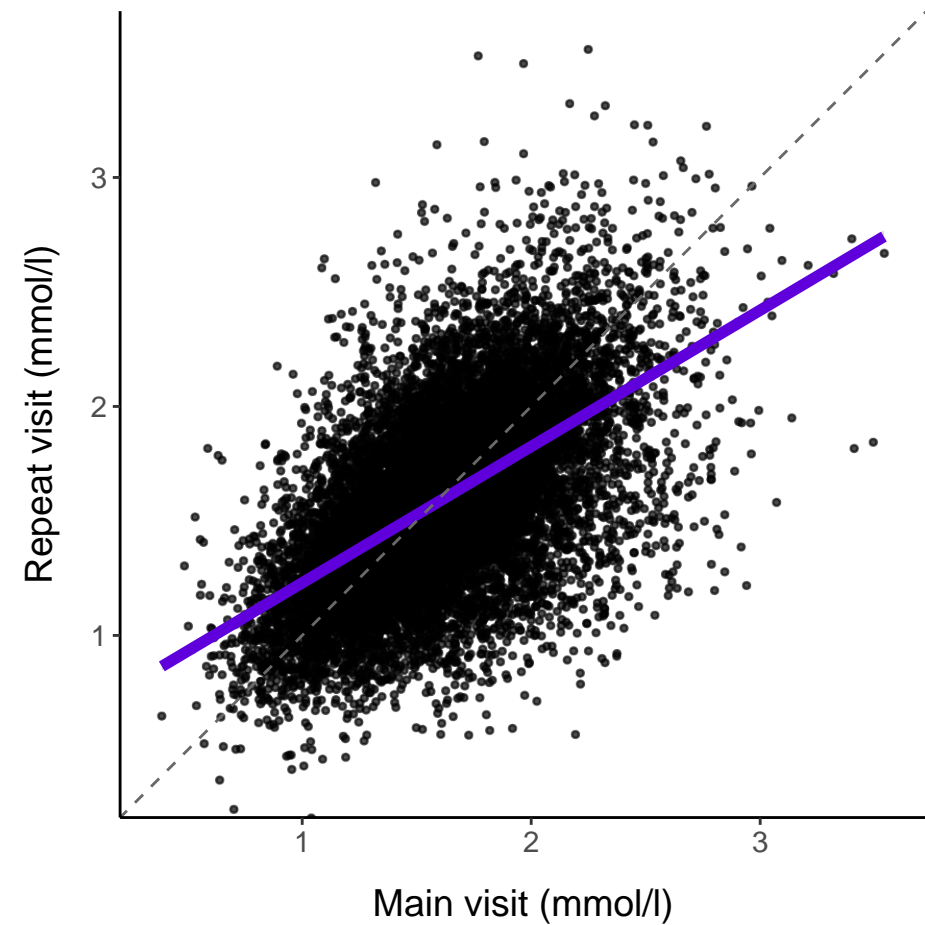
Large LDL (average diameter 25.5 nm)

L_LDL_P

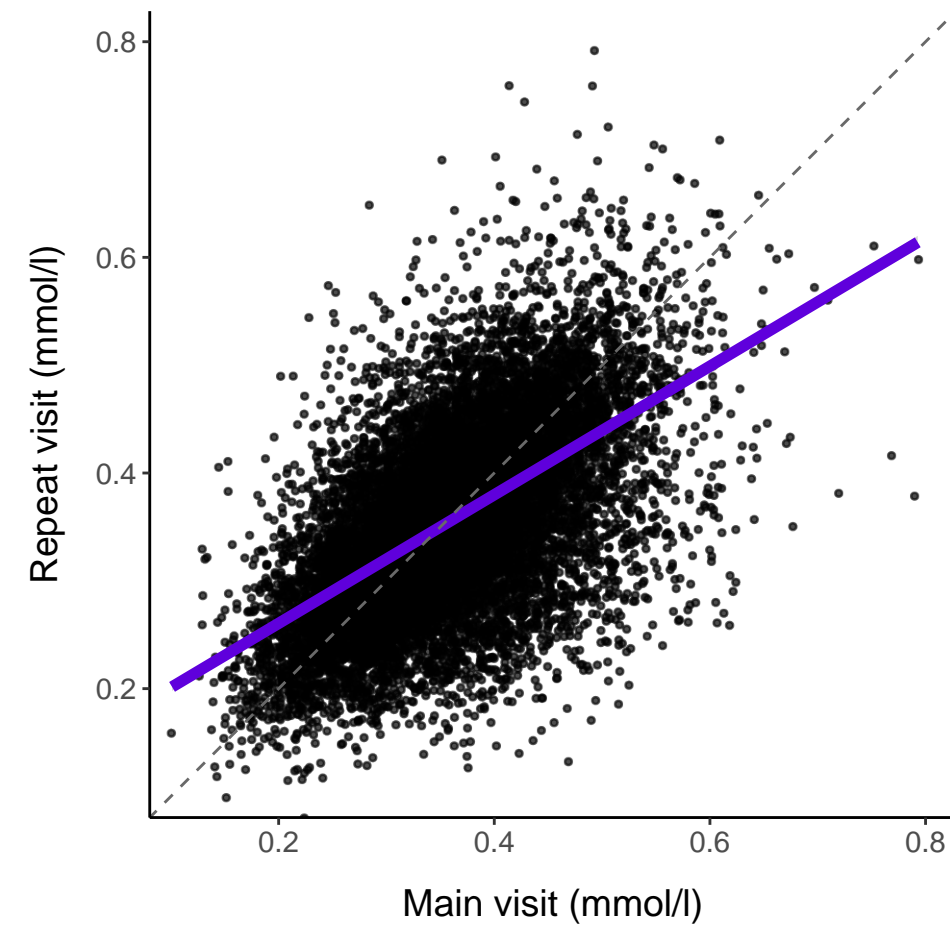R: 0.61
y = 0.00 + 0.62x

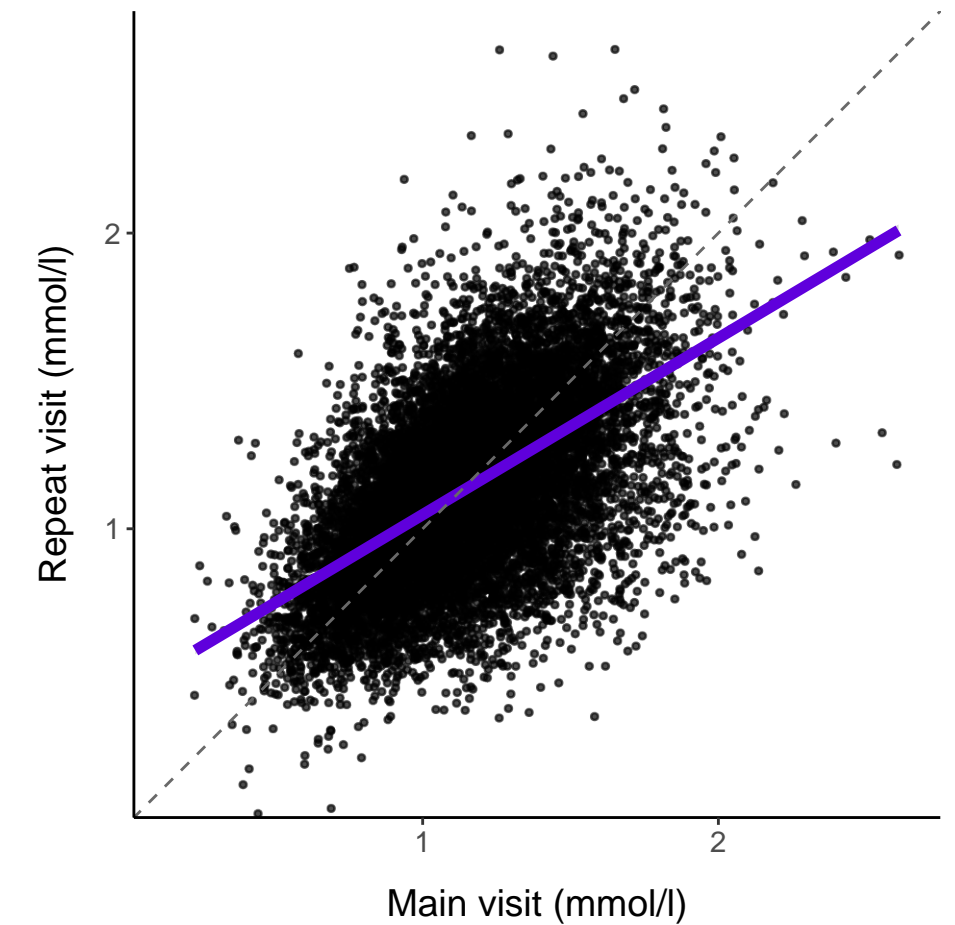## L_LDL_L

R: 0.58
y = 0.63 + 0.60x
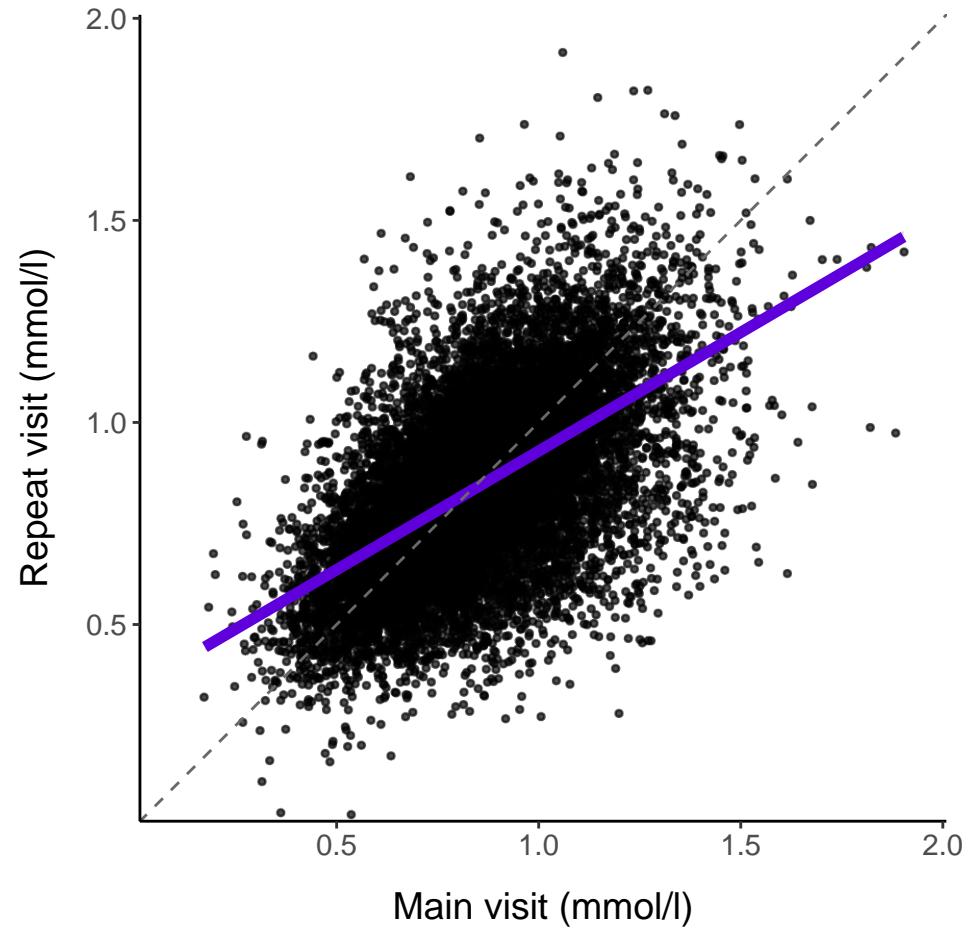
L_LDL_PL

R: 0.58
y = 0.14 + 0.60x

L_LDL_C

R: 0.58
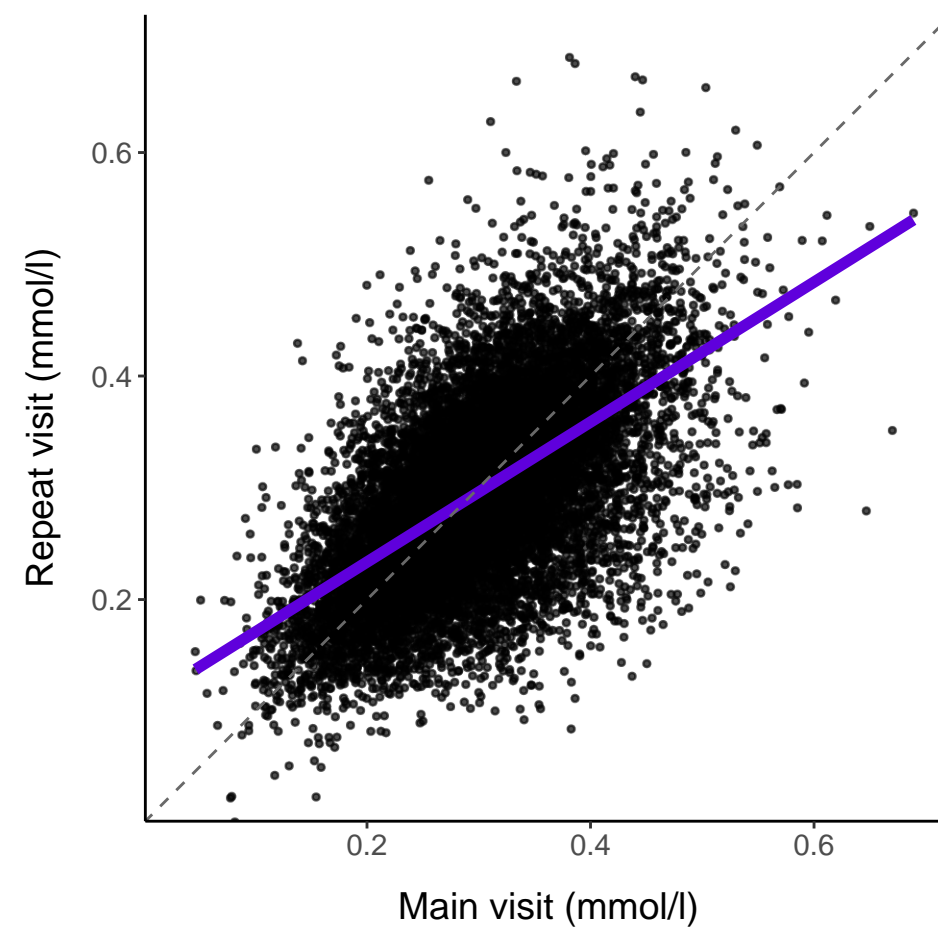y = 0.45 + 0.60x

L_LDL_CE
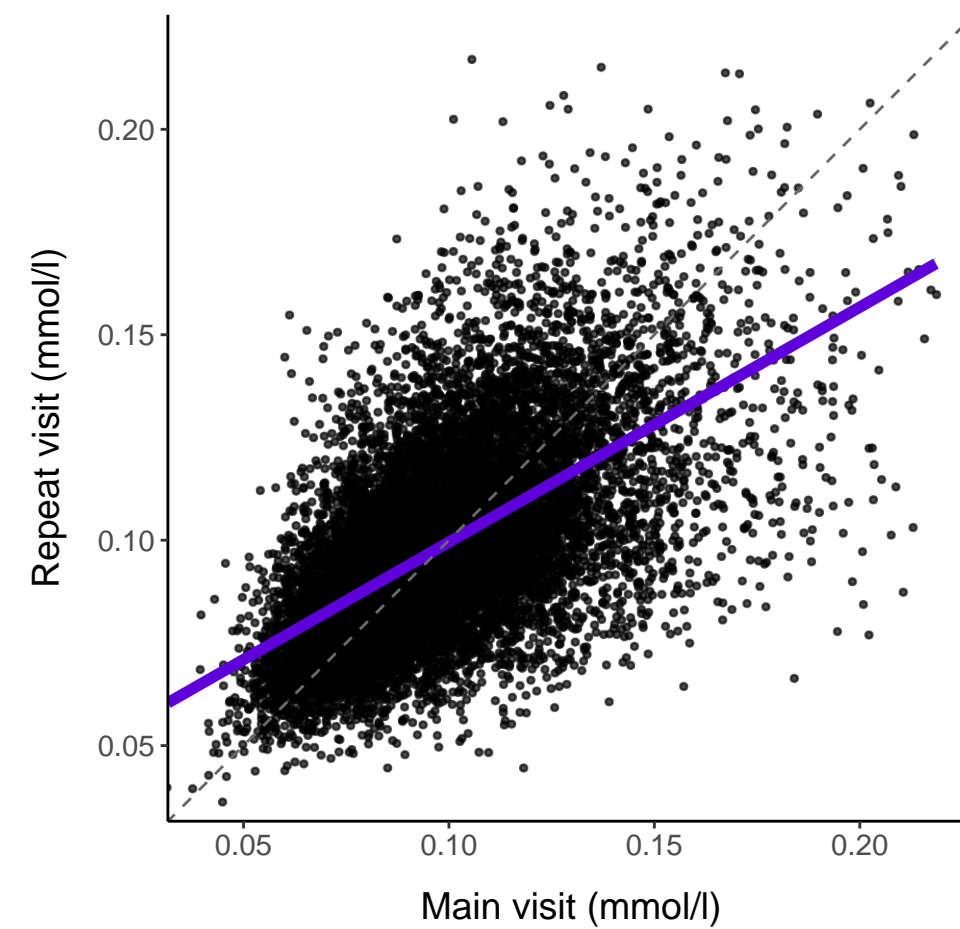
R: 0.57
y = 0.34 + 0.59x

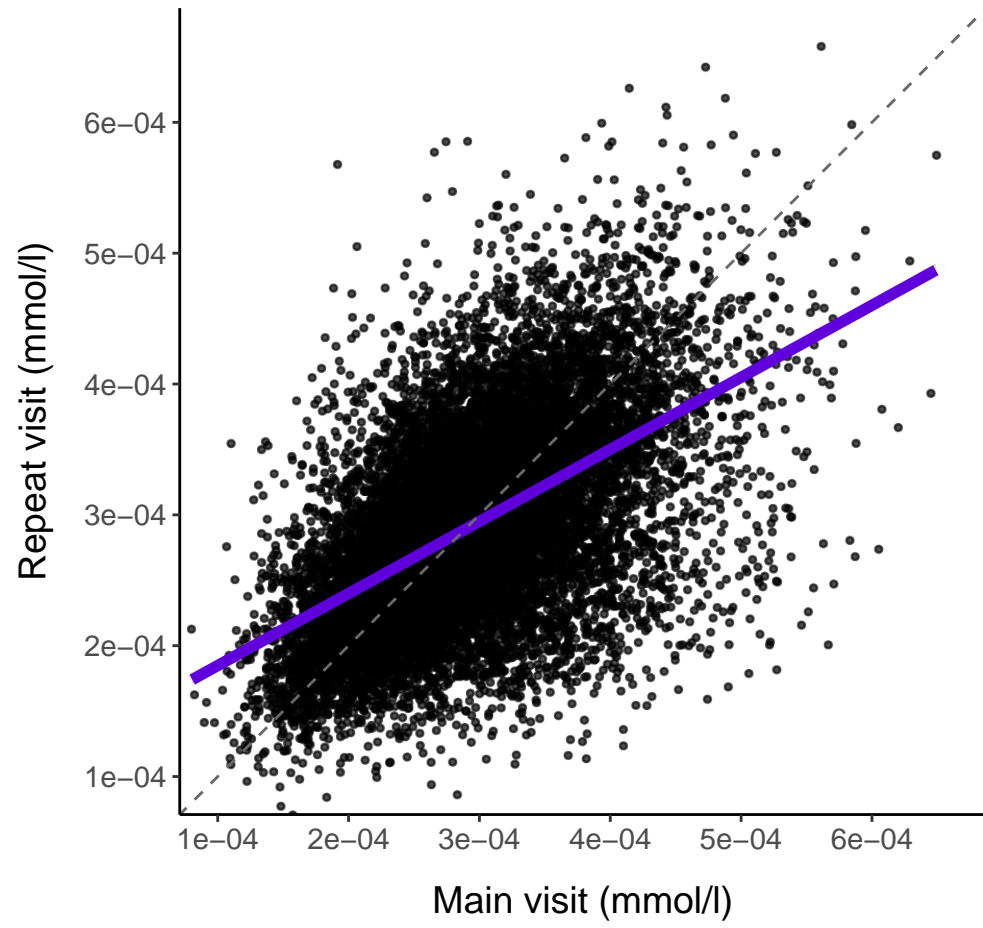## L_LDL_FC

R: 0.6
y = 0.11 + 0.63x

L_LDL_TG

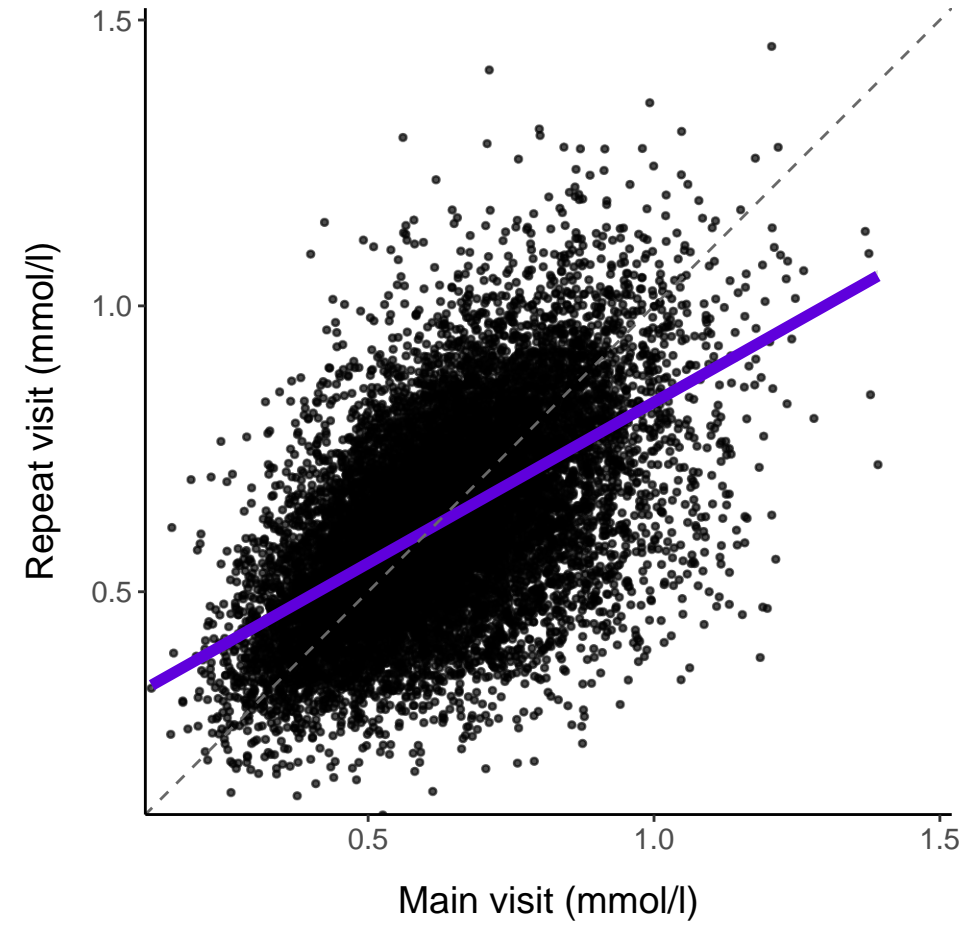R: 0.6
y = 0.04 + 0.57x

Medium LDL (average diameter 23 nm)

M_LDL_P
R: 0.55
y = 0.00 + 0.55x
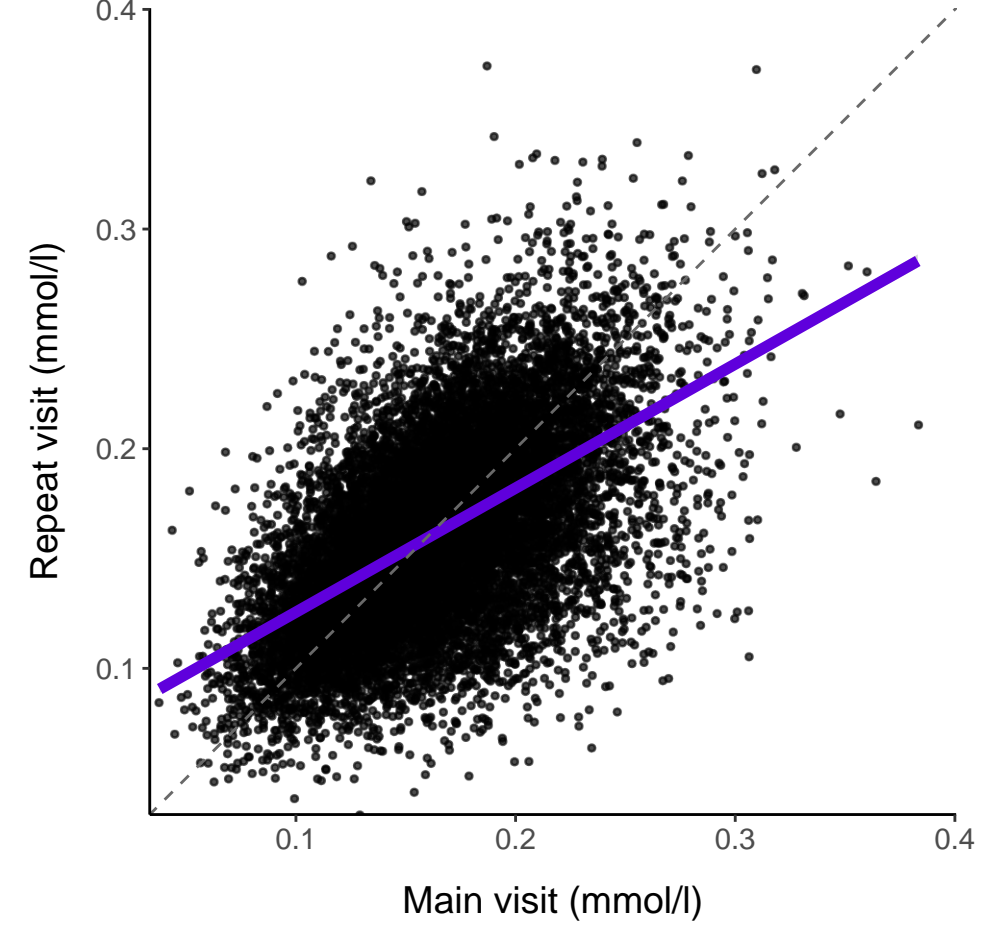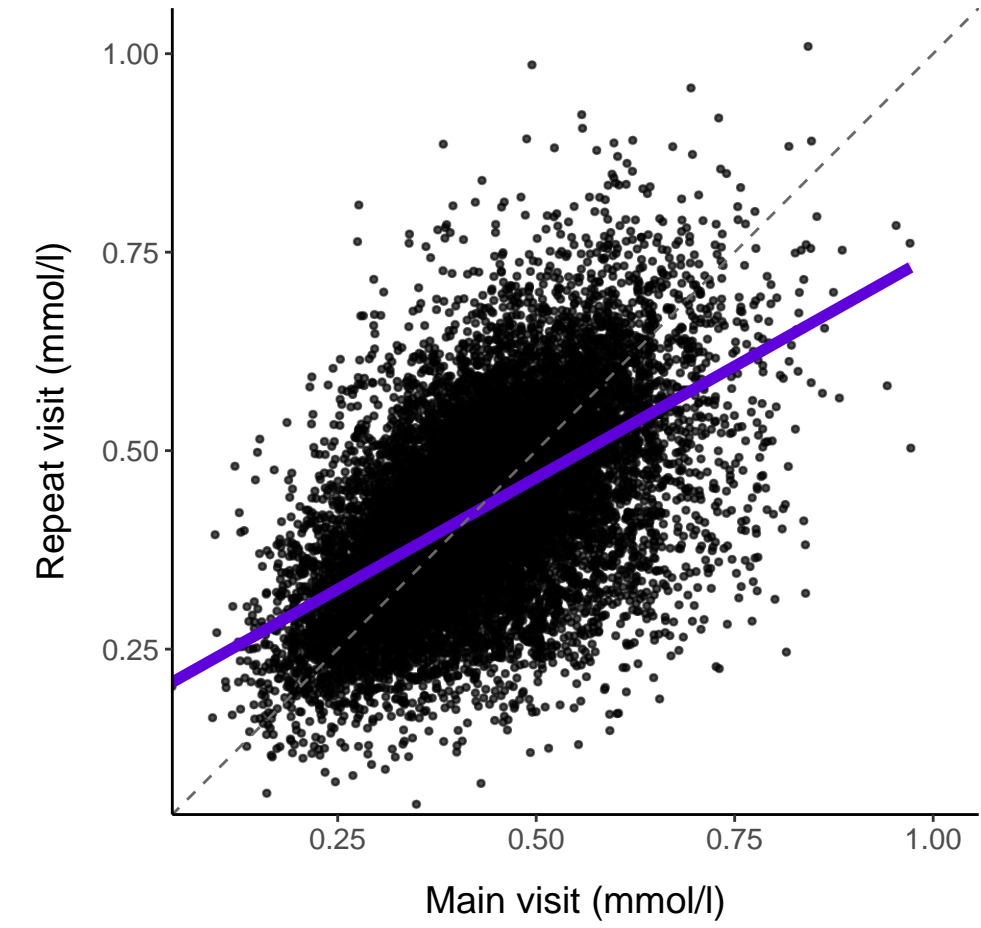
M_LDL_L
R: 0.56
y = 0.27 + 0.56x
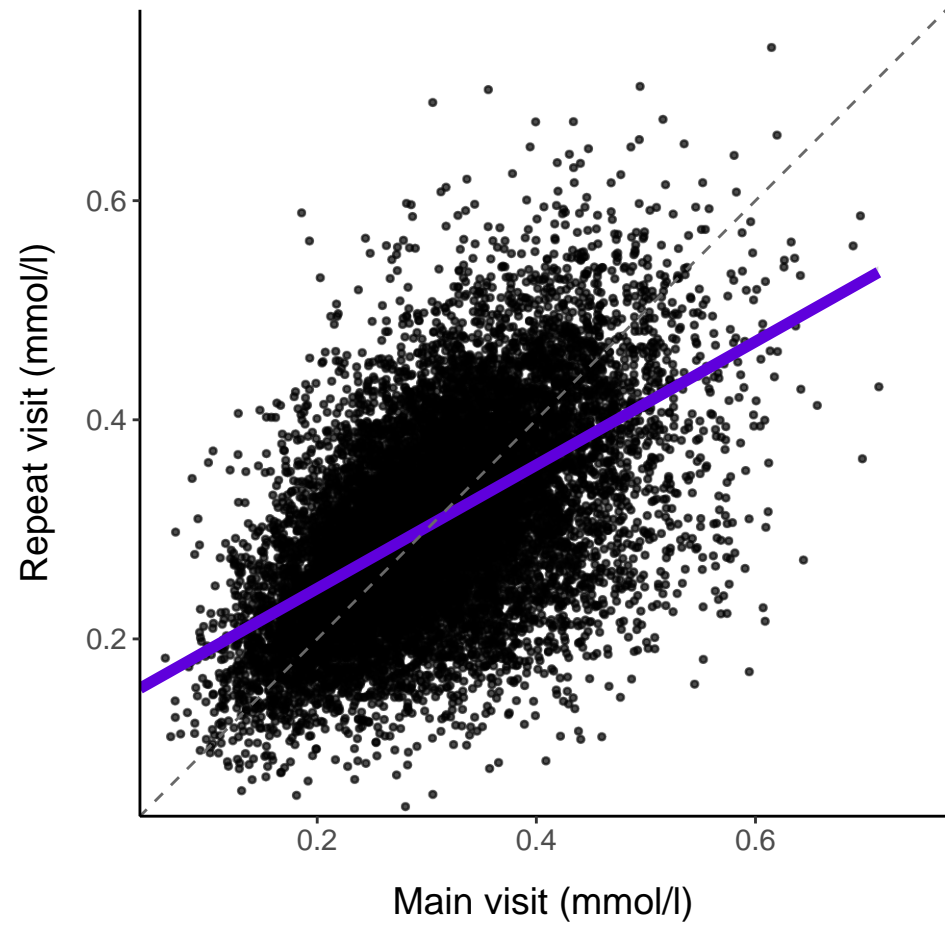
M_LDL_PL
R: 0.56
y = 0.07 + 0.56x

M_LDL_C
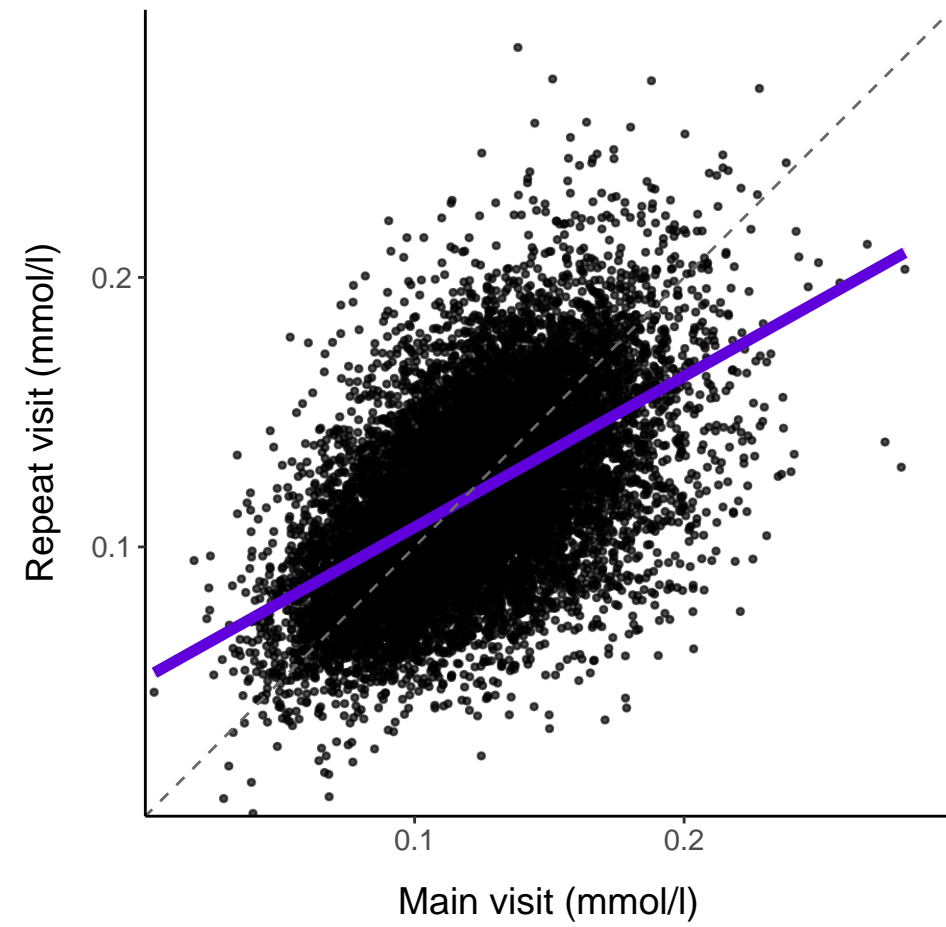R: 0.55
y = 0.18 + 0.56x

M_LDL_CE
R: 0.56
y = 0.13 + 0.56x

M_LDL_FC
R: 0.55
y = 0.05 + 0.56x

M_LDL_TG
R: 0.62
y = 0.01 + 0.58x
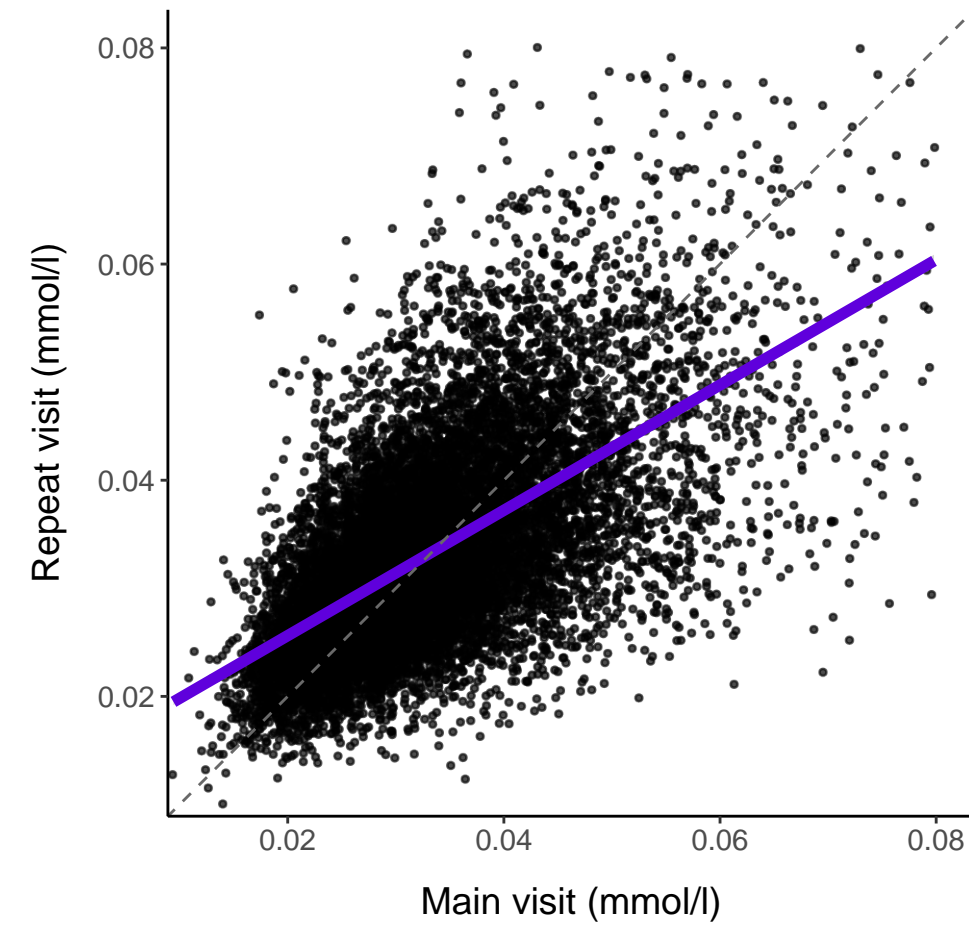
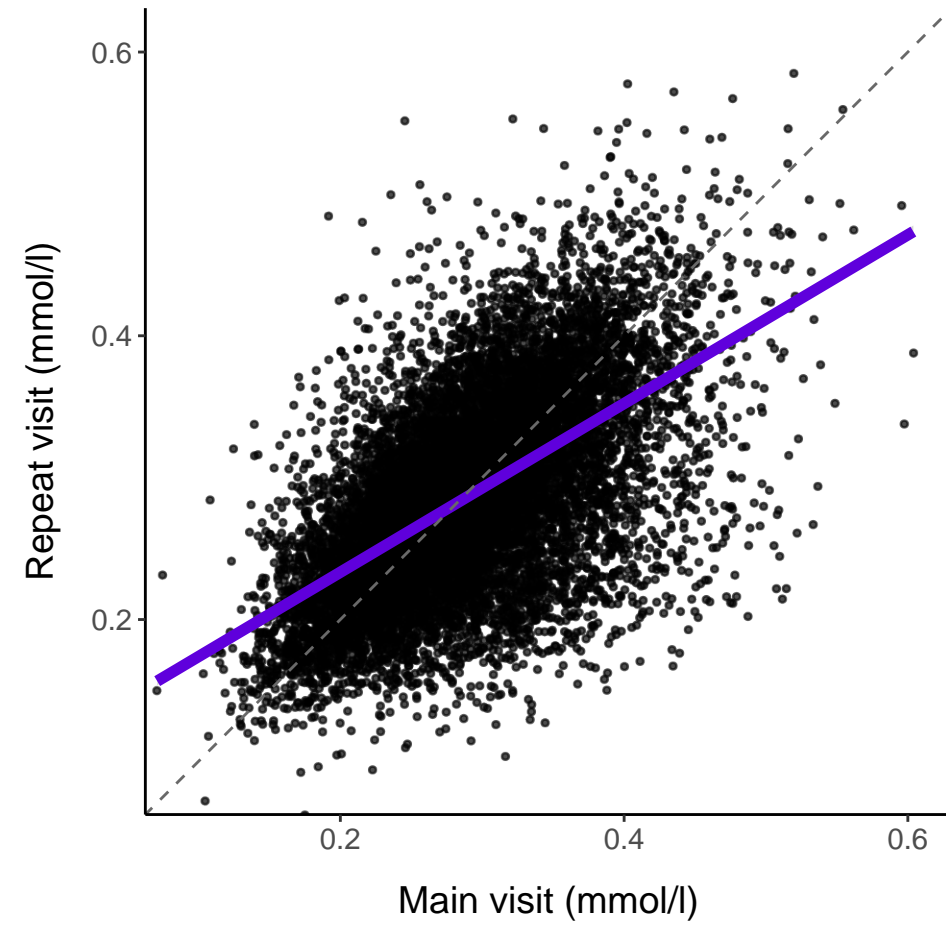# Small LDL (average diameter 18.7 nm)
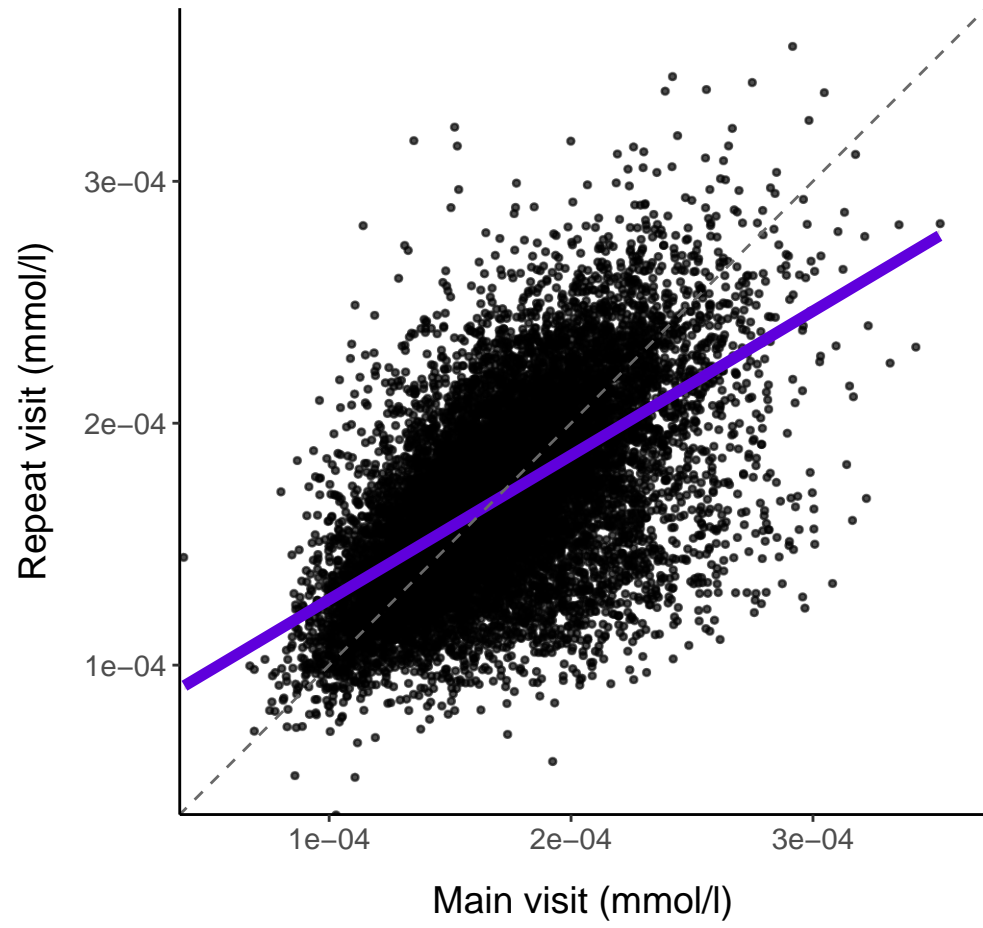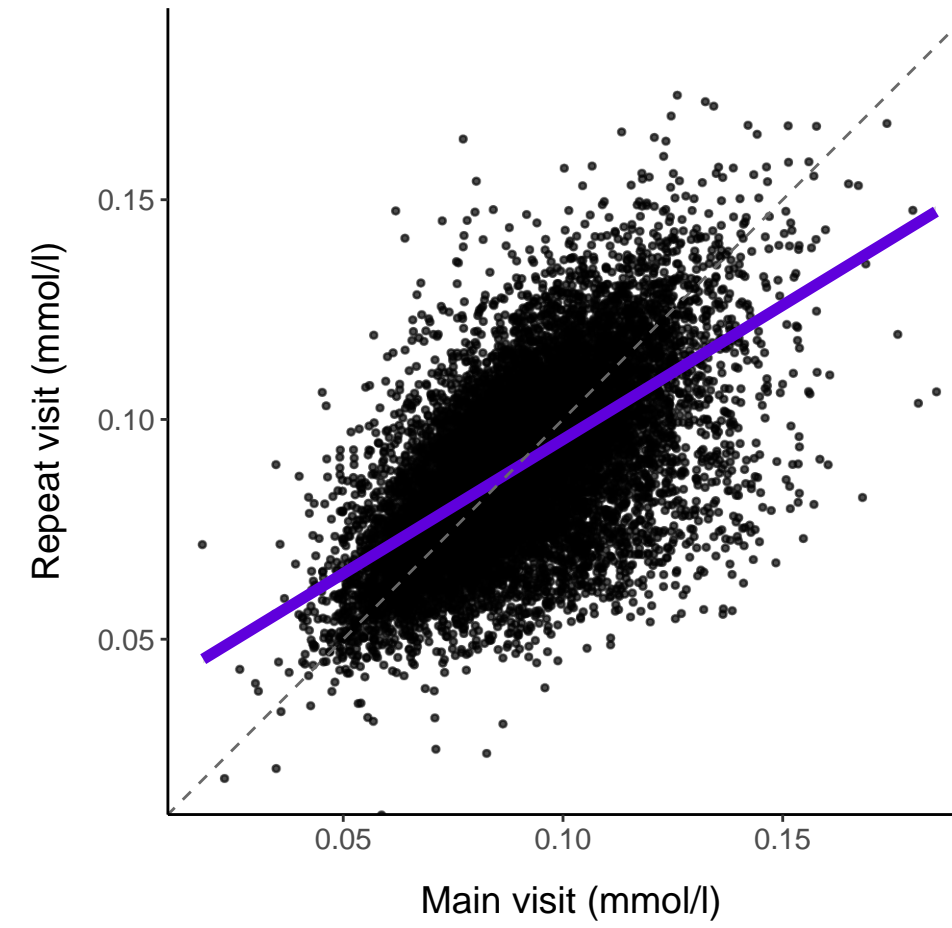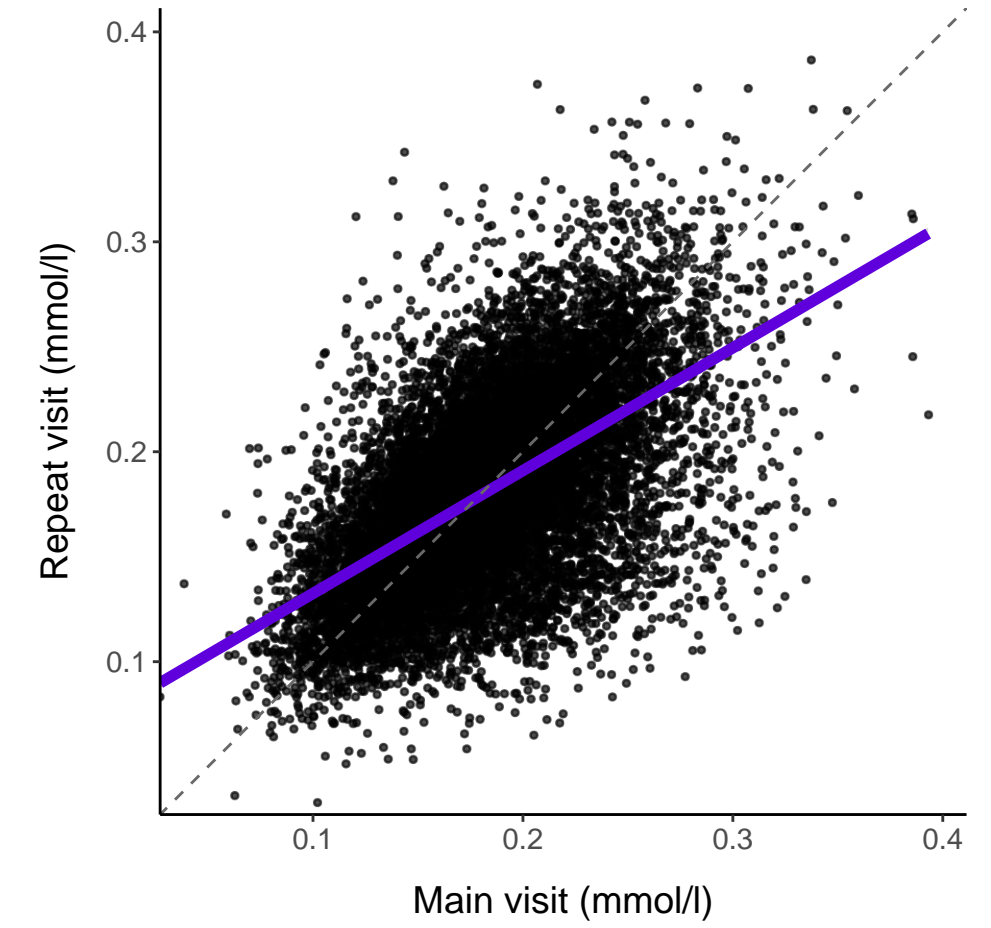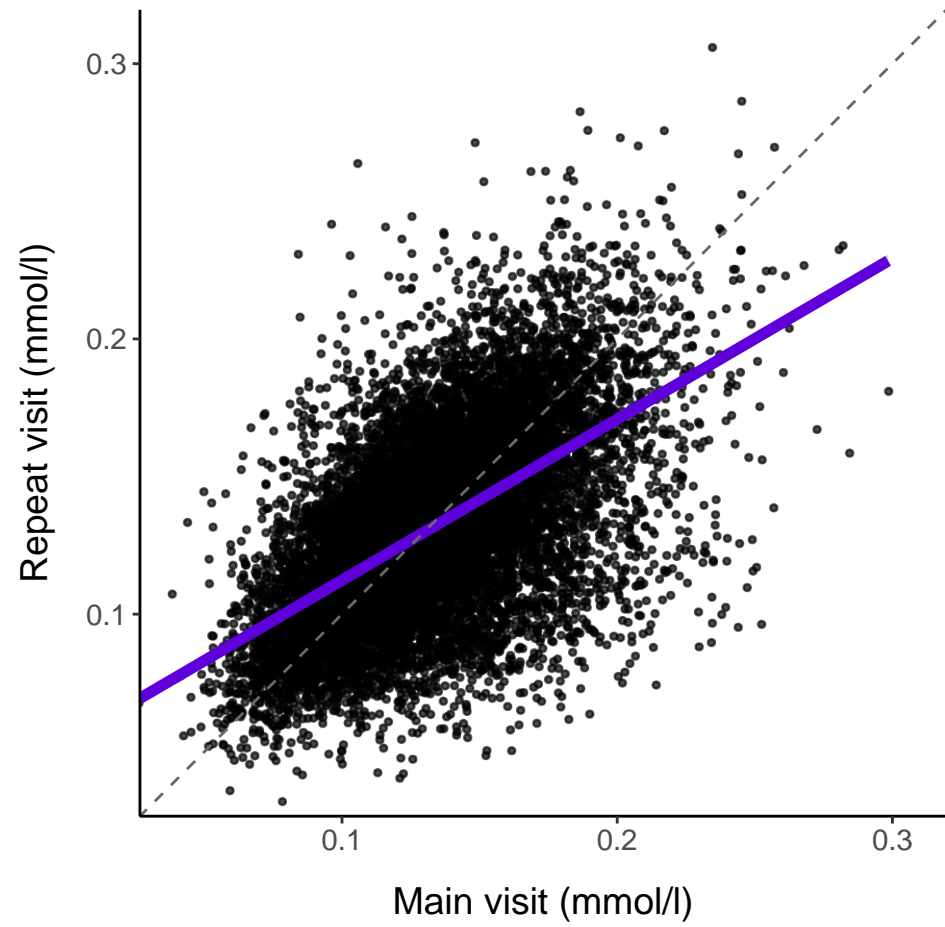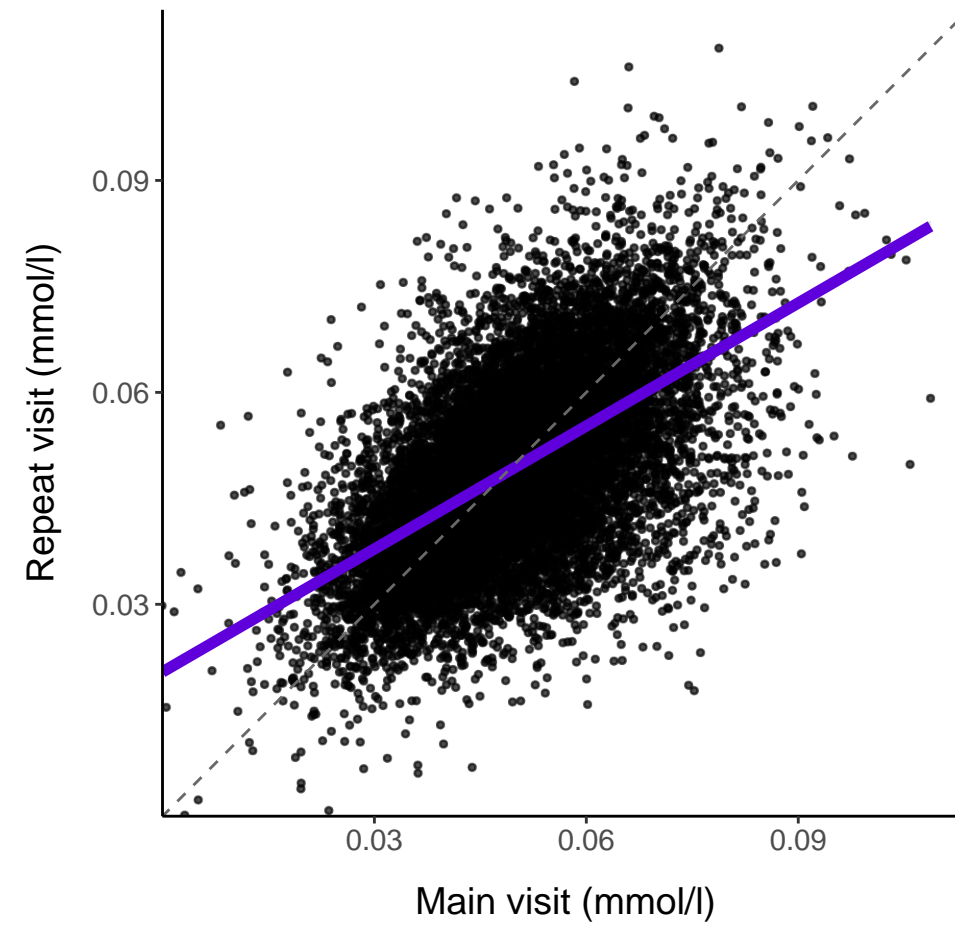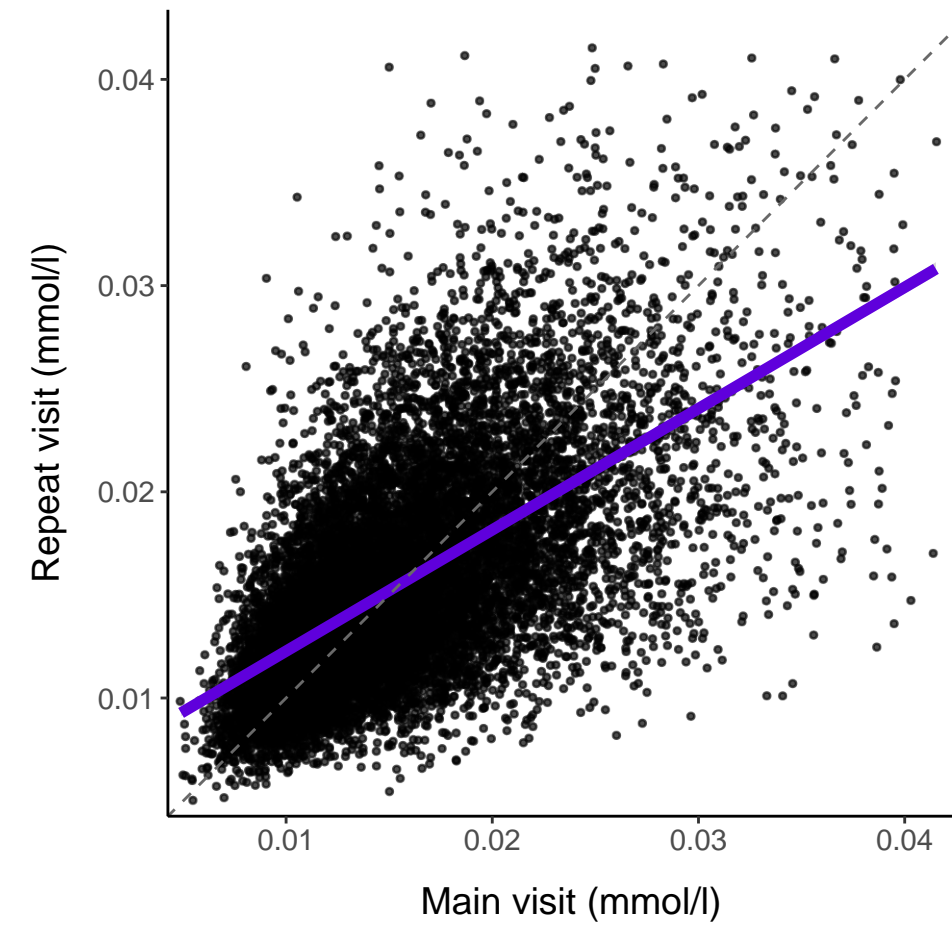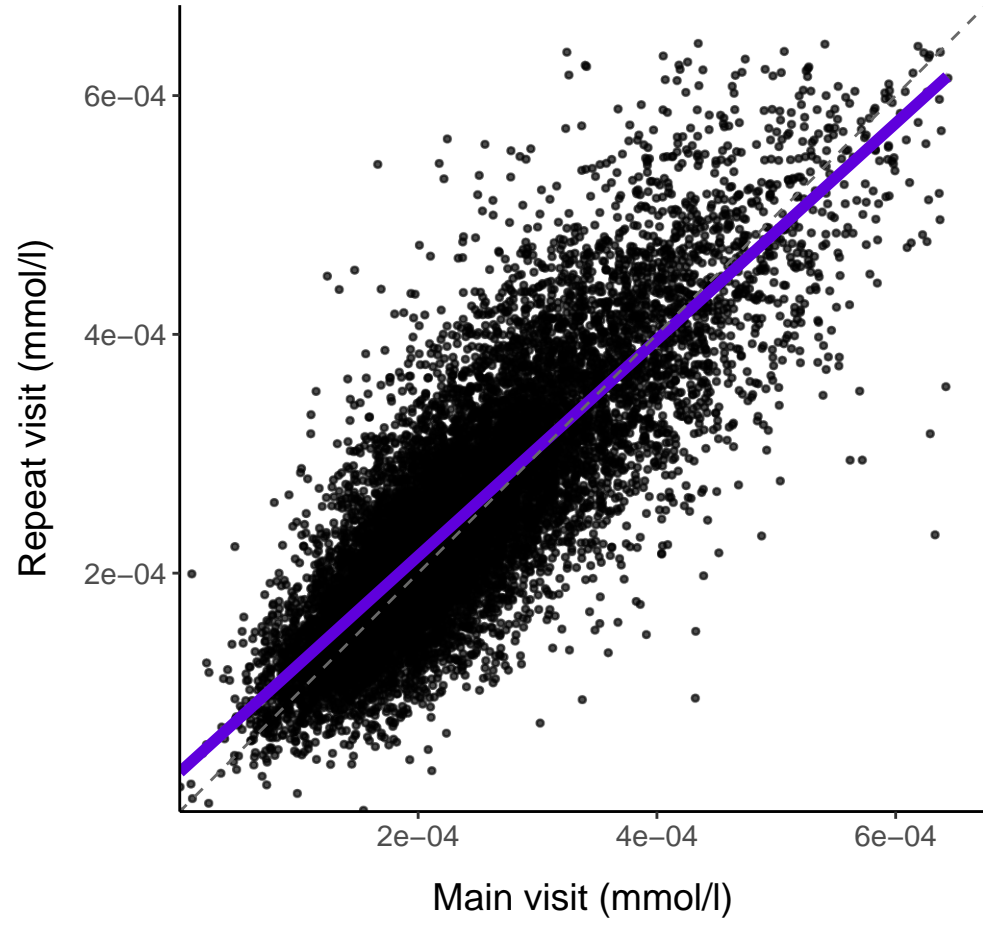
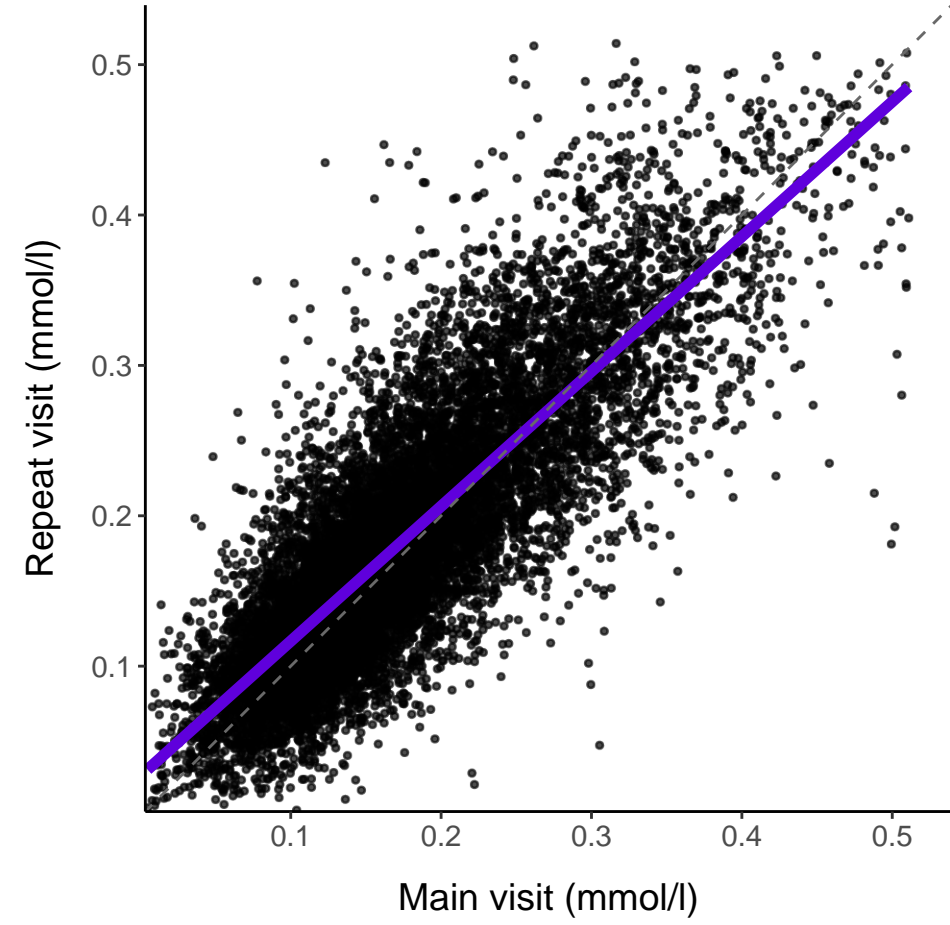# Very large HDL (average diameter 14.3 nm)

XL_HDL_P
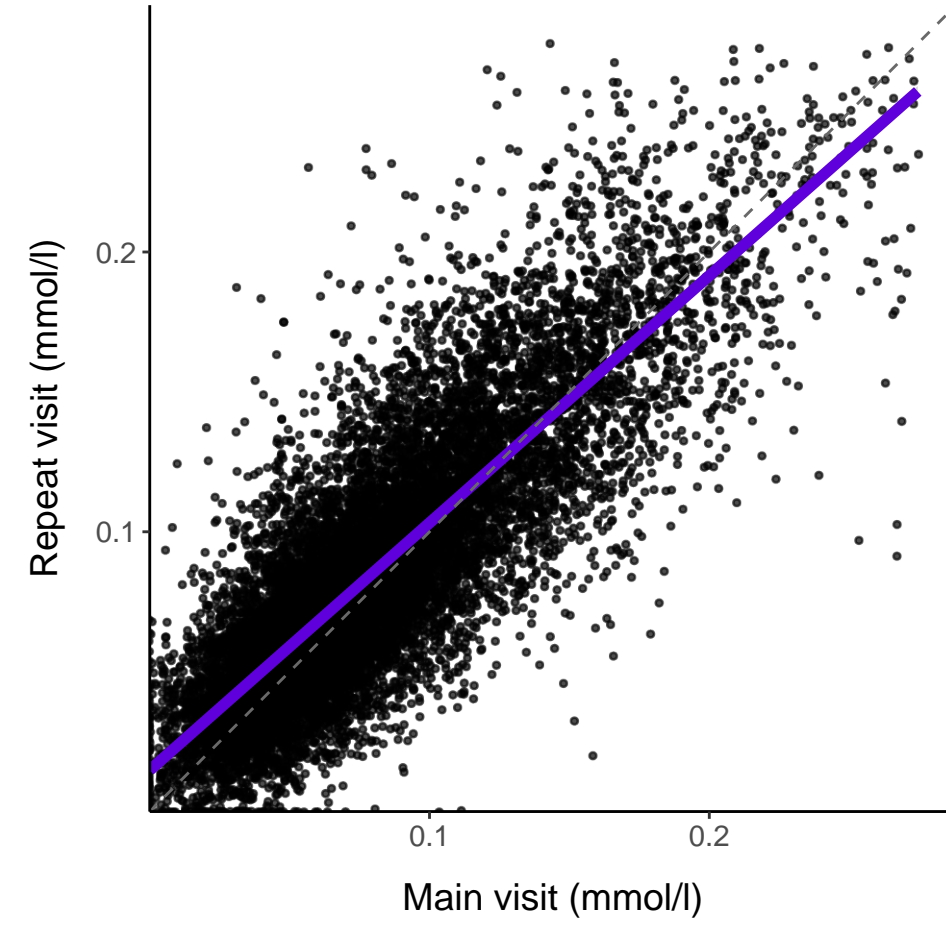R: 0.83
y = 0.00 + 0.91x

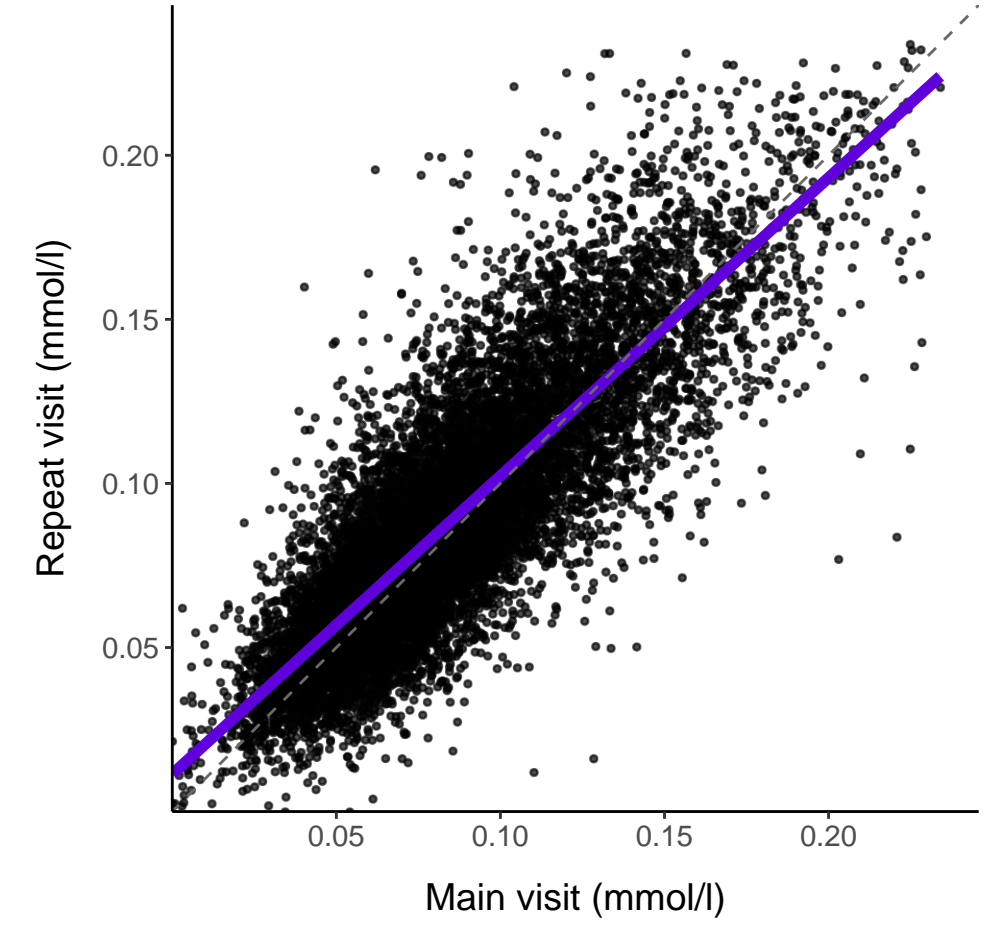**XL_HDL_L**
R: 0.83
y = 0.03 + 0.90x
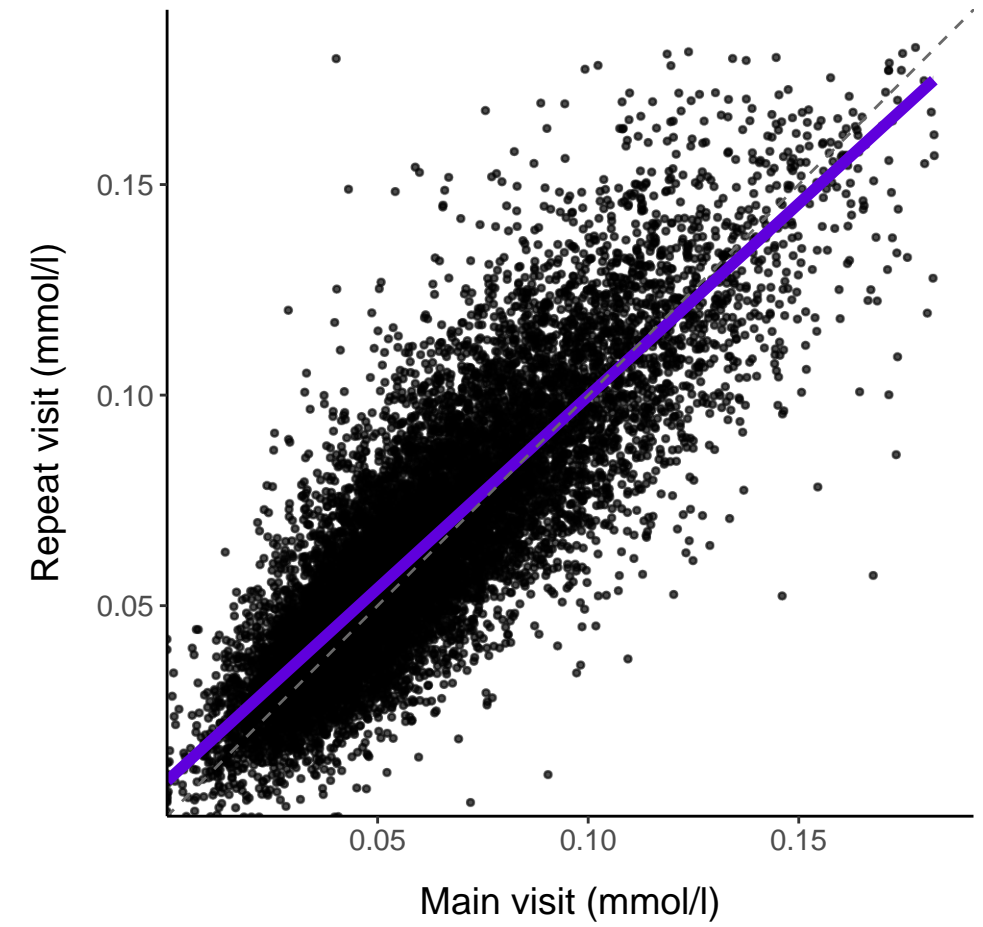
XL_HDL_PL
R: 0.83
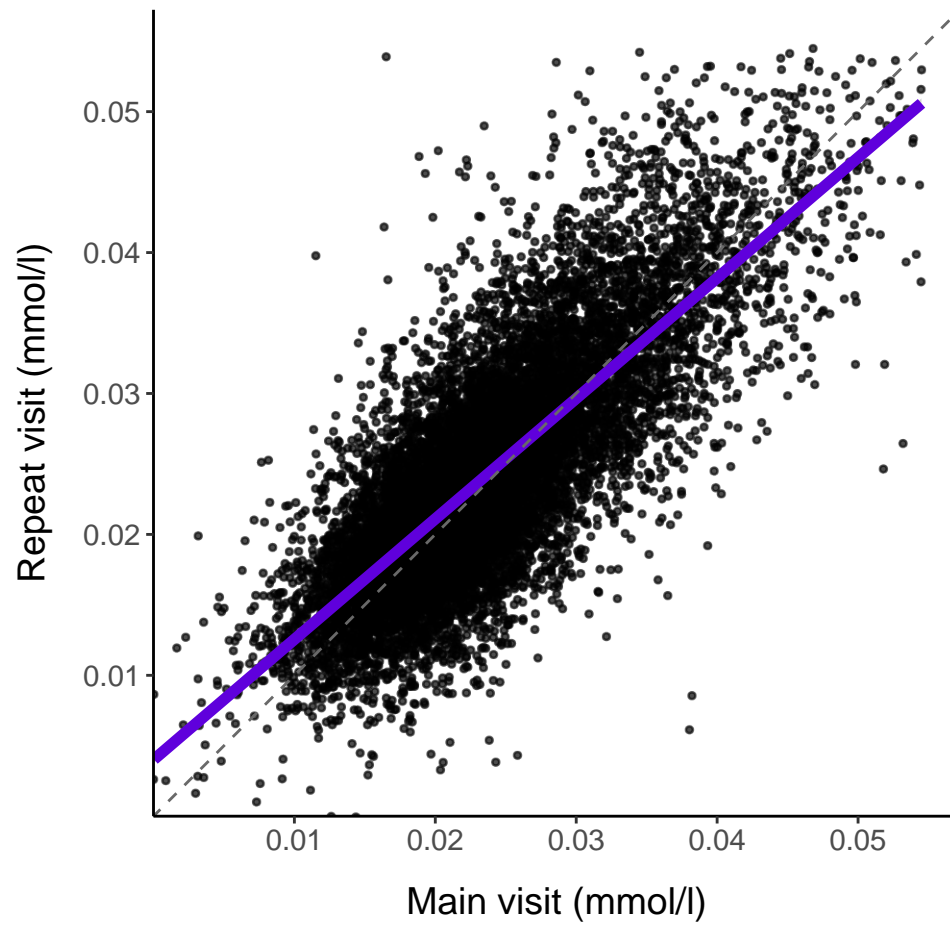y = 0.01 + 0.88x

XL_HDL_C
R: 0.84
y = 0.01 + 0.91x

XL_HDL_CE
R: 0.85
y = 0.01 + 0.91x

XL_HDL_FC
R: 0.78
y = 0.00 + 0.85x

XL_HDL_TG
R: 0.55
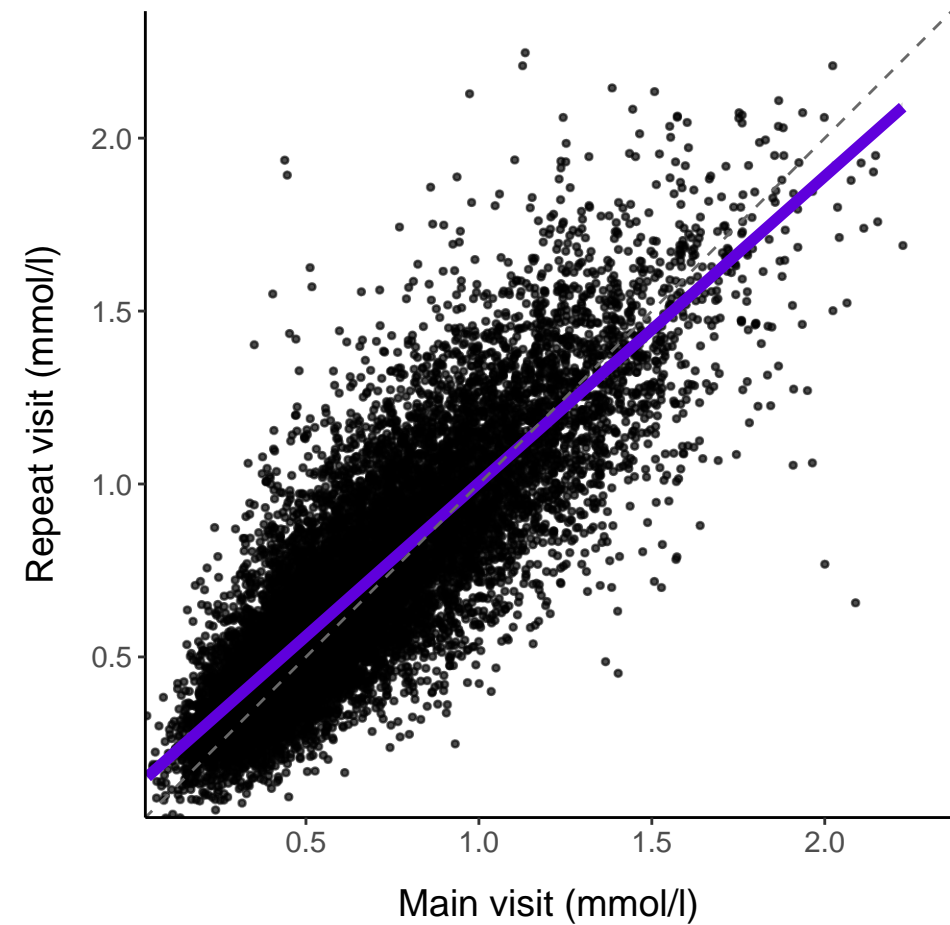y = 0.00 + 0.54x
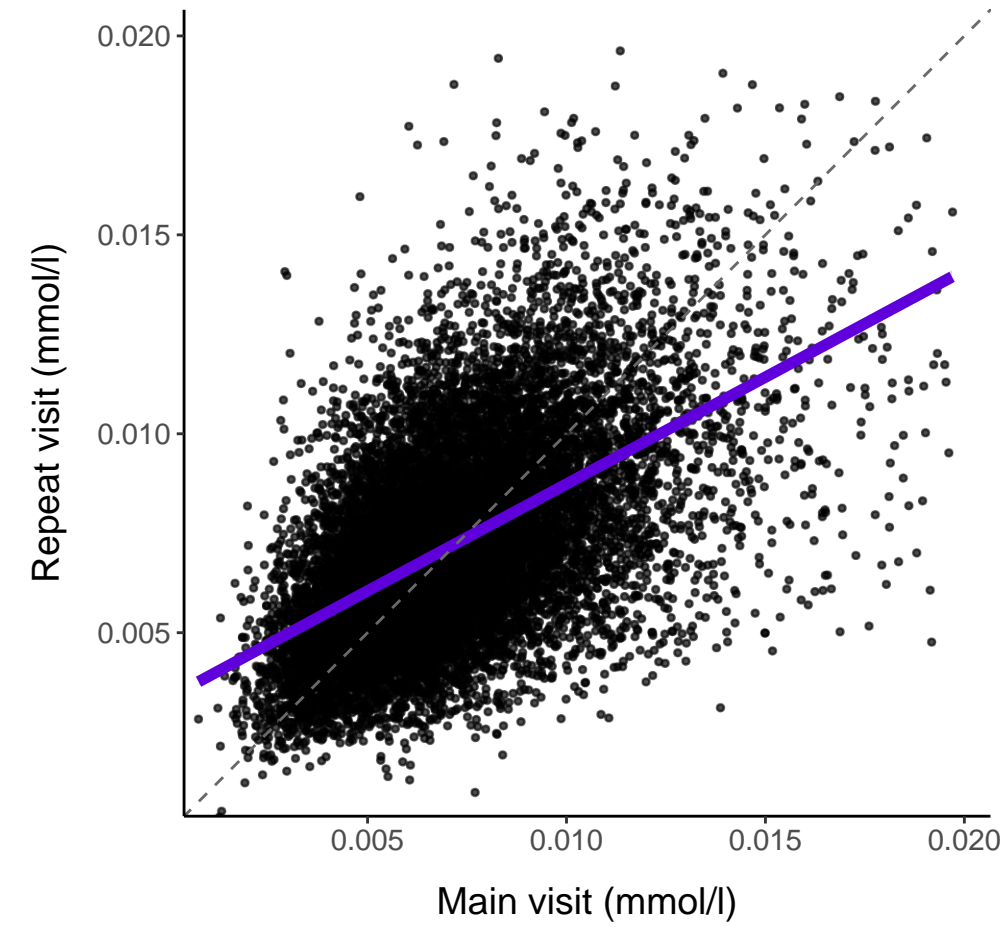
Large HDL (average diameter 12.1 nm)
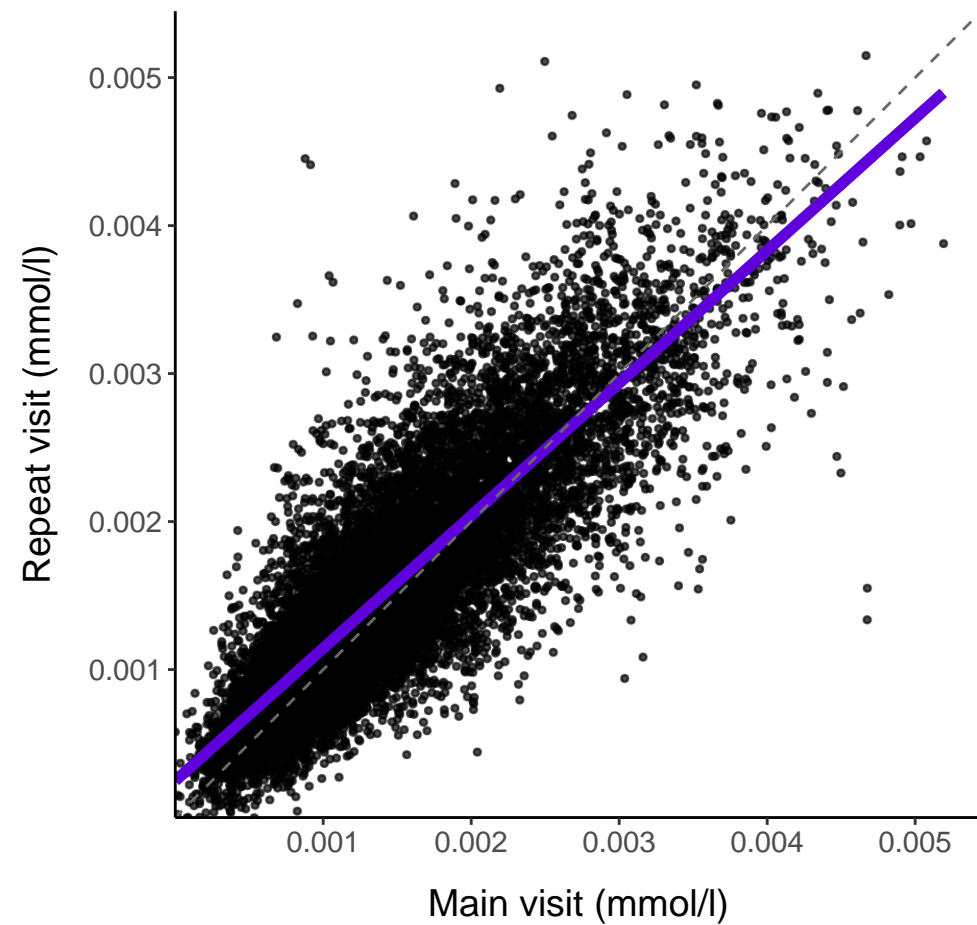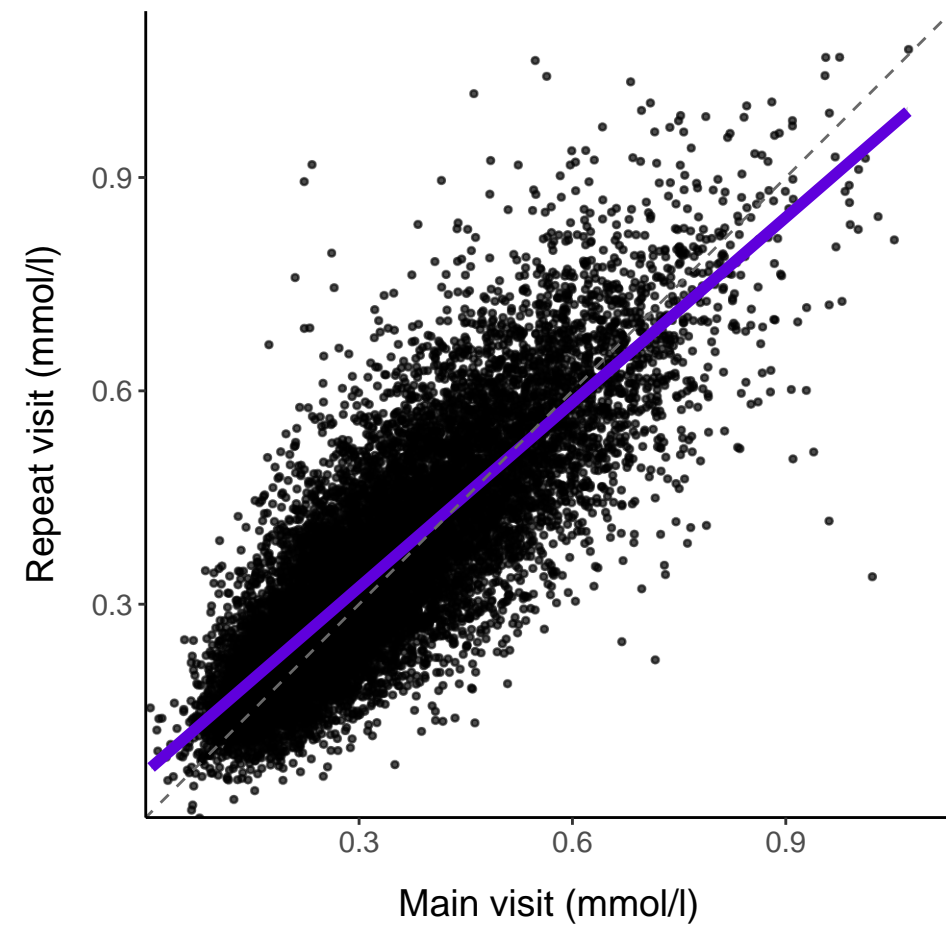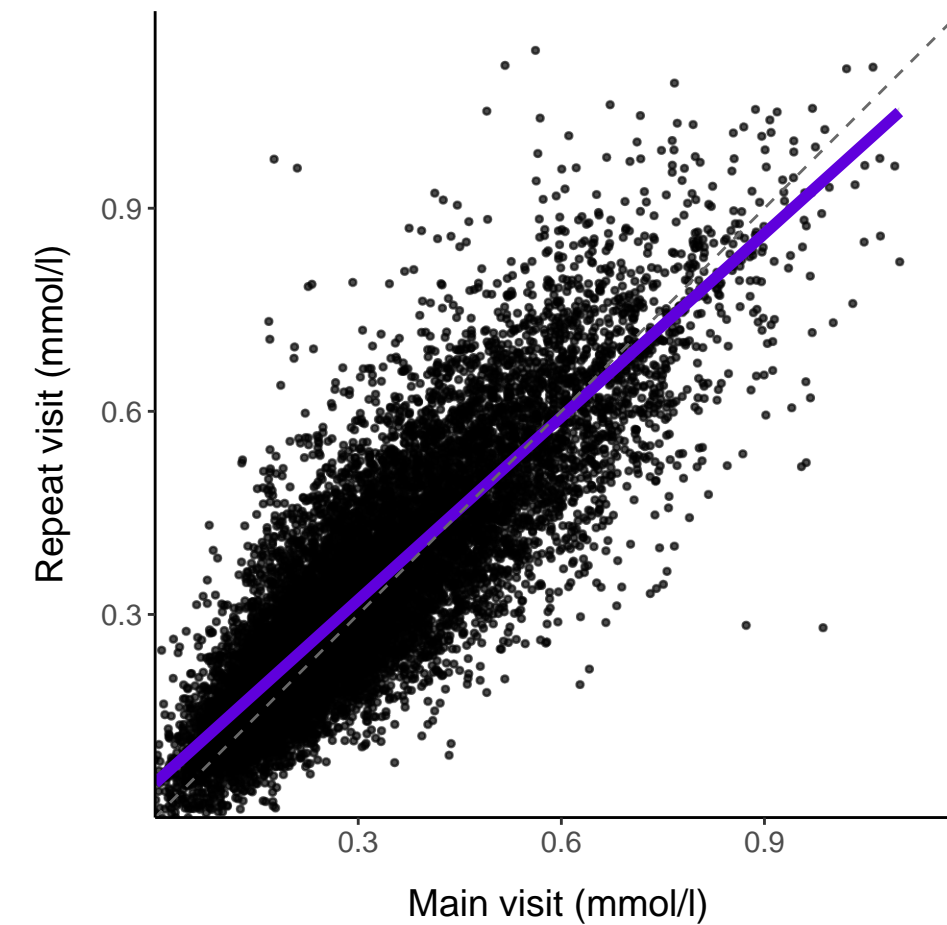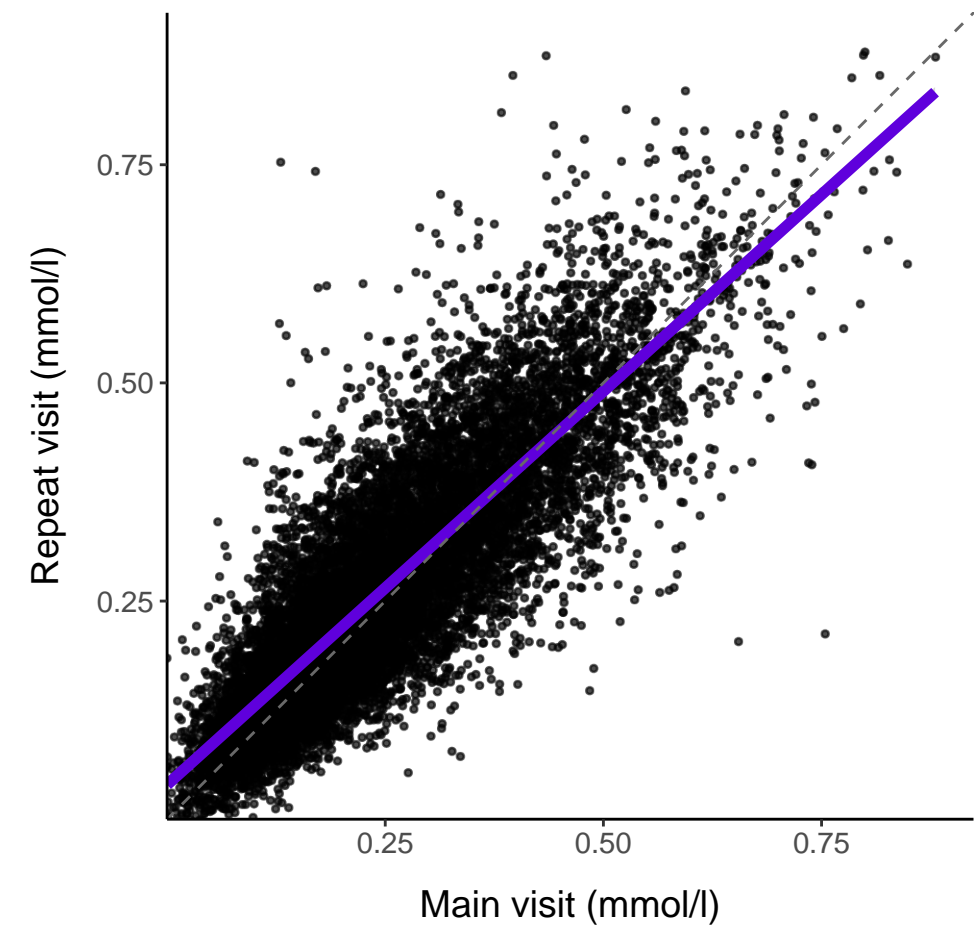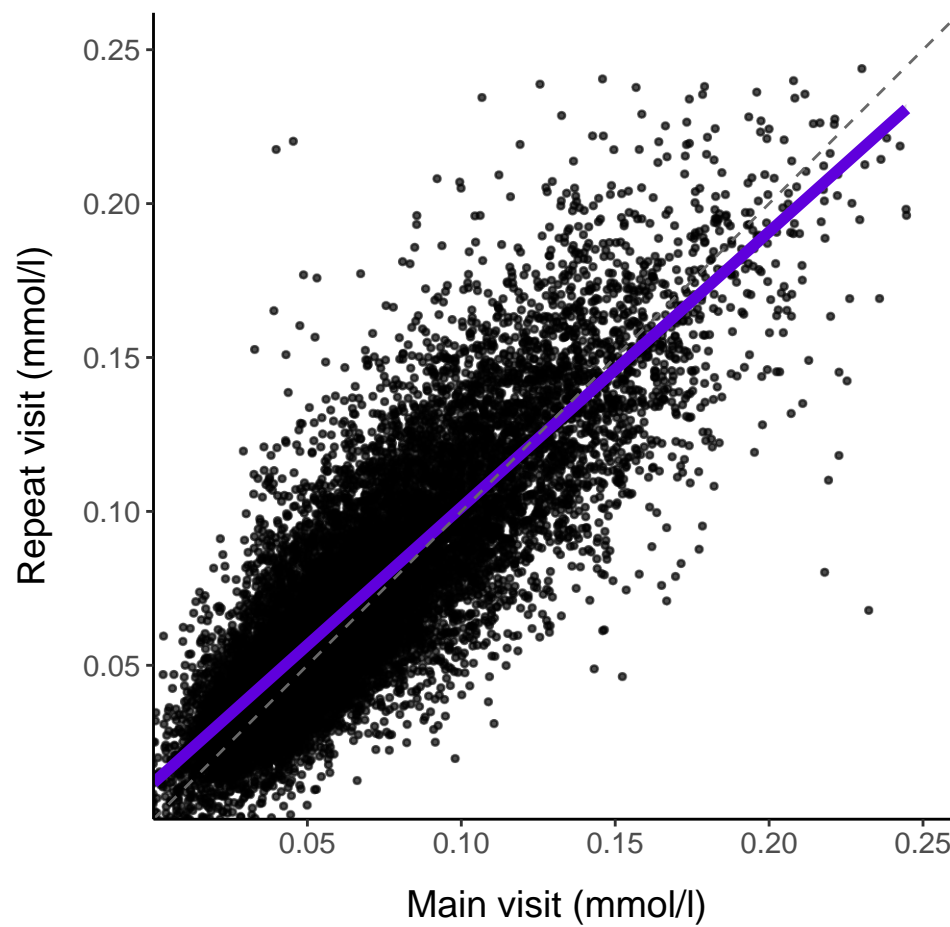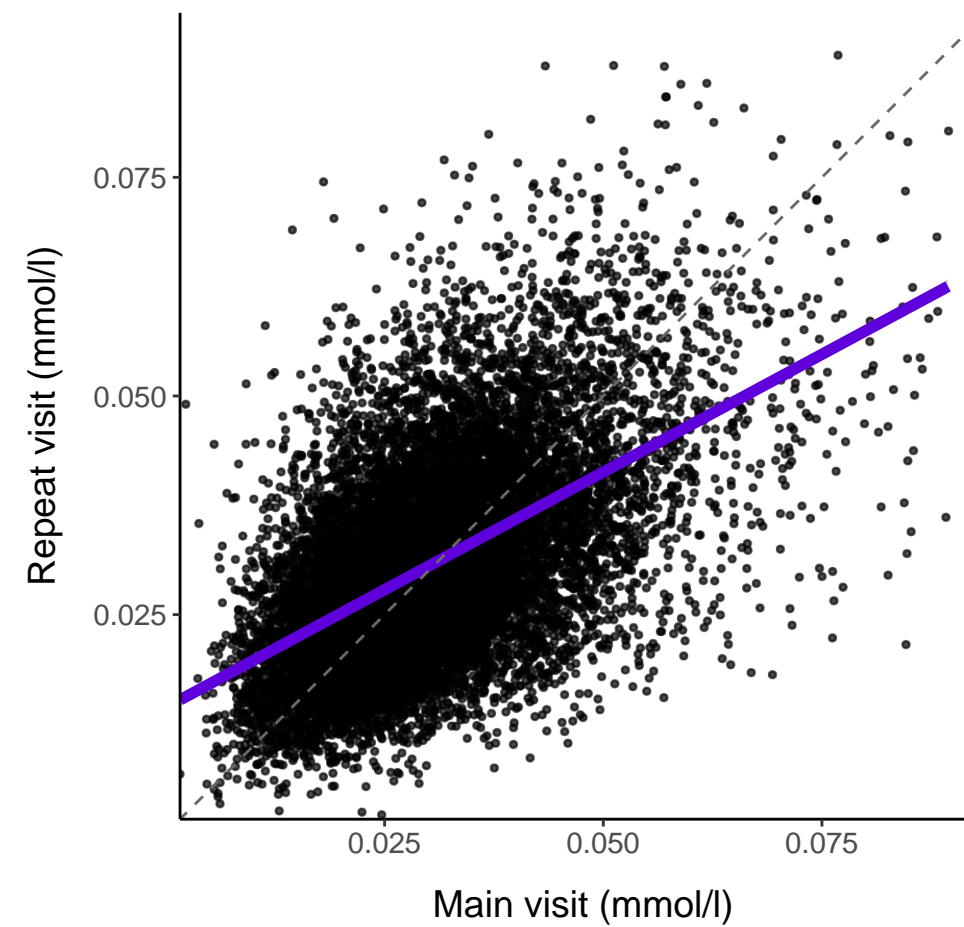
Medium HDL (average diameter 10.9 nm)
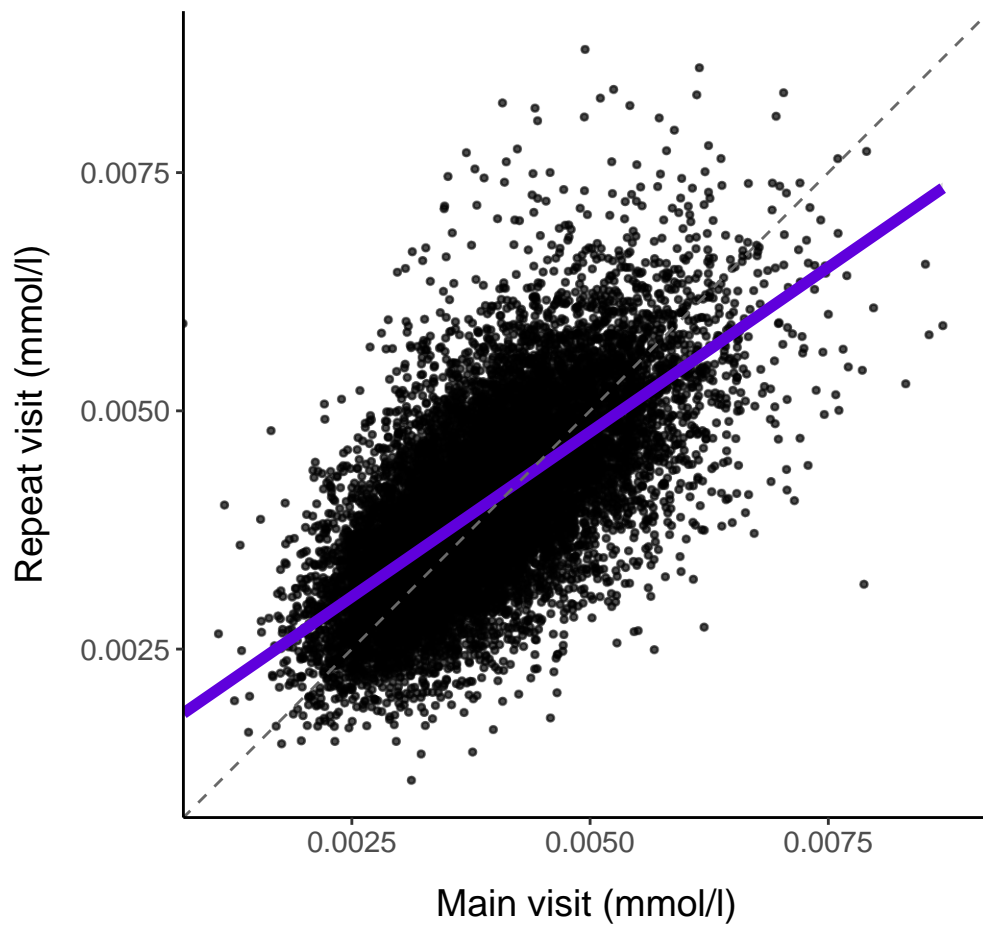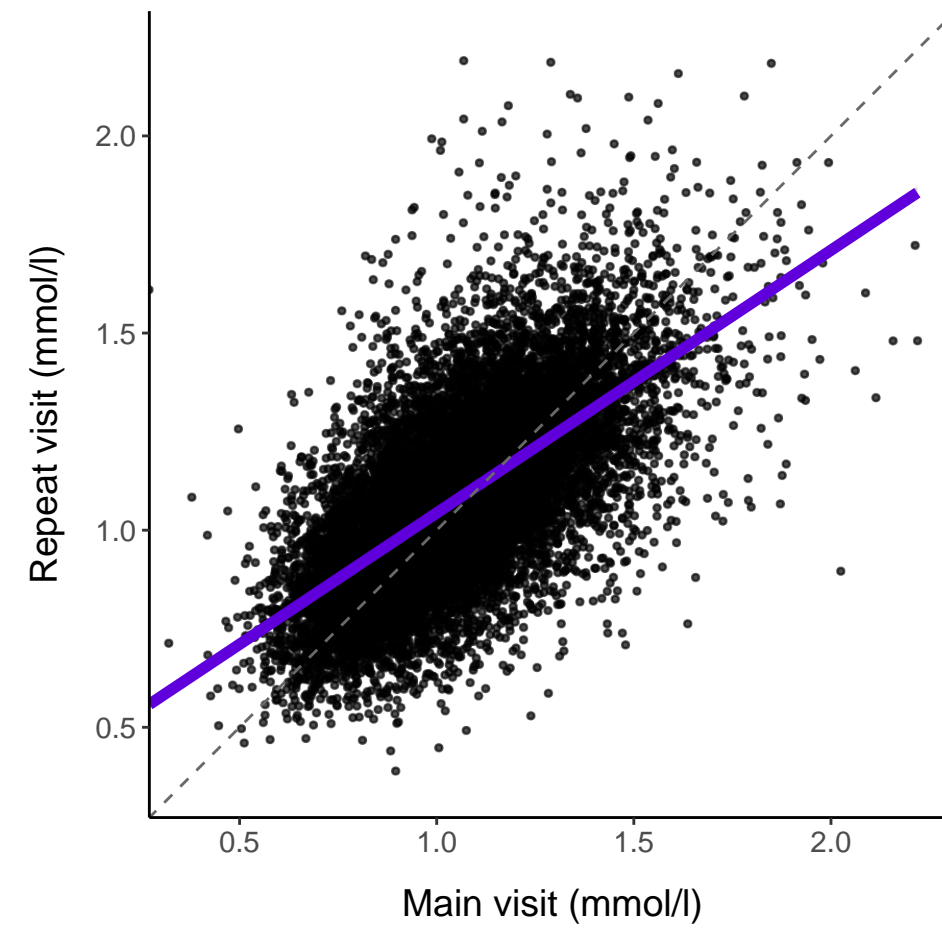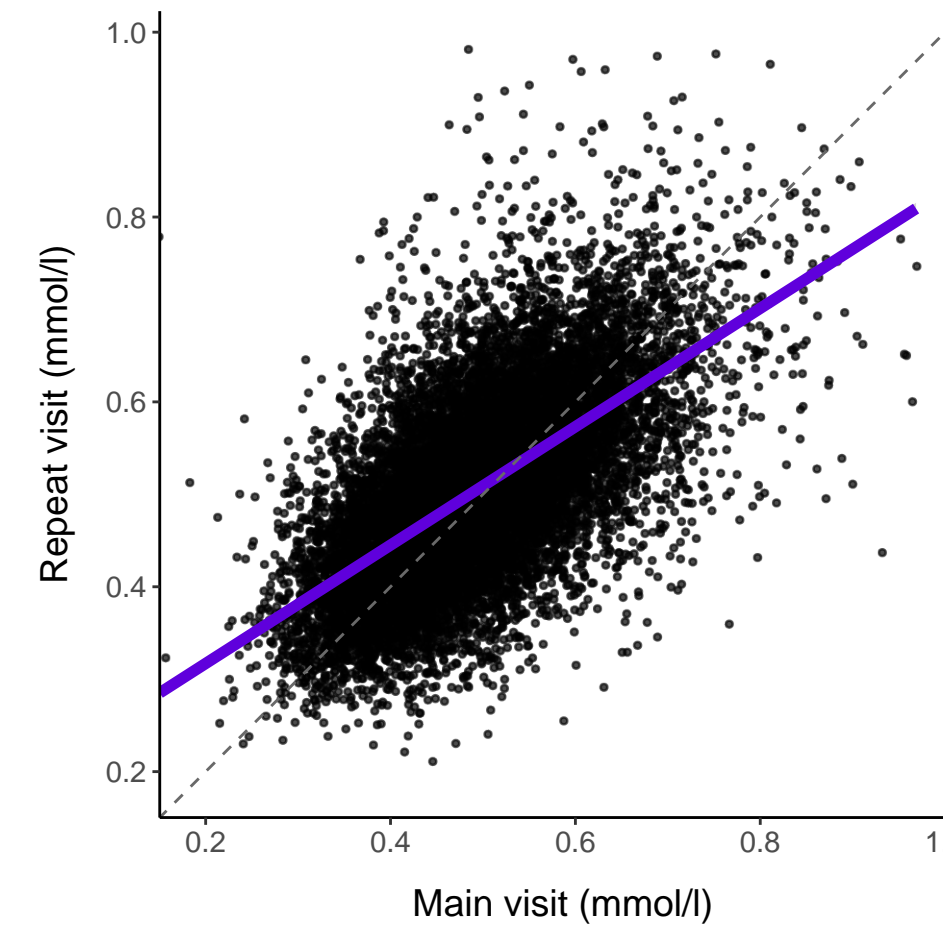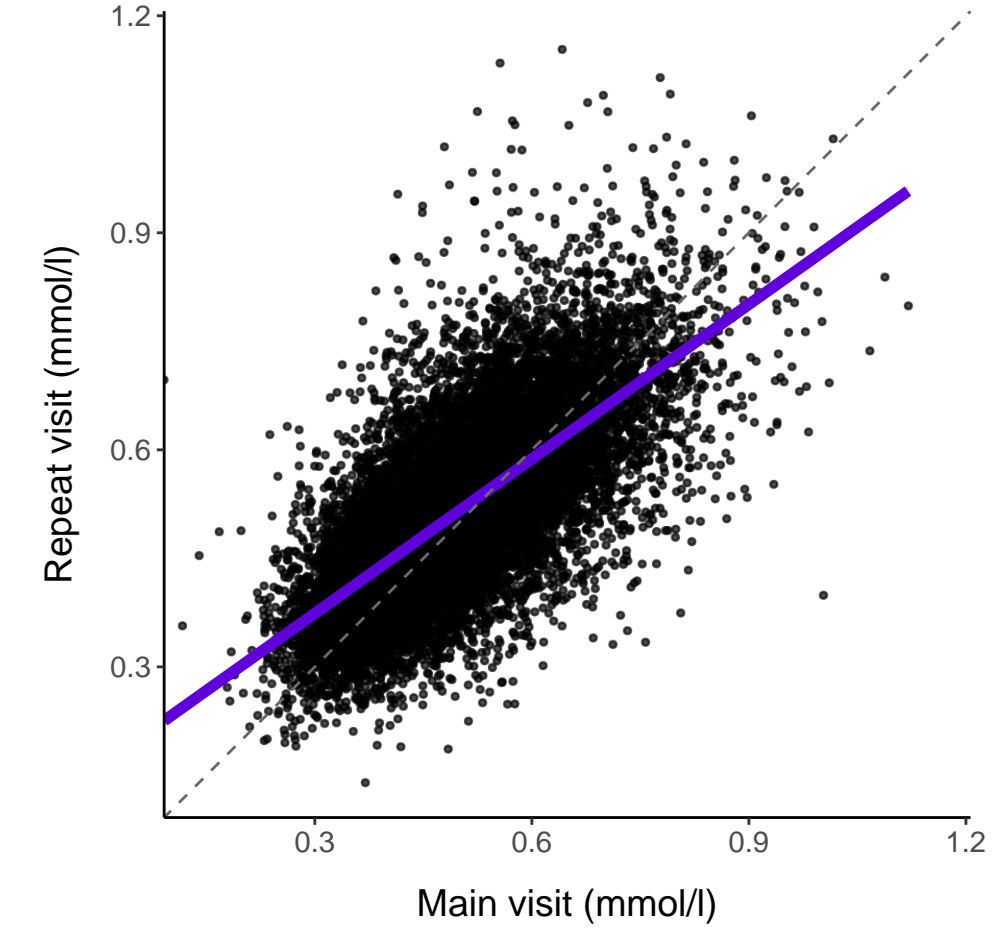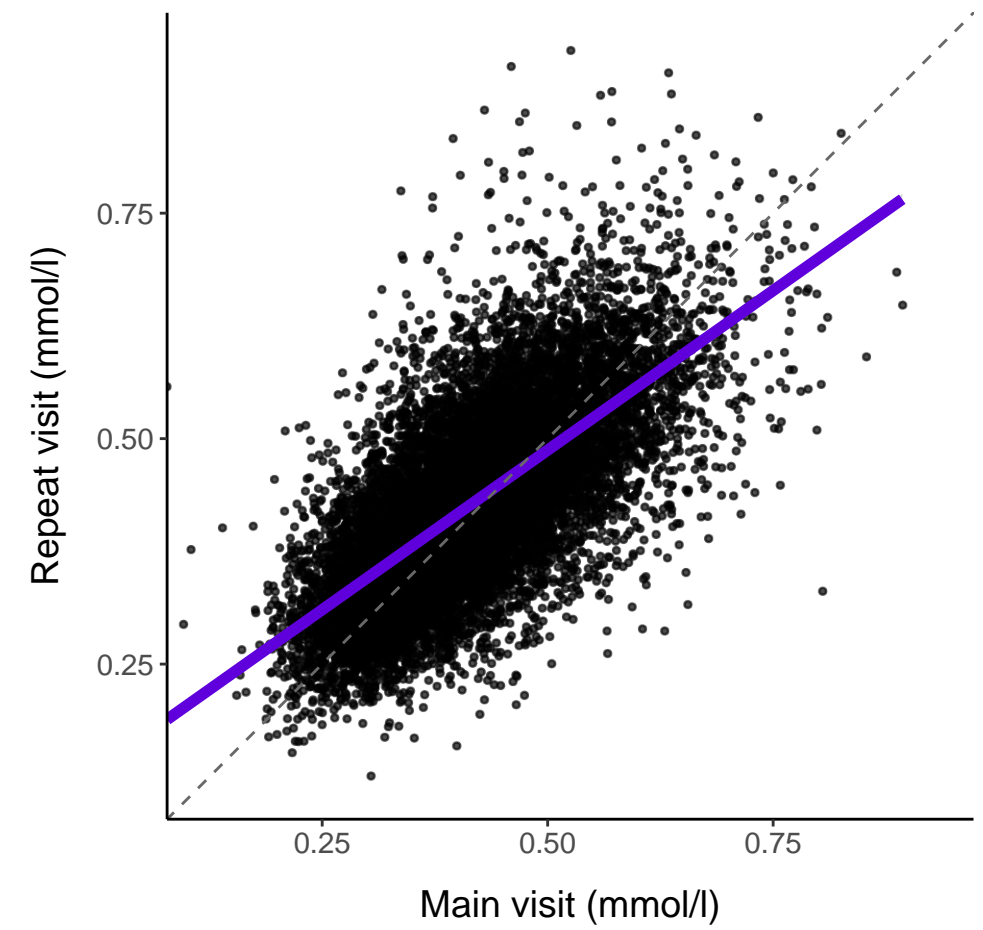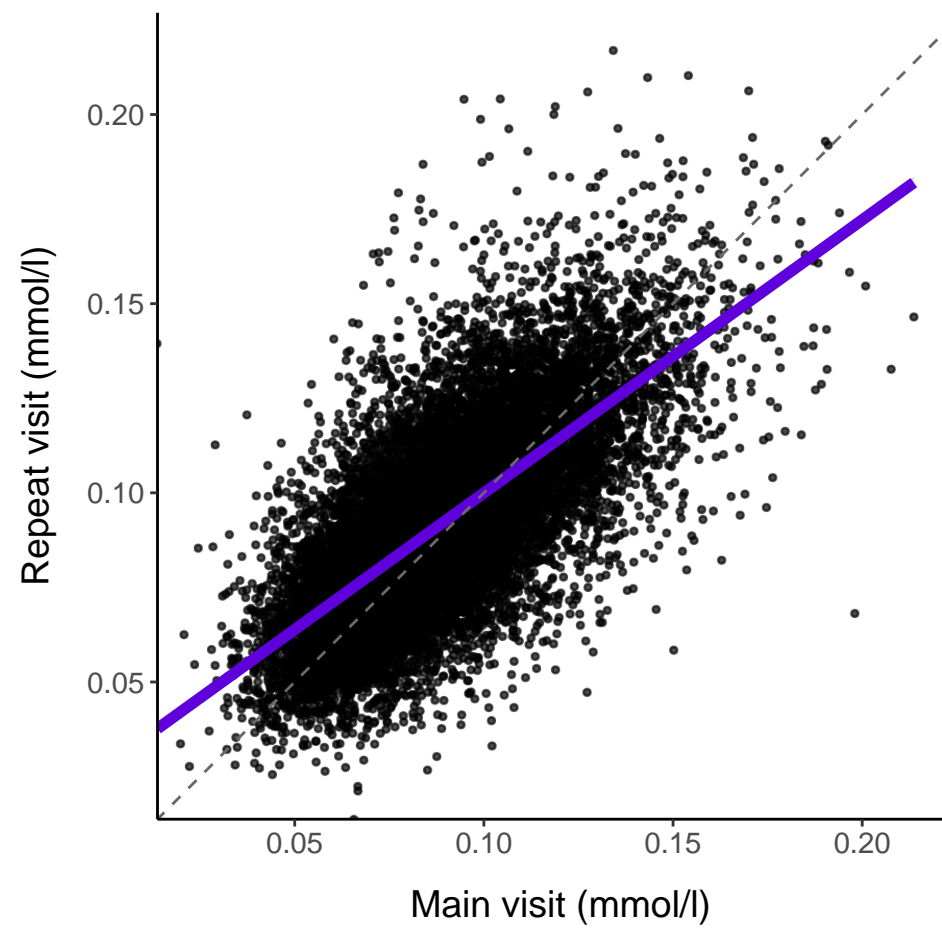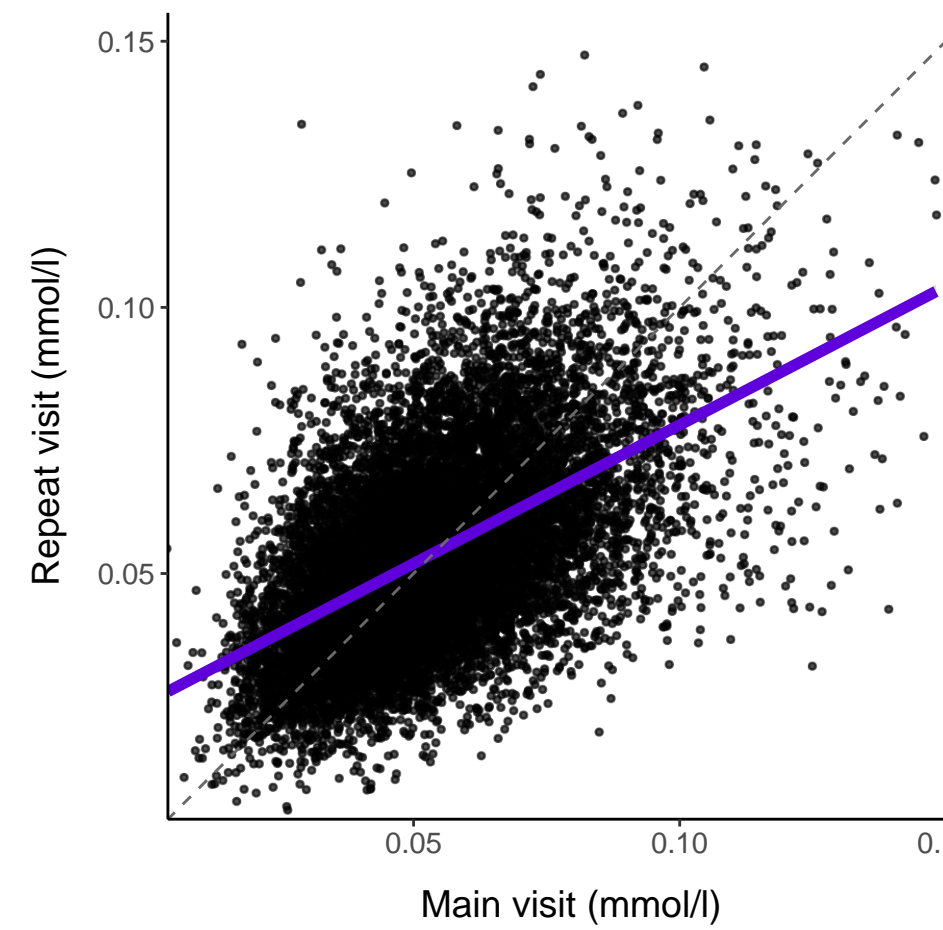
Small HDL (average diameter 8.7 nm)
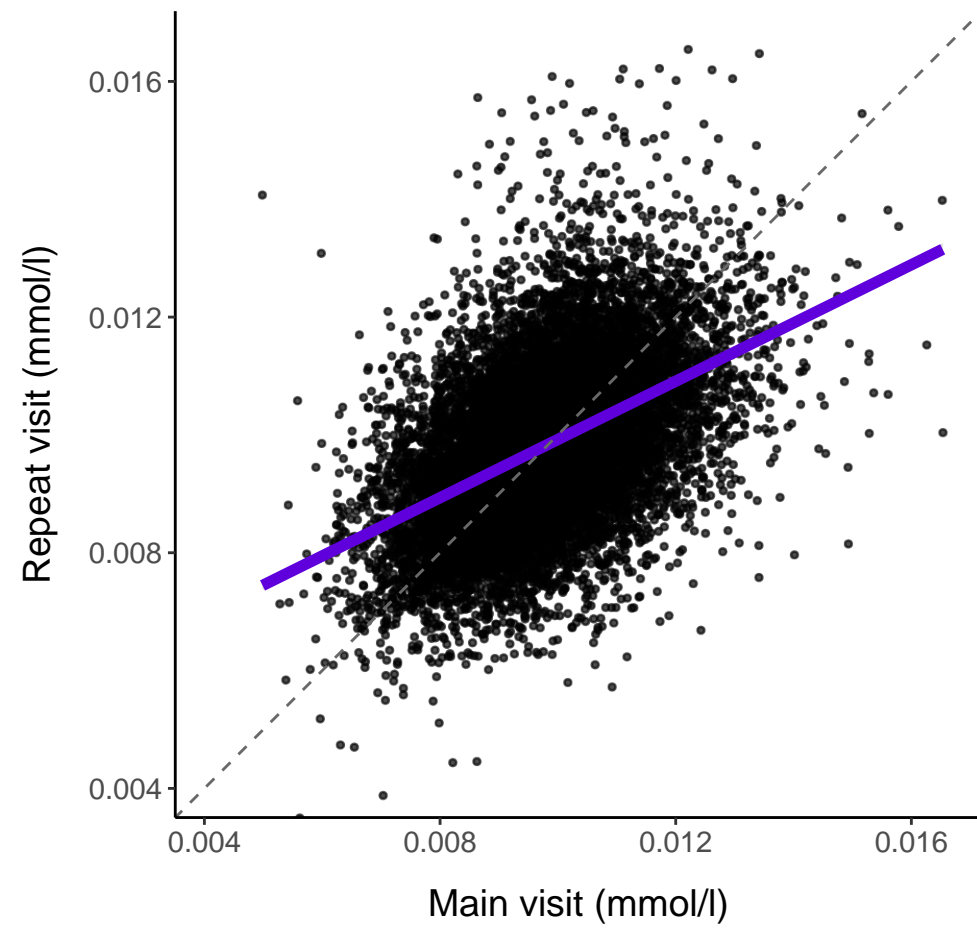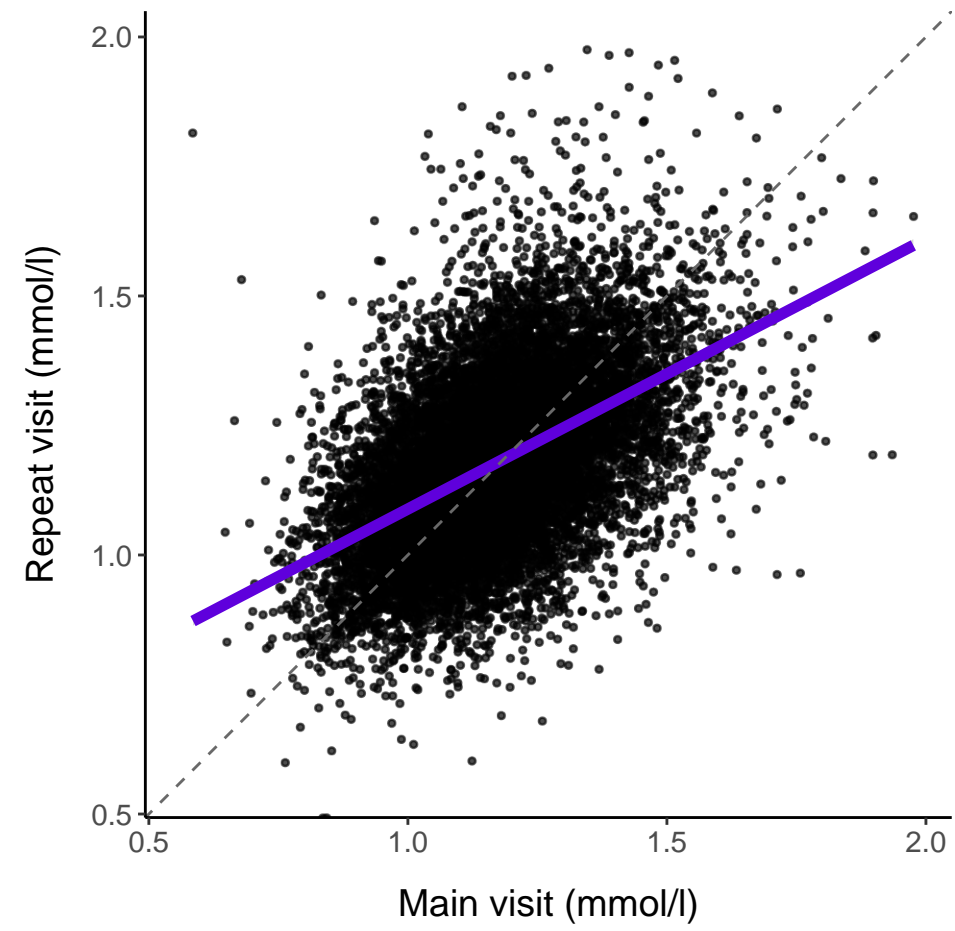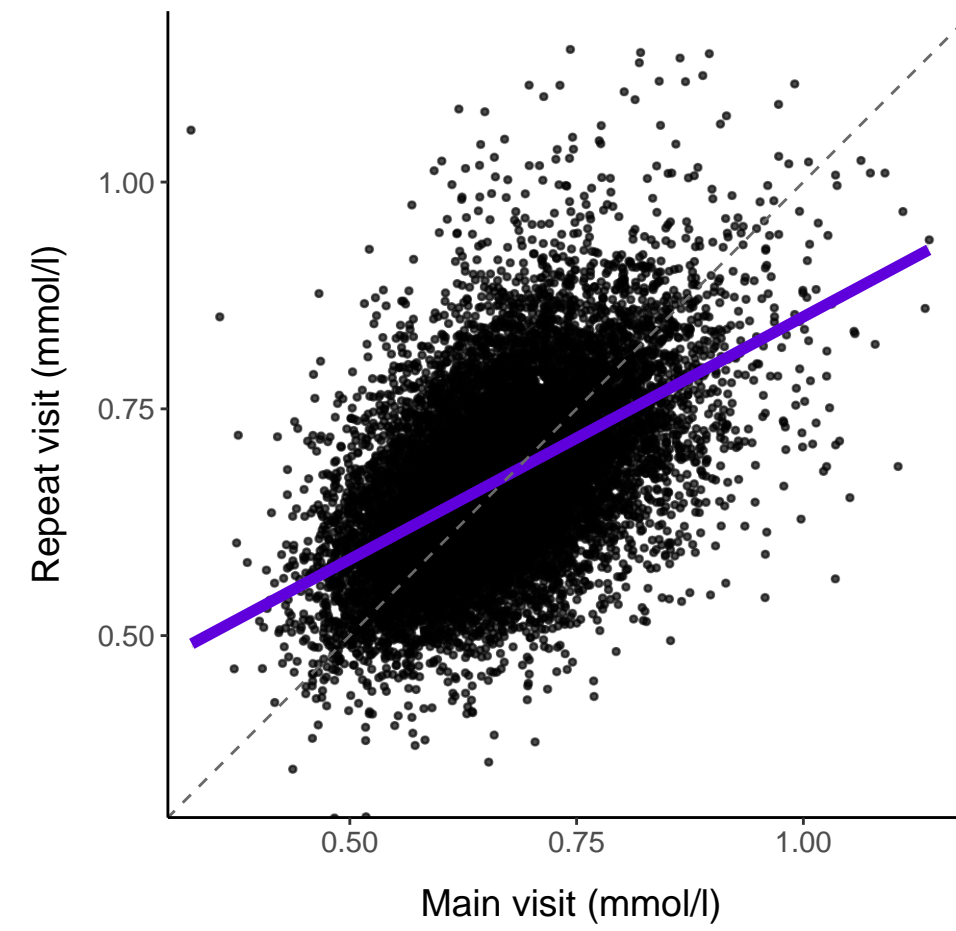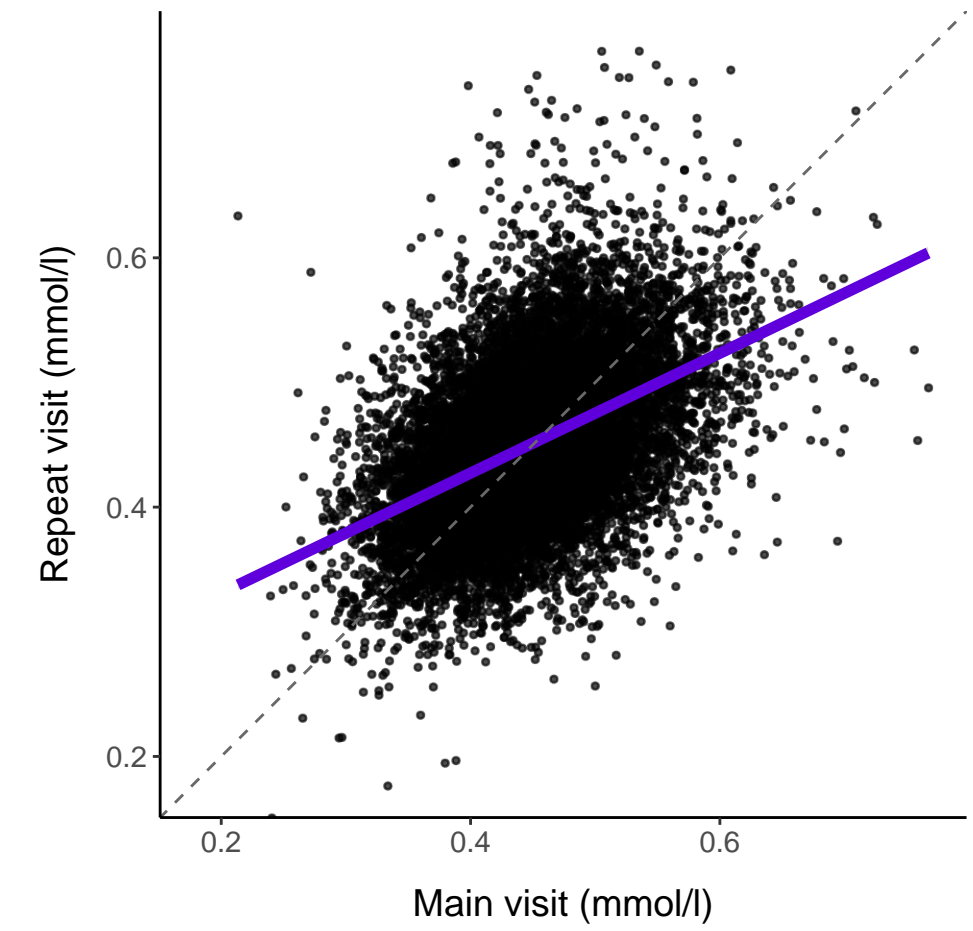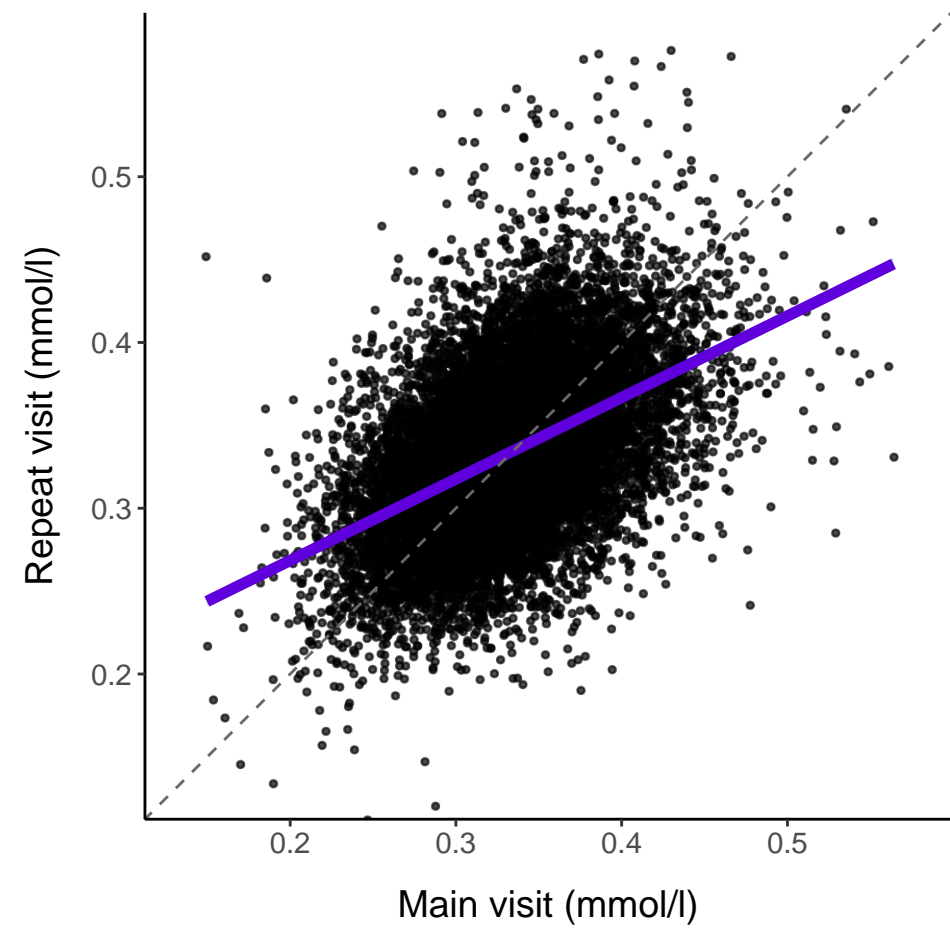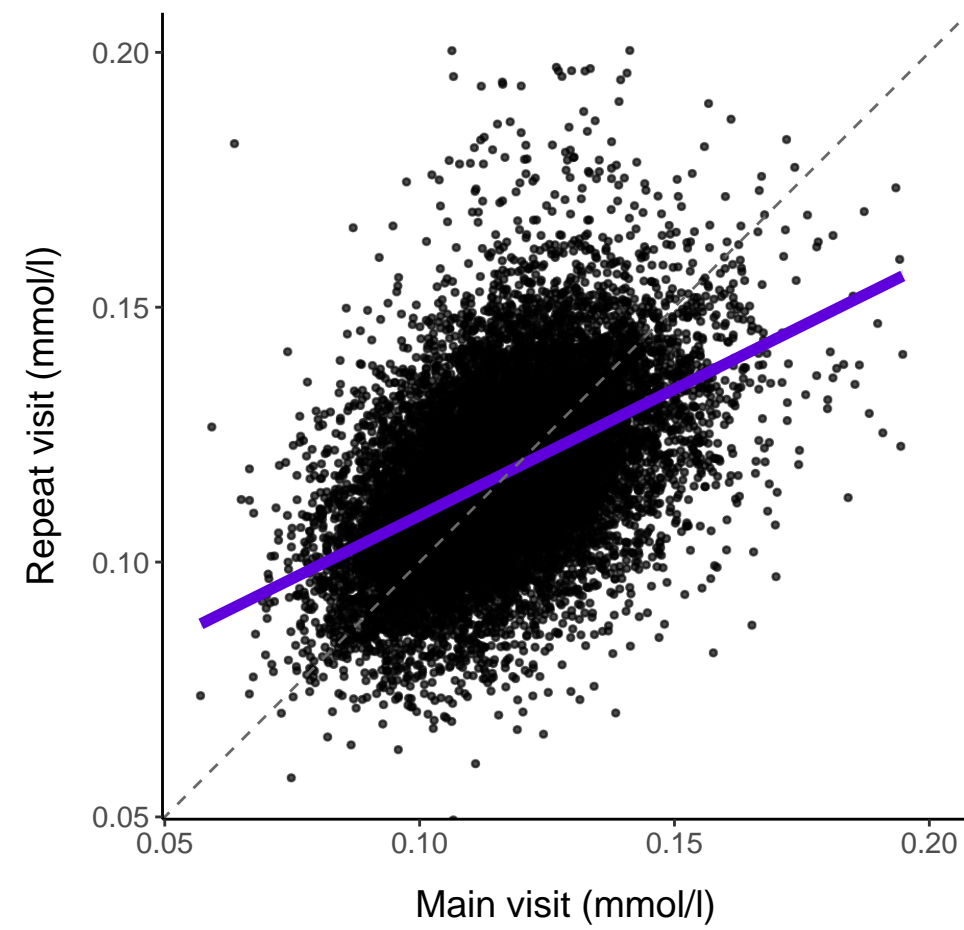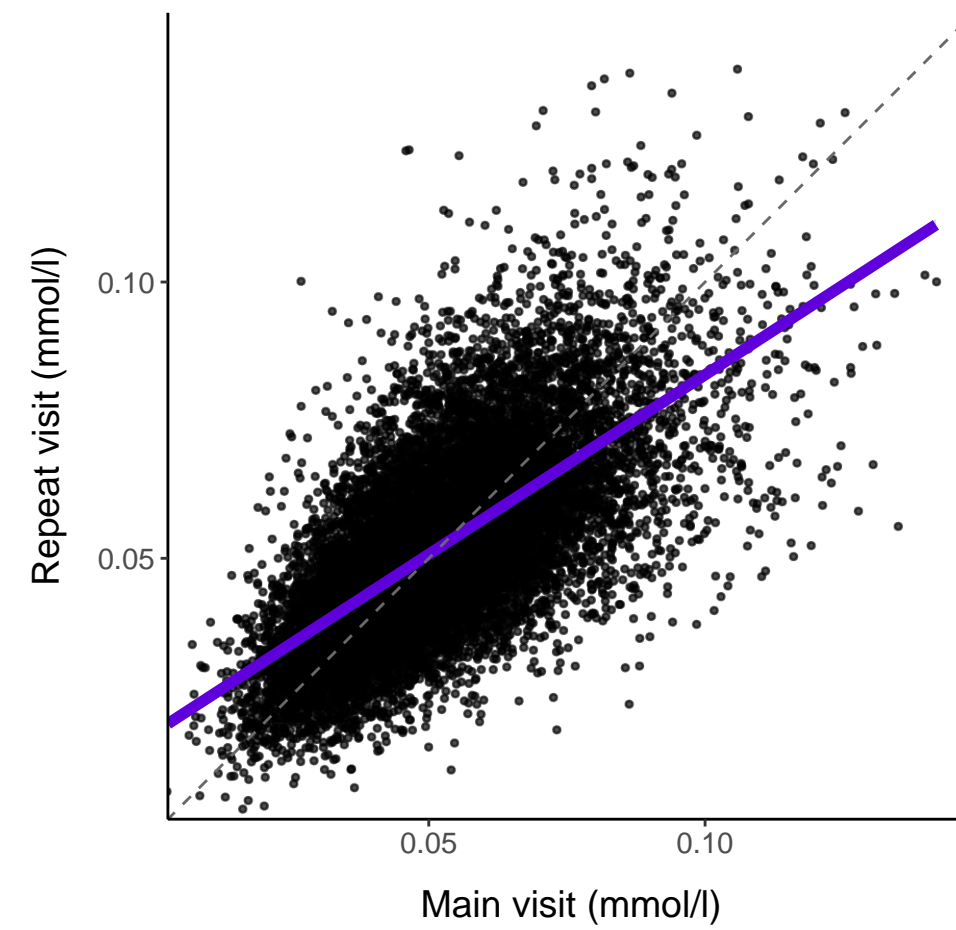
Chylomicrons and extremely large VLDL ratios

XXL_VLDL_PL_pct
R: 0.3
y = 11.06 + 0.30x

XXL_VLDL_C_pct
R: 0.26
y = 20.08 + 0.25x

XXL_VLDL_CE_pct
R: 0.23
y = 11.31 + 0.23x
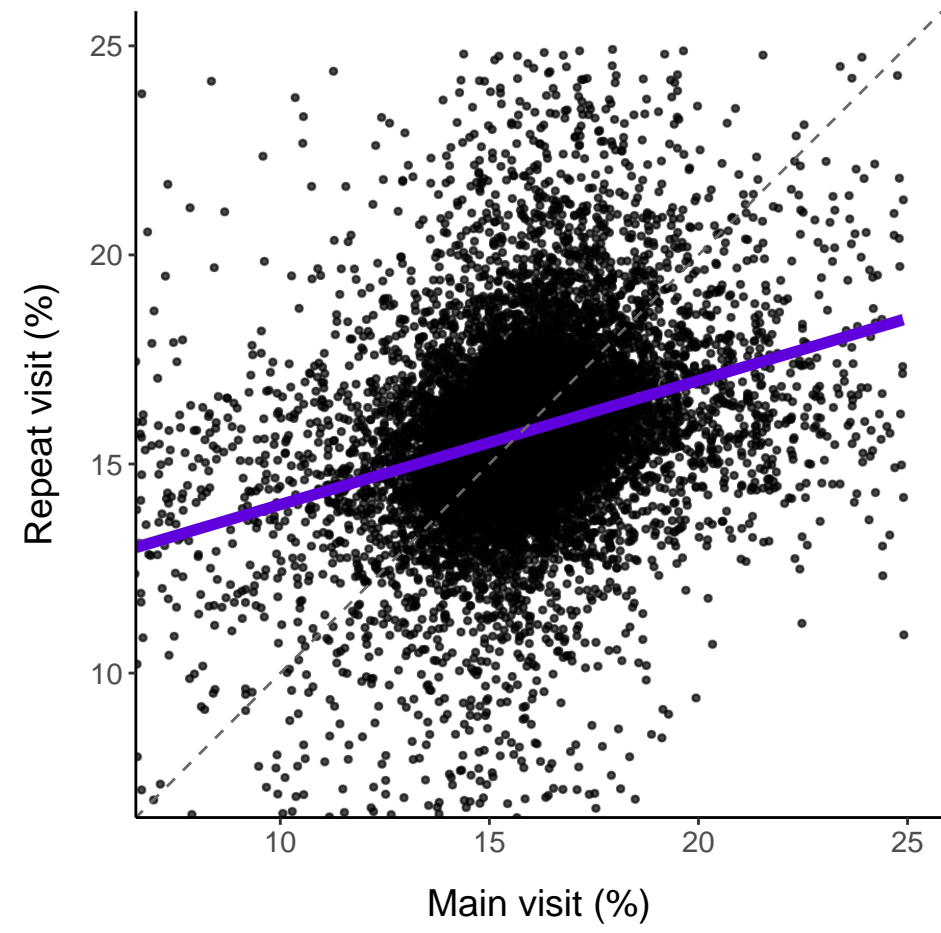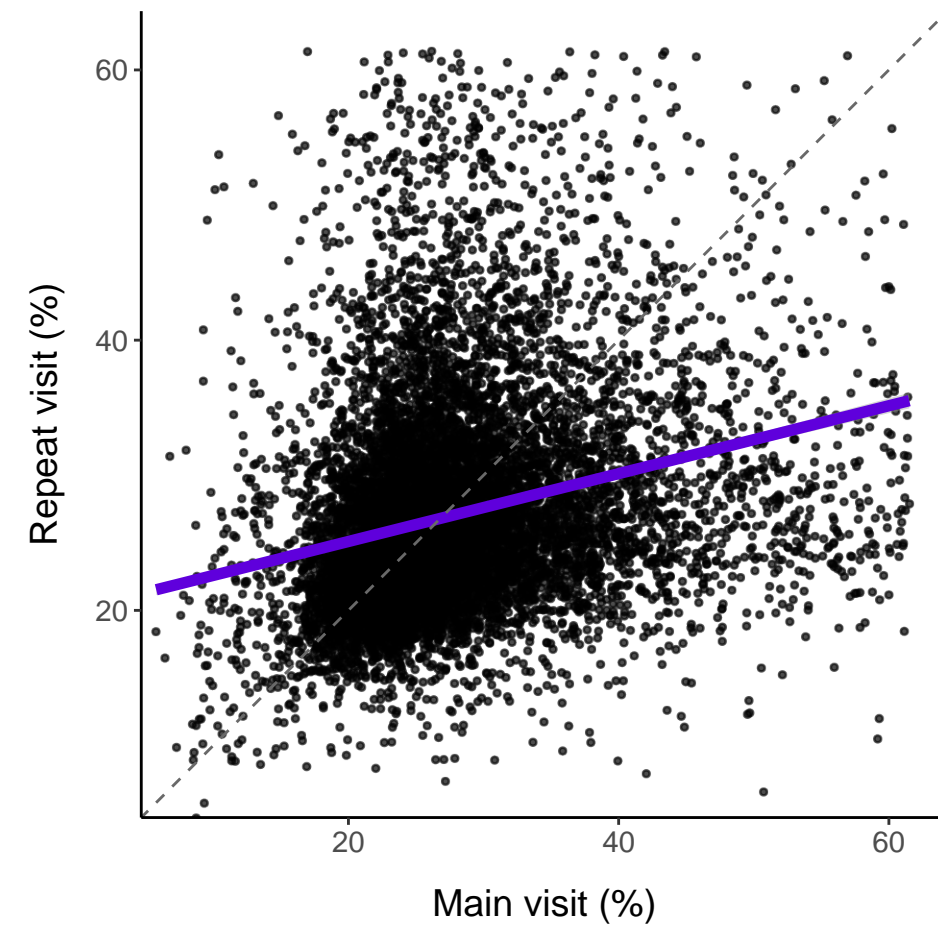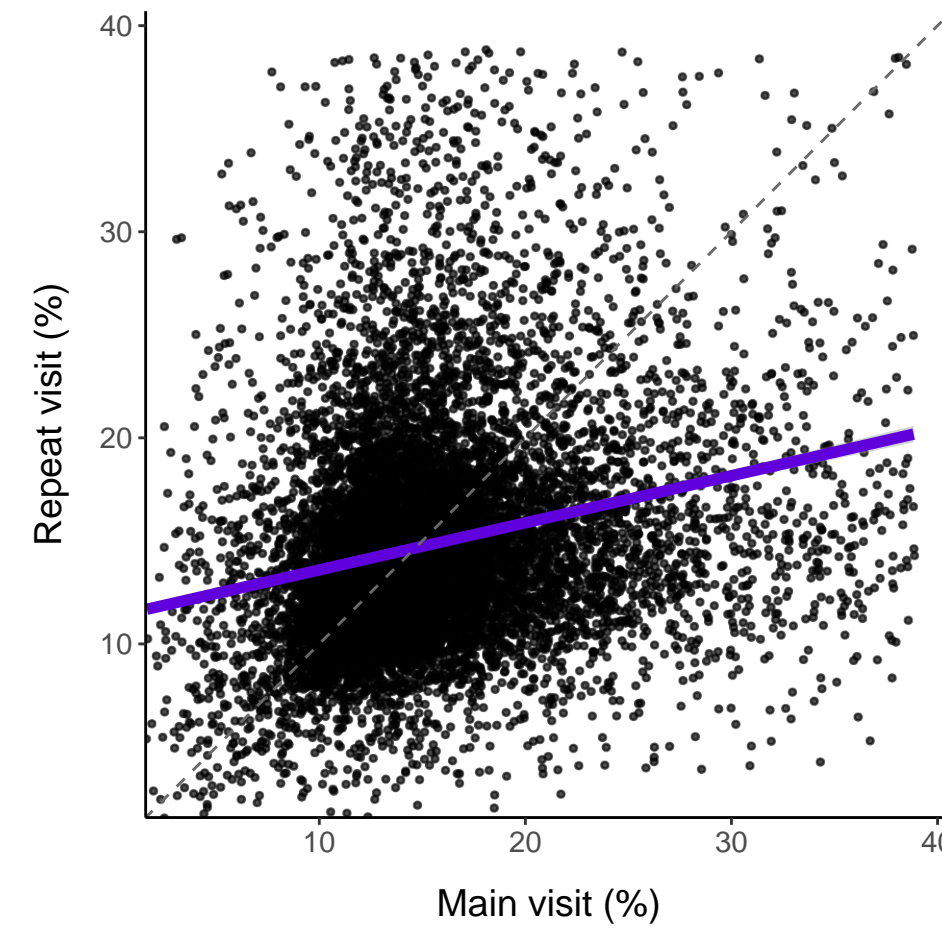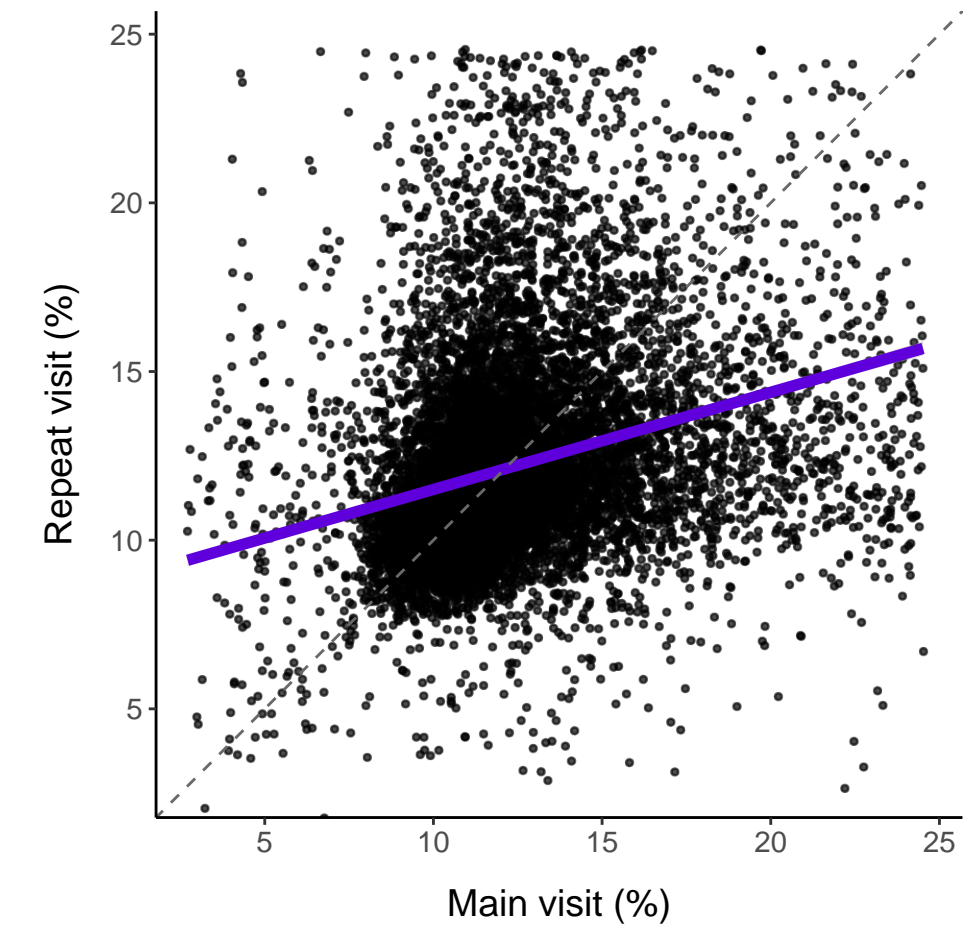
XXL_VLDL_FC_pct
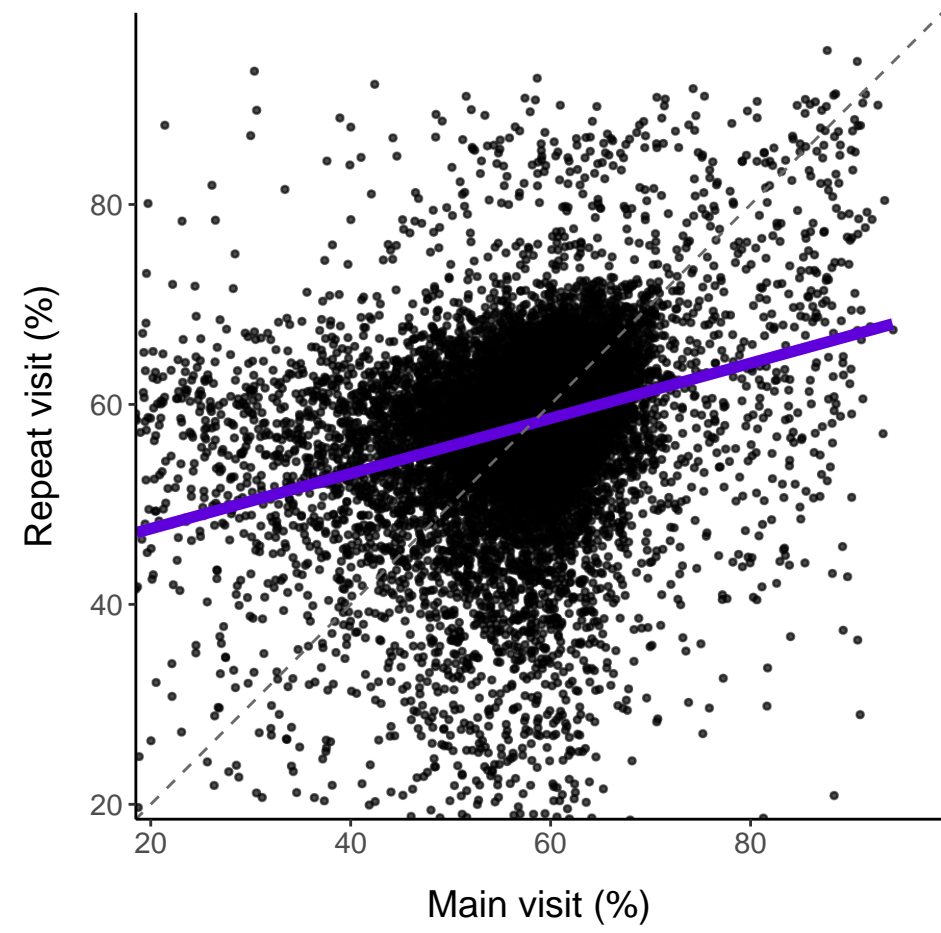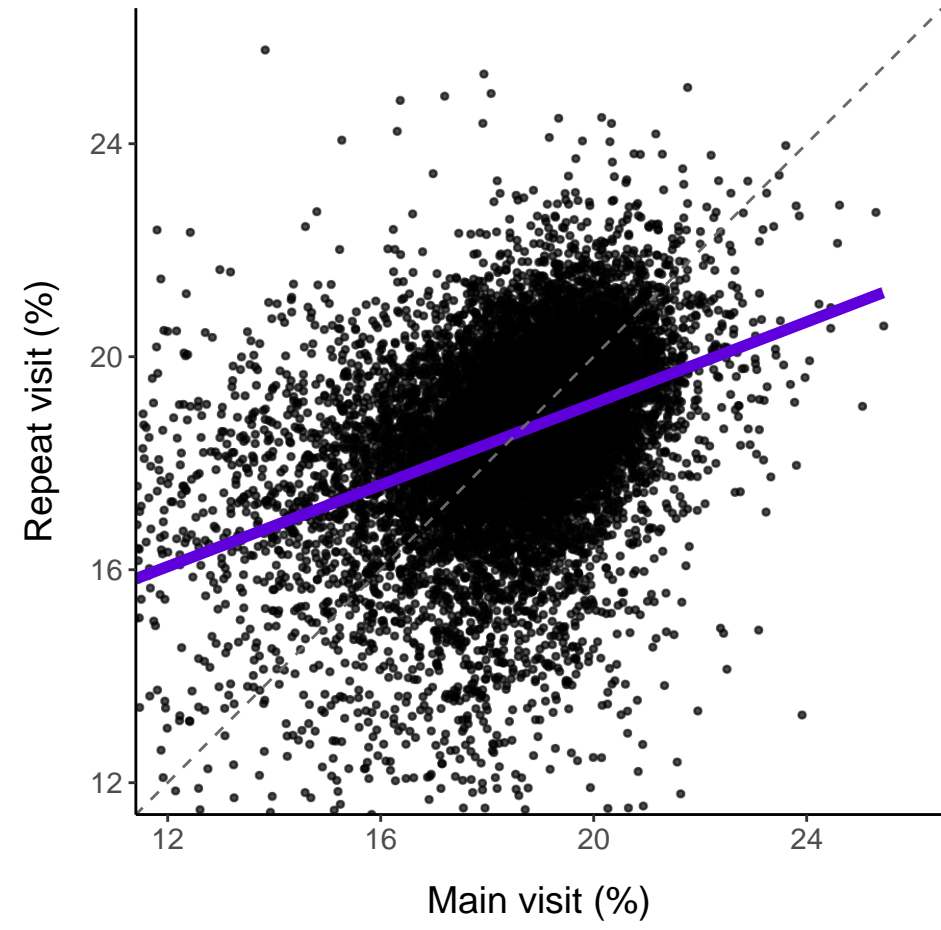R: 0.29
y = 8.62 + 0.29x

XXL_VLDL_TG_pct
R: 0.29
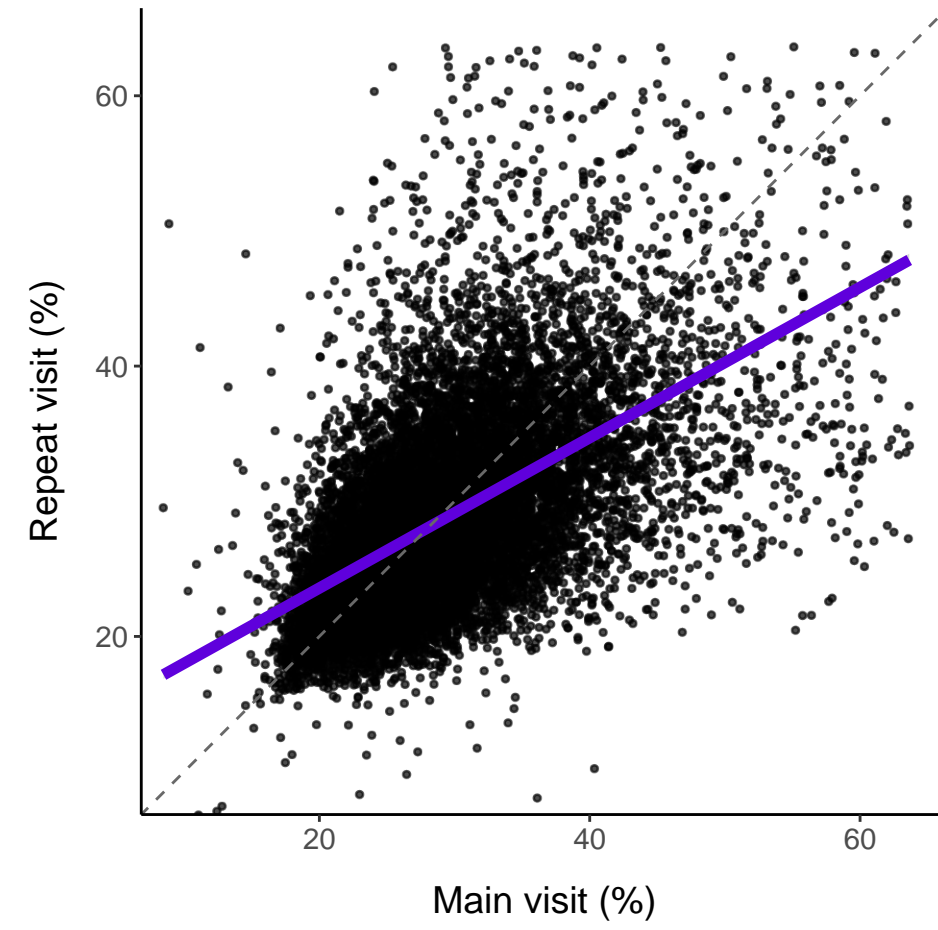y = 42.05 + 0.28x

Very large VLDL ratios
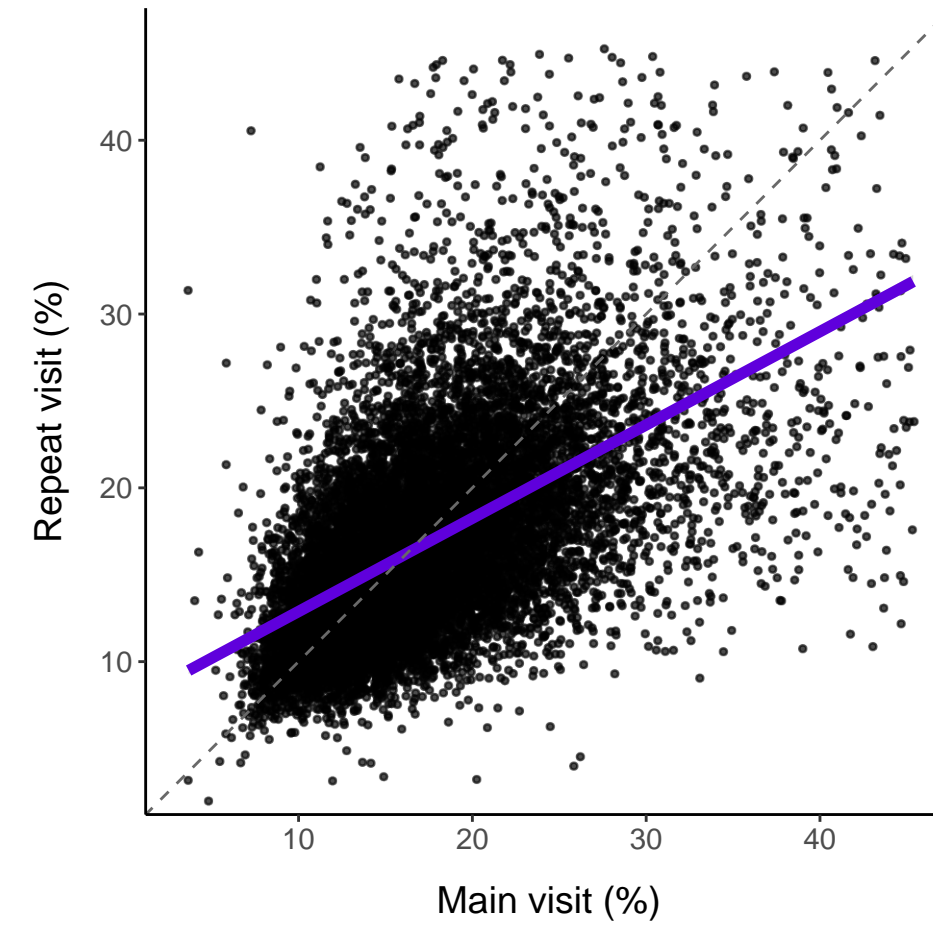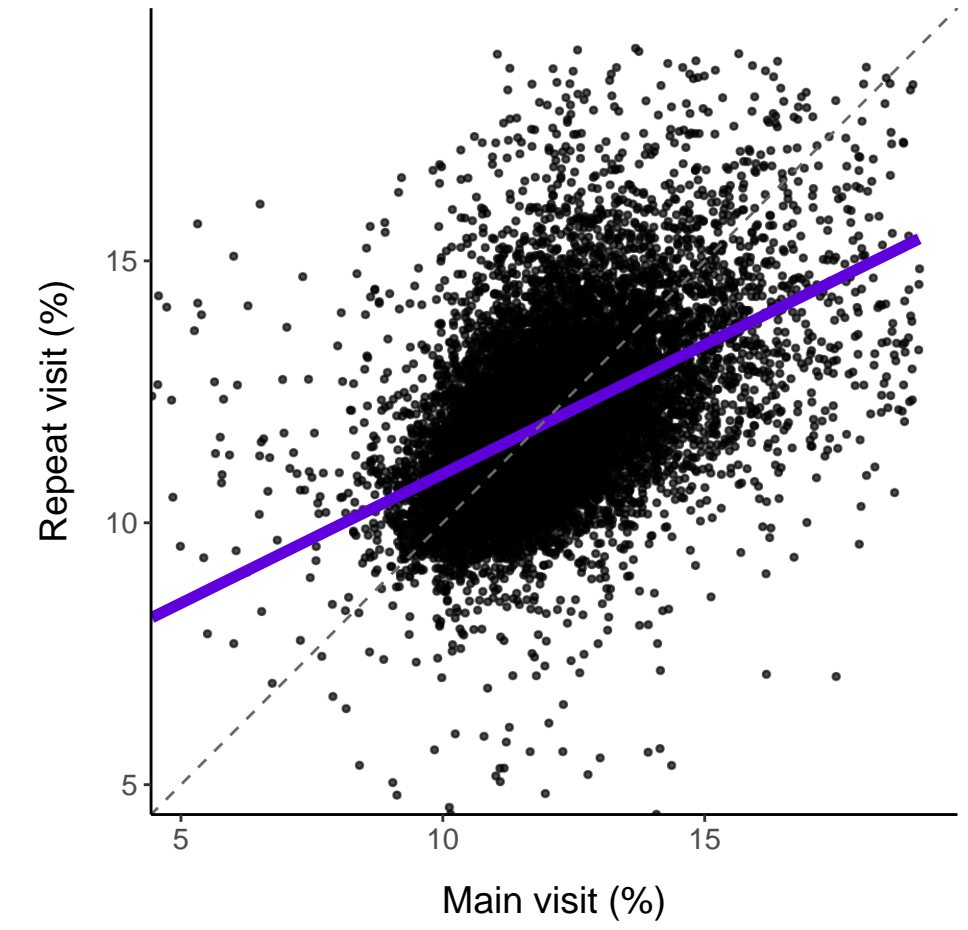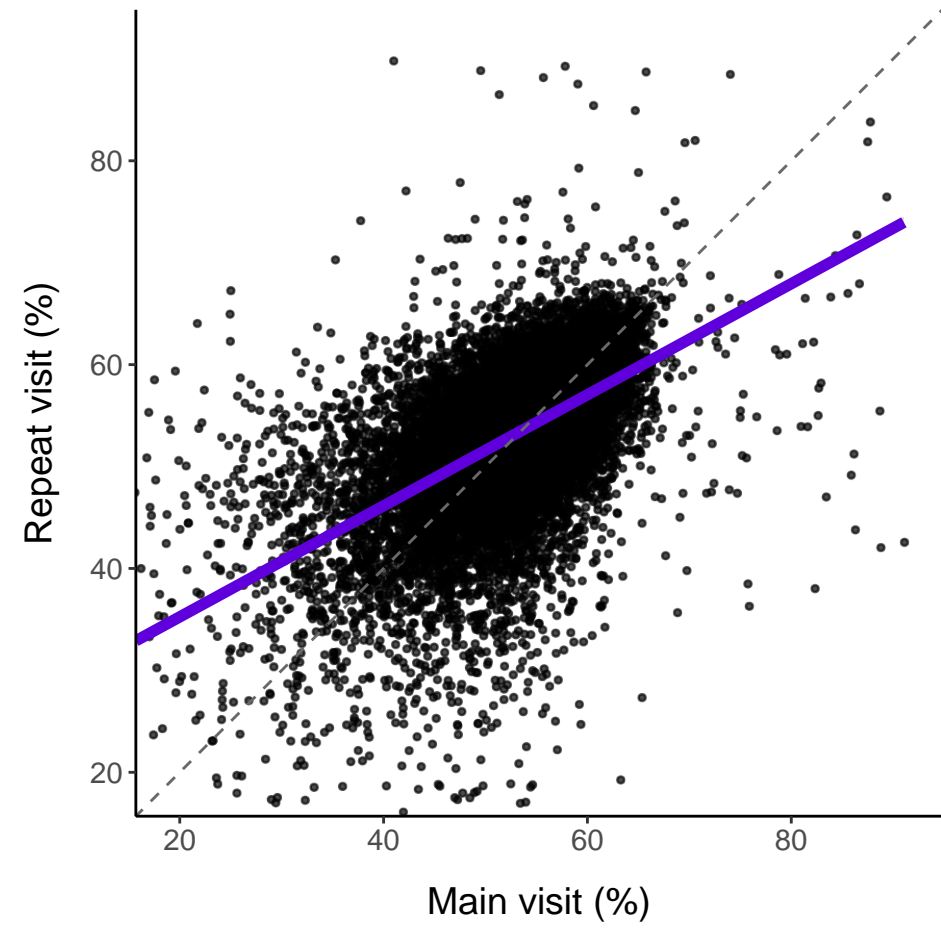
Large VLDL ratios

L_VLDL_PL_pct

R: 0.58
y = 8.22 + 0.57x
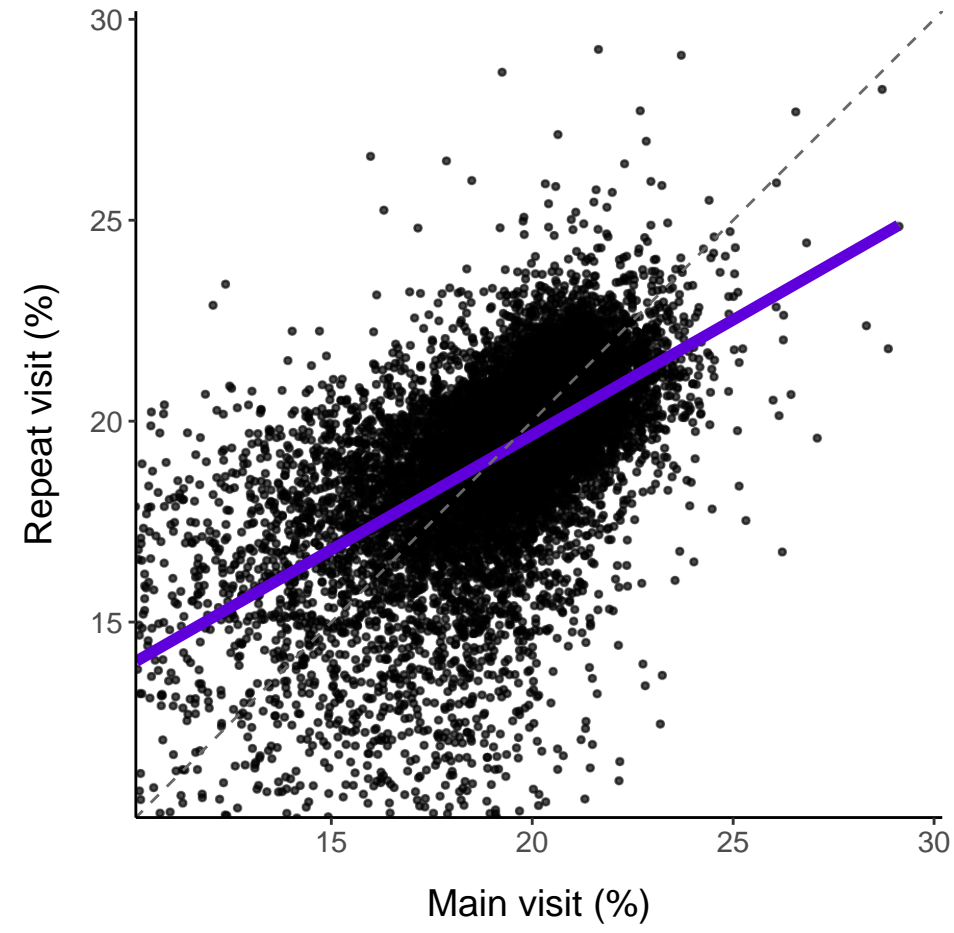
L_VLDL_C_pct

R: 0.5
y = 14.29 + 0.52x
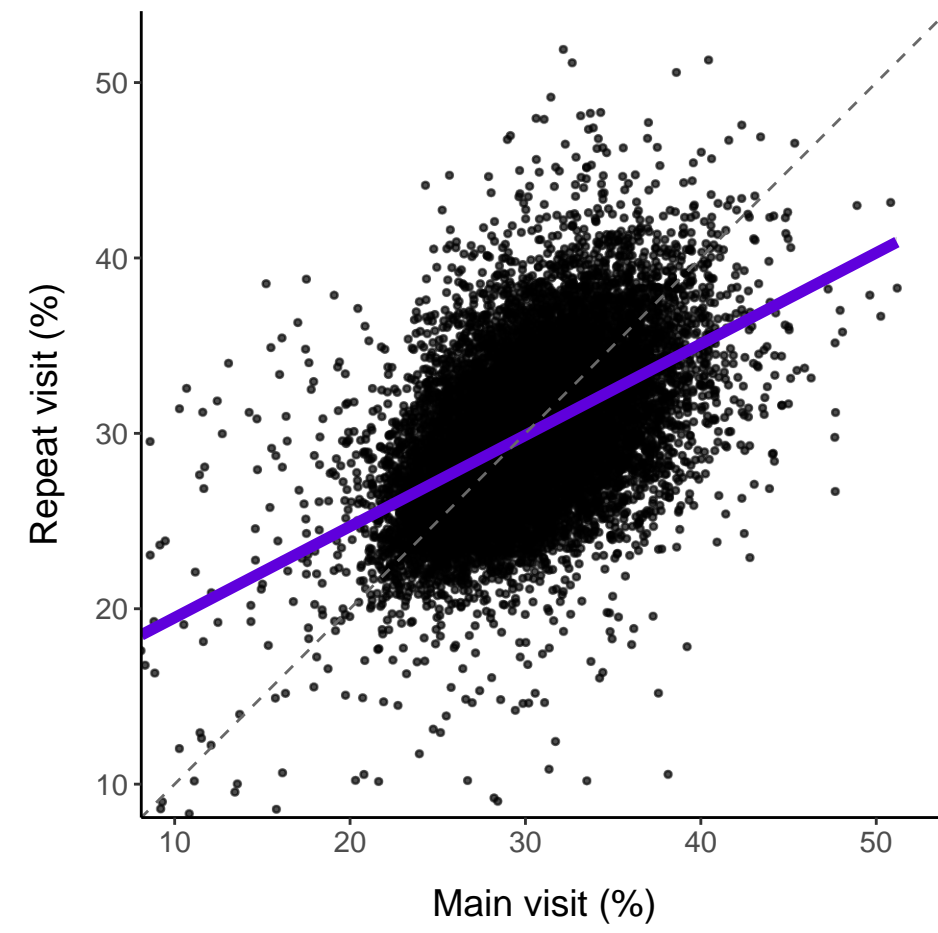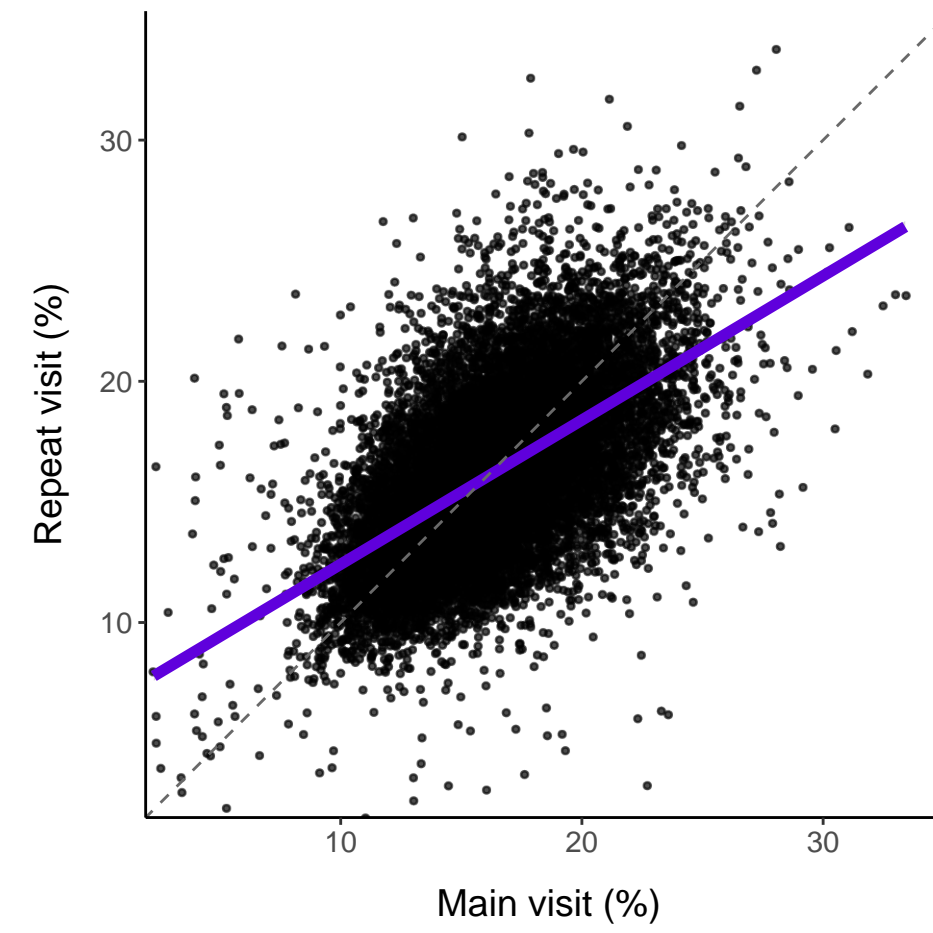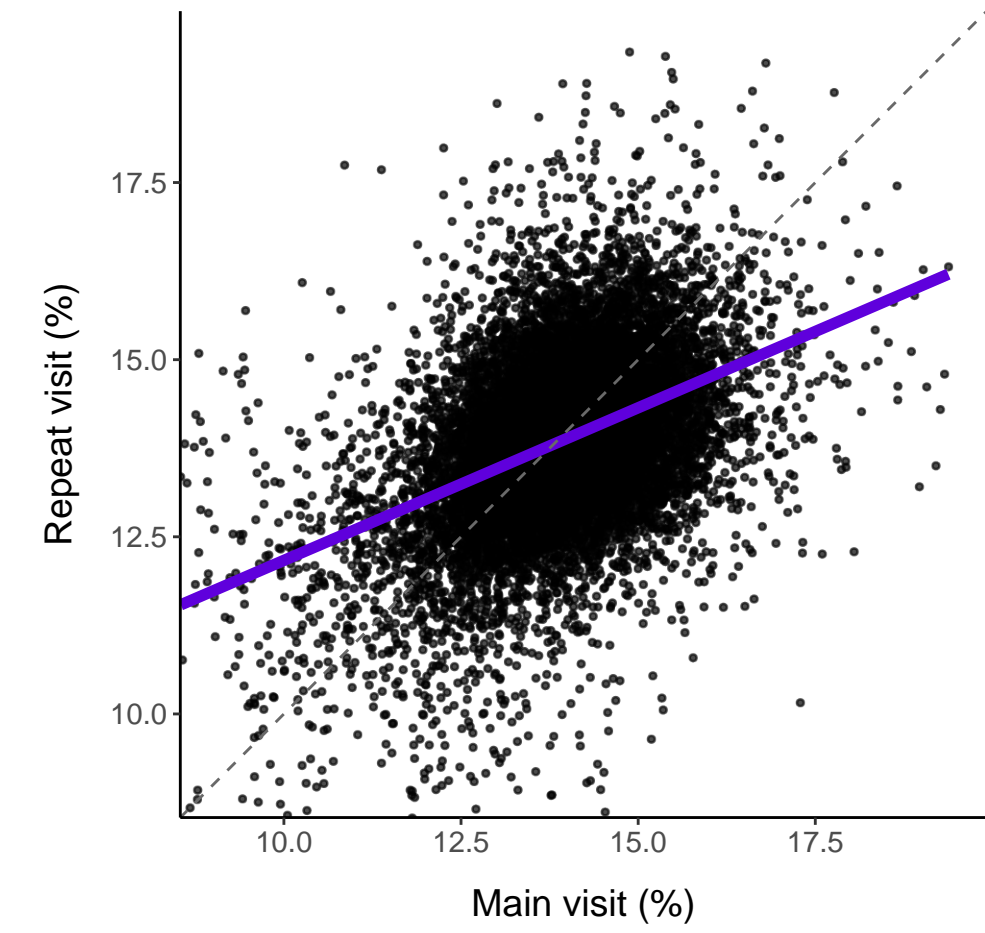
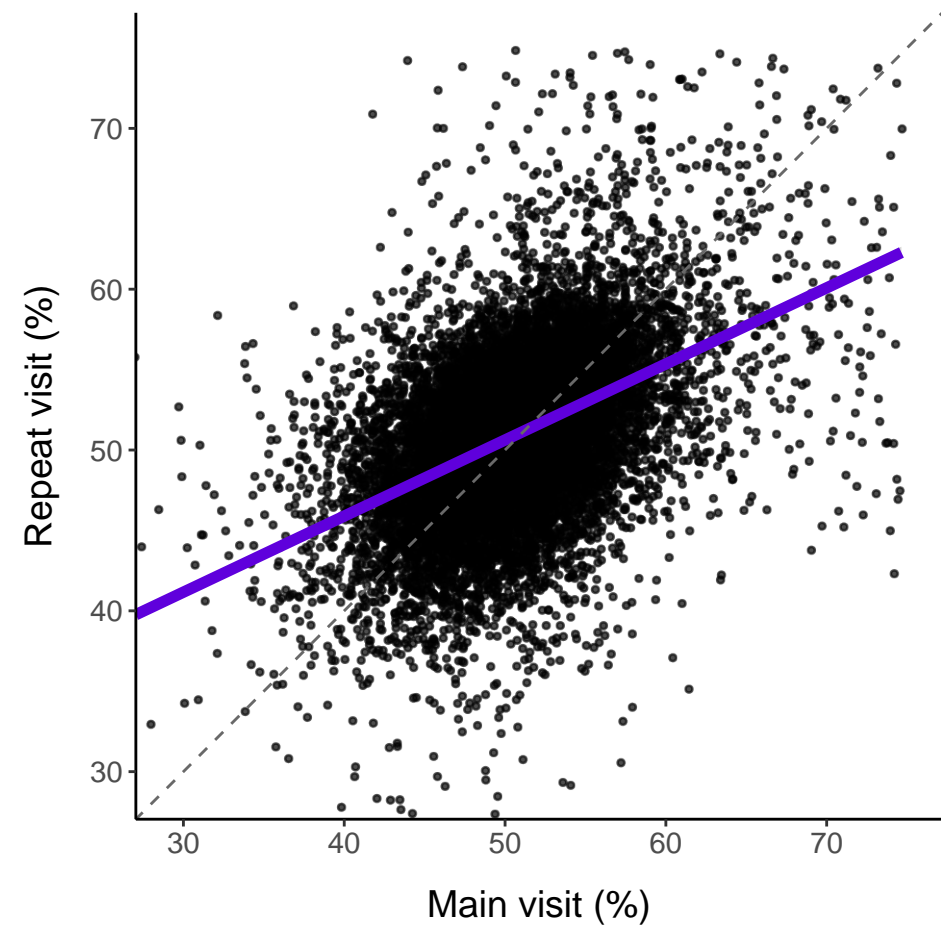## L_VLDL_CE_pct

R: 0.58
y = 6.44 + 0.60x

L_VLDL_FC_pct

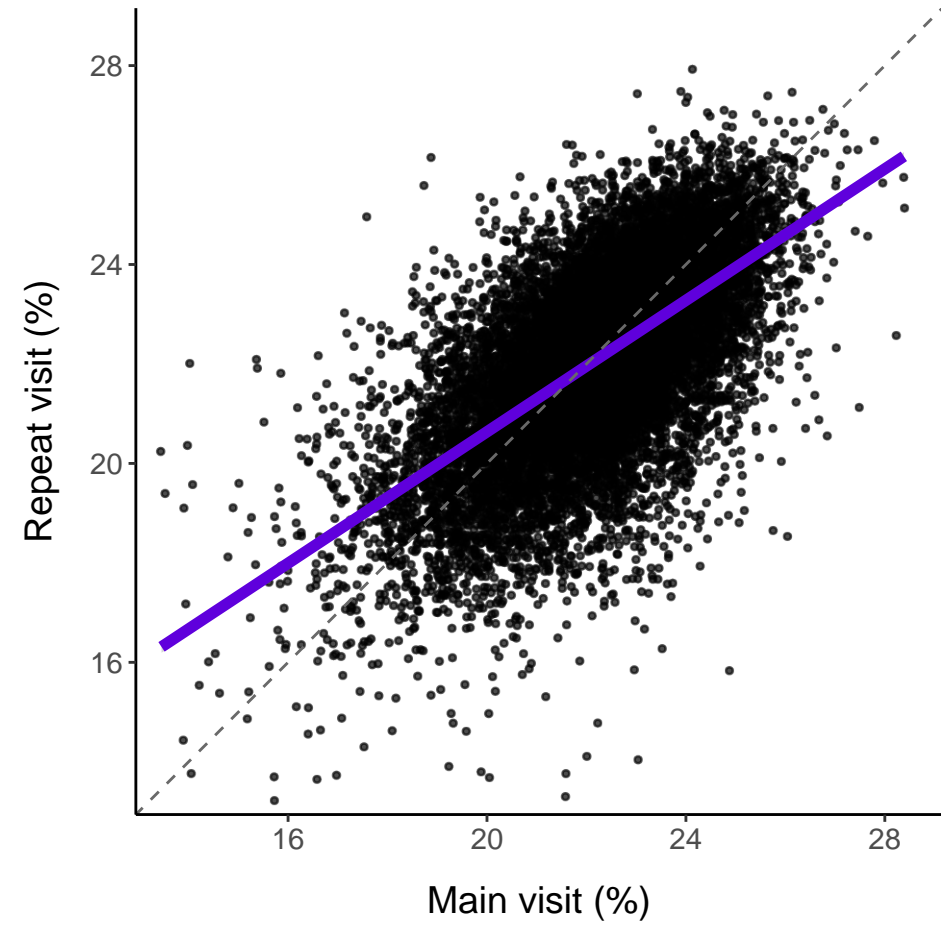R: 0.42
y = 7.86 + 0.43x

L_VLDL_TG_pct

R: 0.46
y = 26.97 + 0.47x
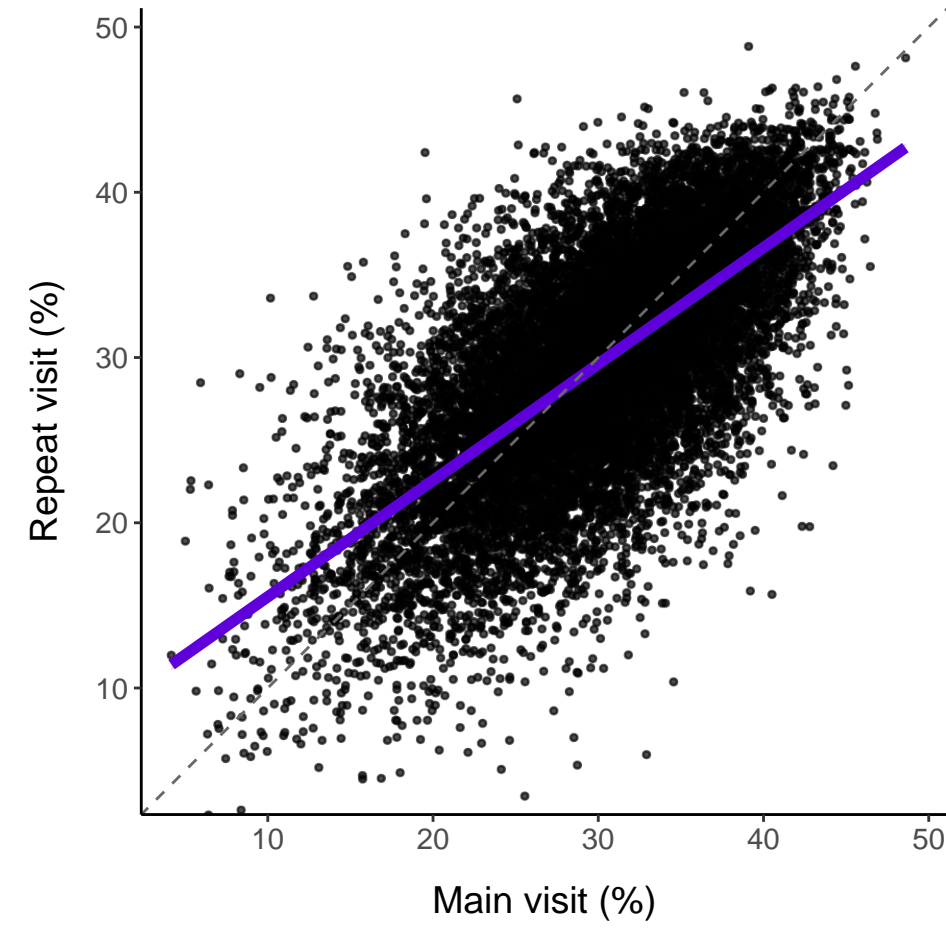
Medium VLDL ratios

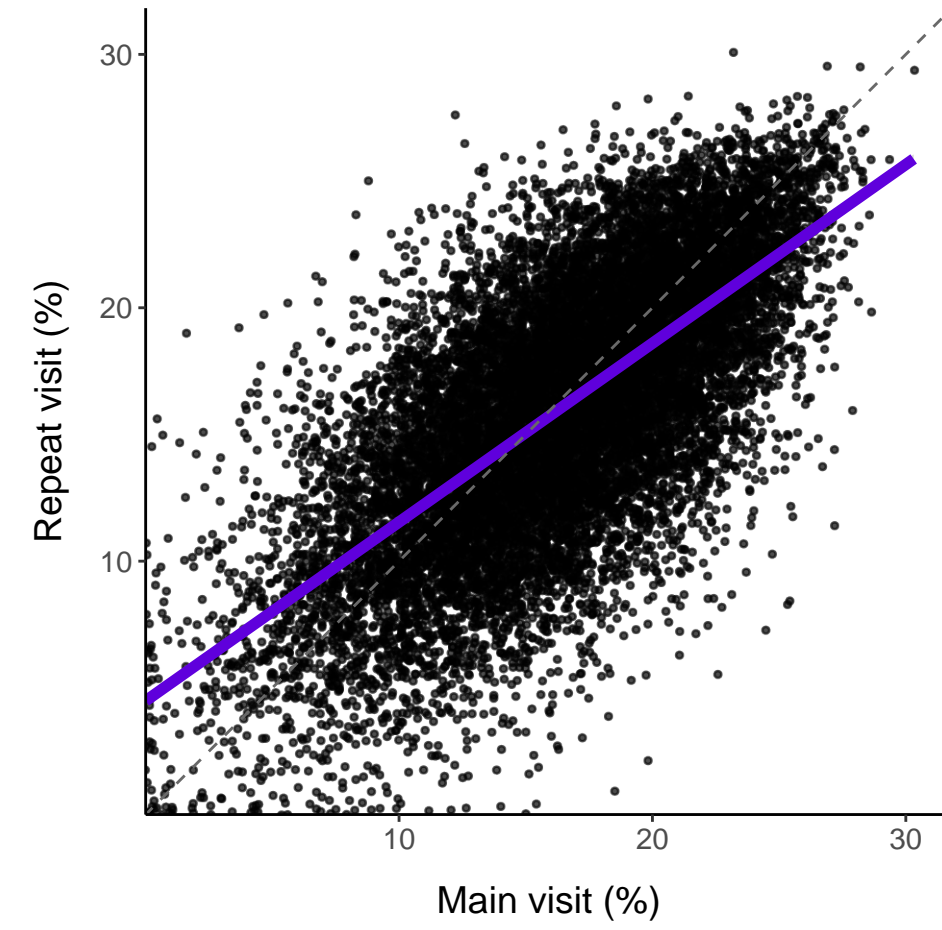## M_VLDL_PL_pct

R: 0.63
y = 7.42 + 0.66x

M_VLDL_C_pct
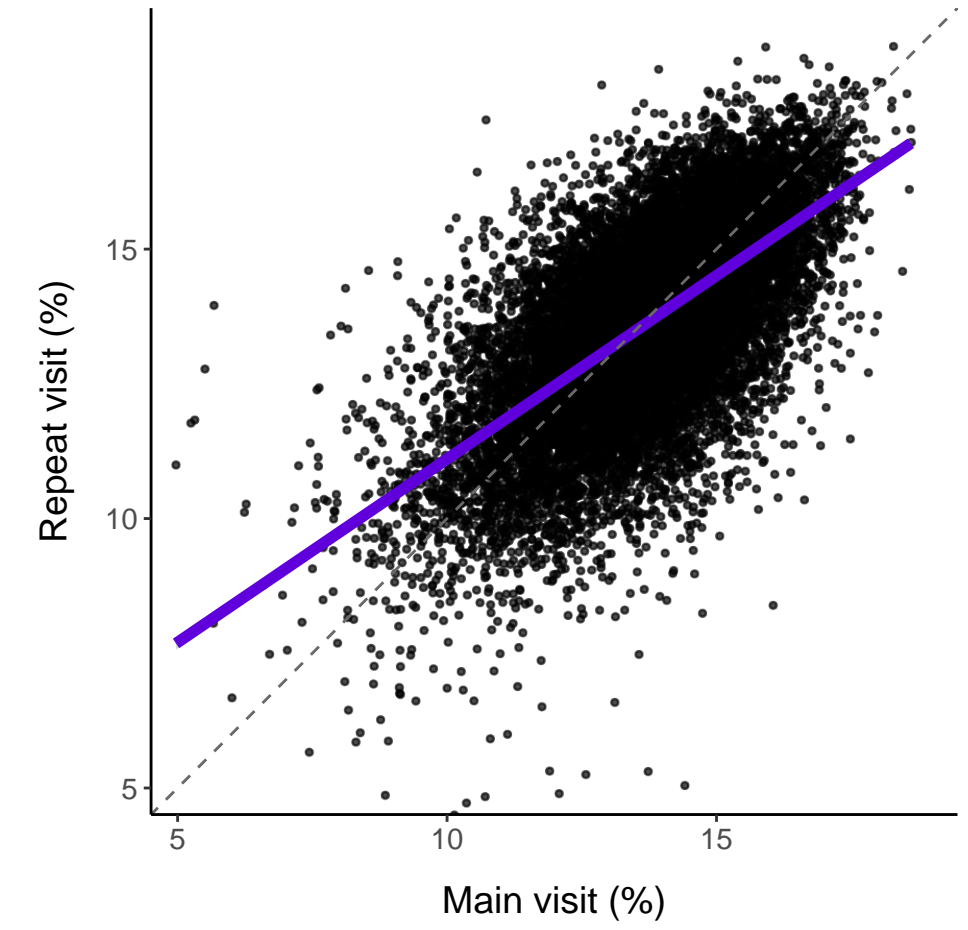
R: 0.68
y = 8.48 + 0.70x

M_VLDL_CE_pct

R: 0.69
y = 4.49 + 0.71x

M_VLDL_FC_pct

R: 0.64
y = 4.30 + 0.68x

M_VLDL_TG_pct

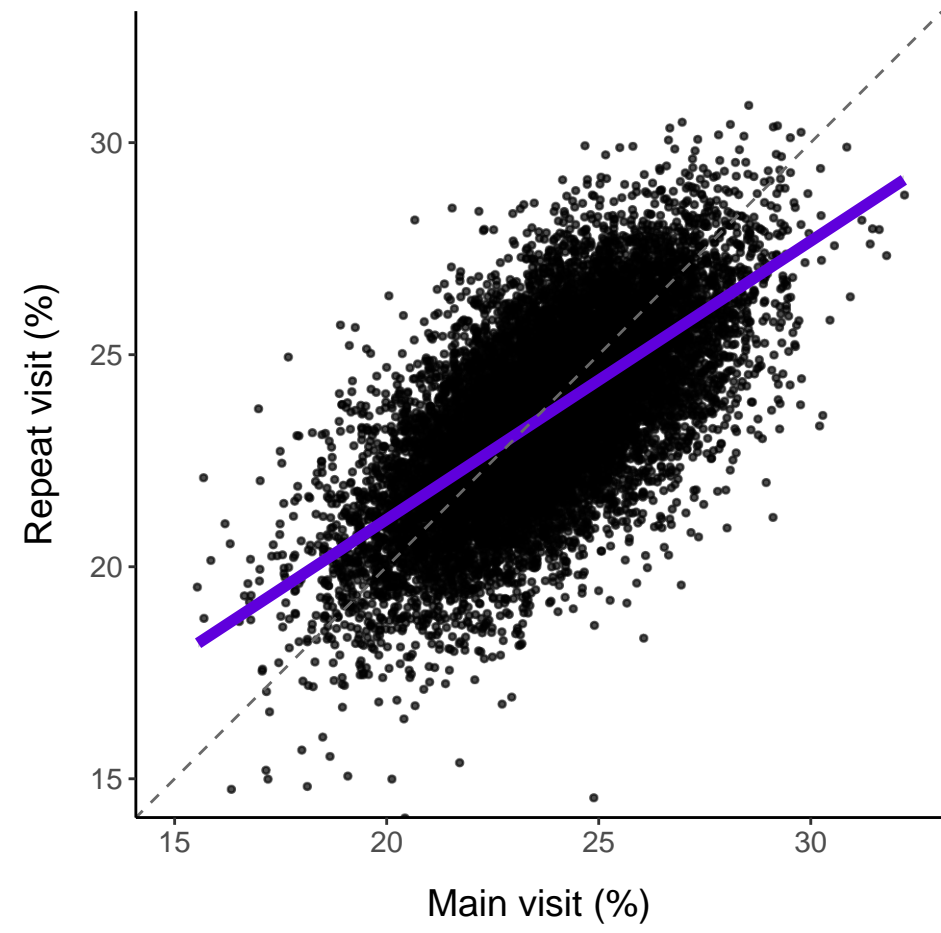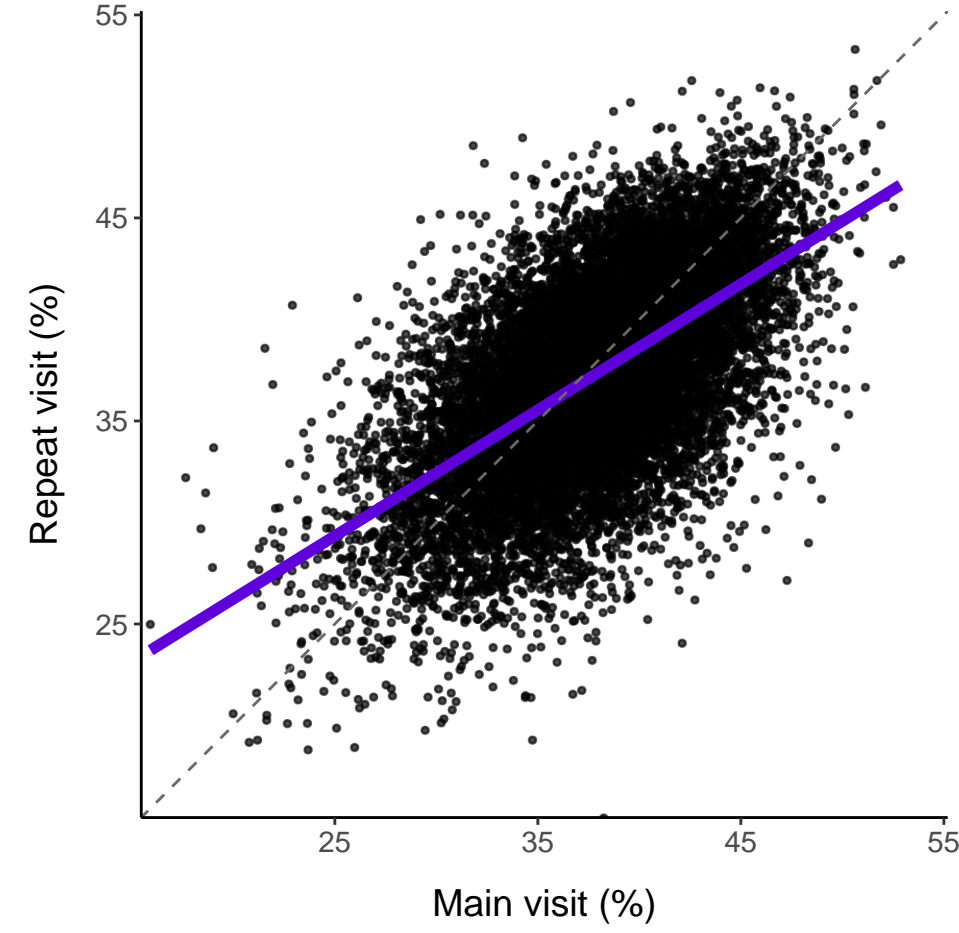R: 0.67
y = 14.86 + 0.70x
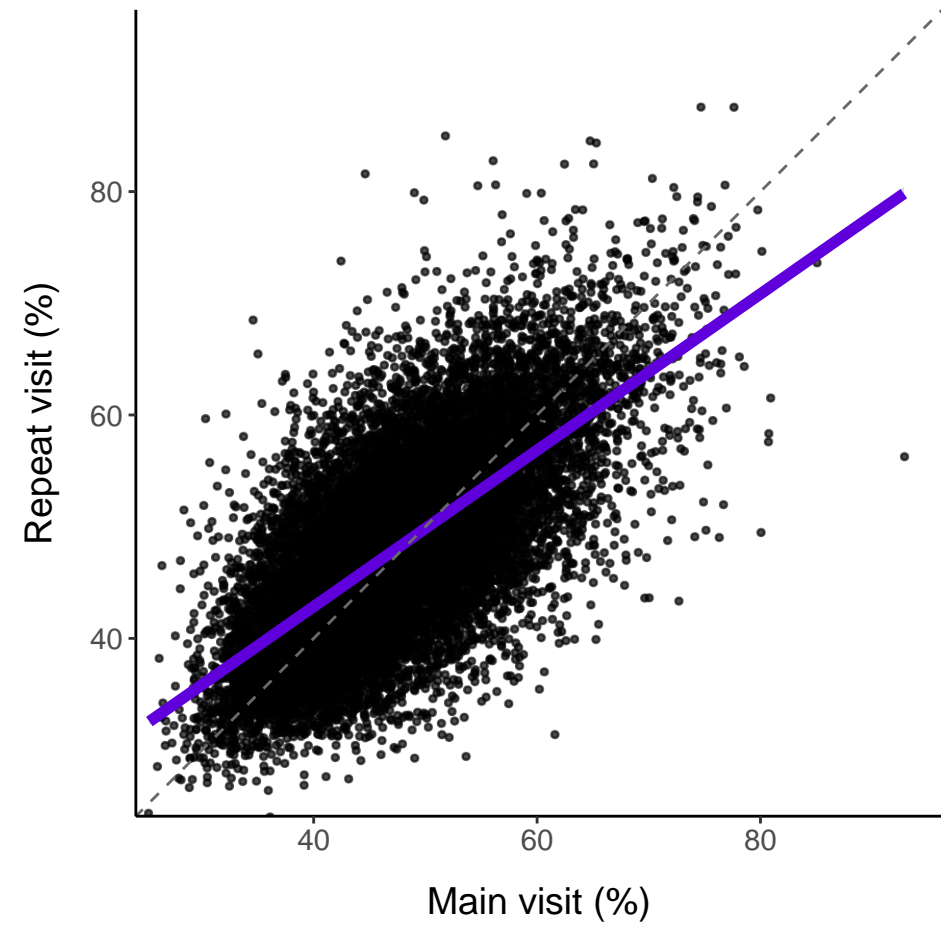
Small VLDL ratios
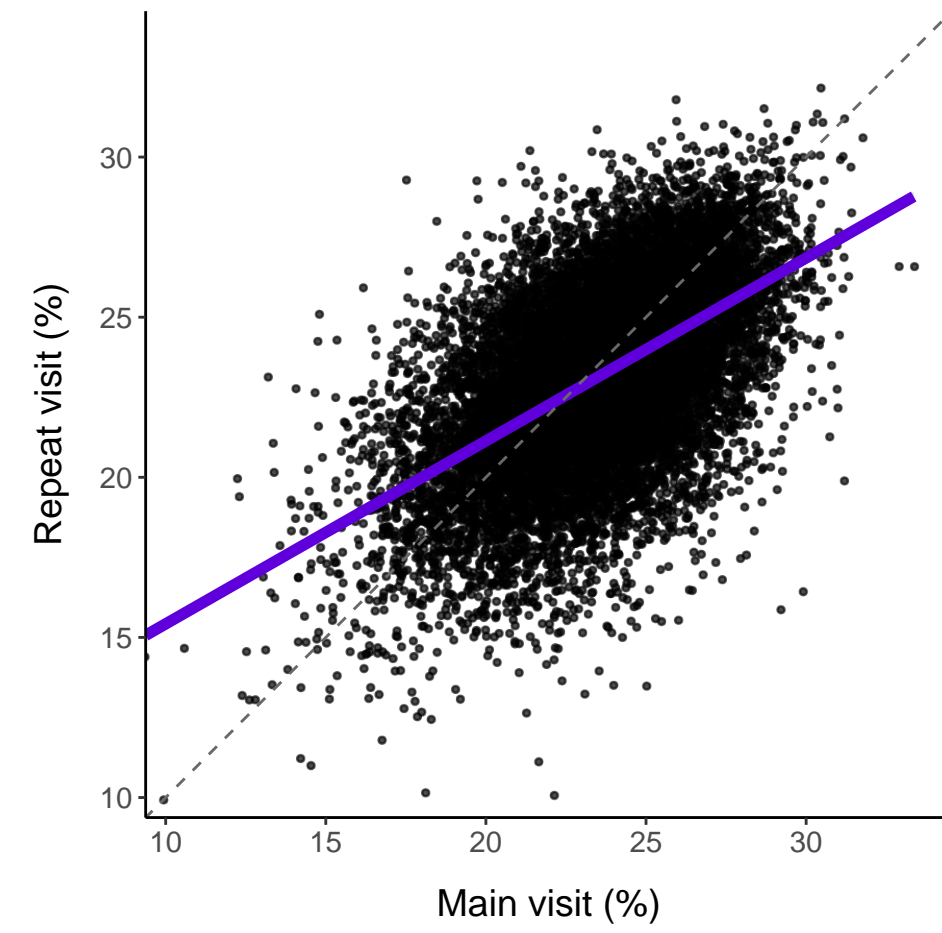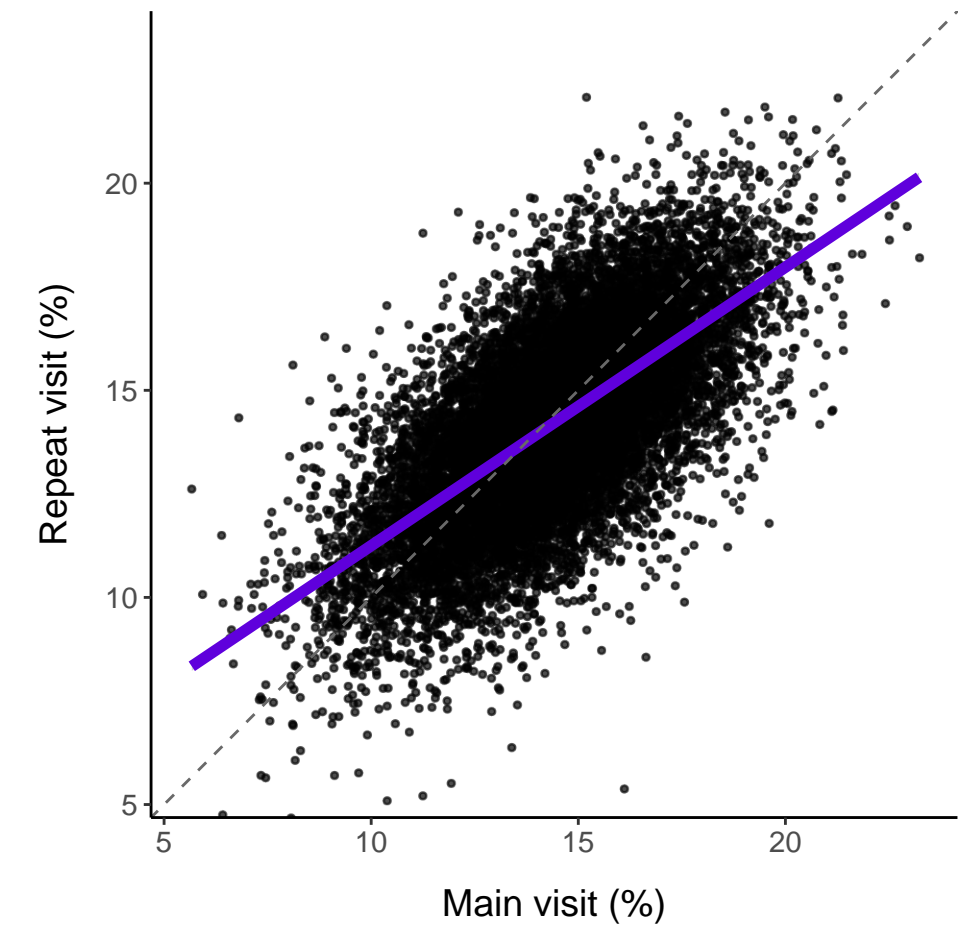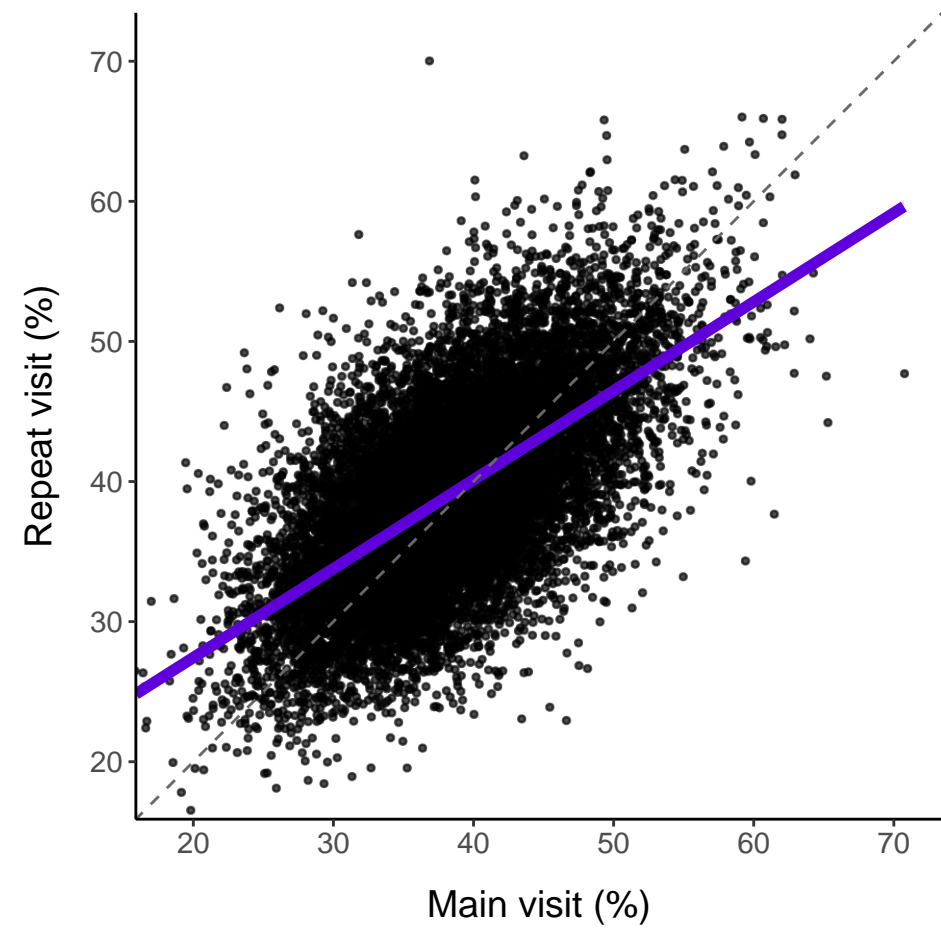
Very small VLDL ratios

XS_VLDL_PL_pct
R: 0.48
y = 15.07 + 0.49x
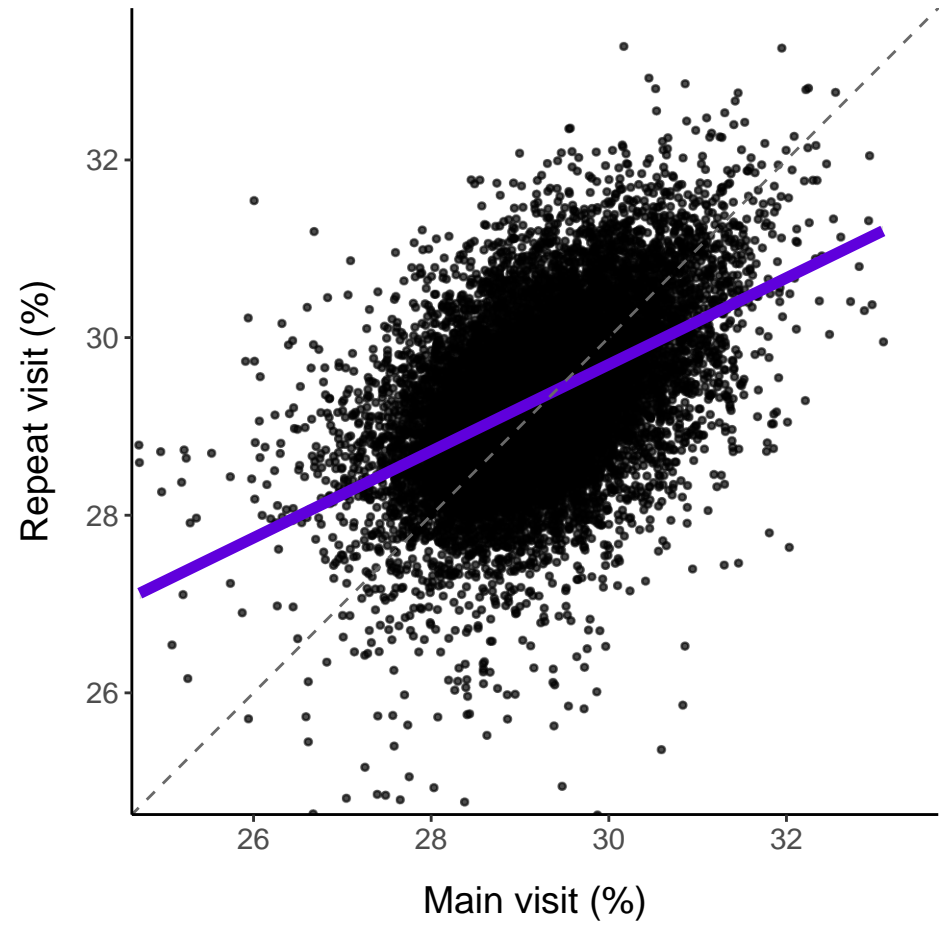
XS_VLDL_C_pct
R: 0.72
y = 12.81 + 0.74x

XS_VLDL_CE_pct
R: 0.73
y = 8.17 + 0.75x

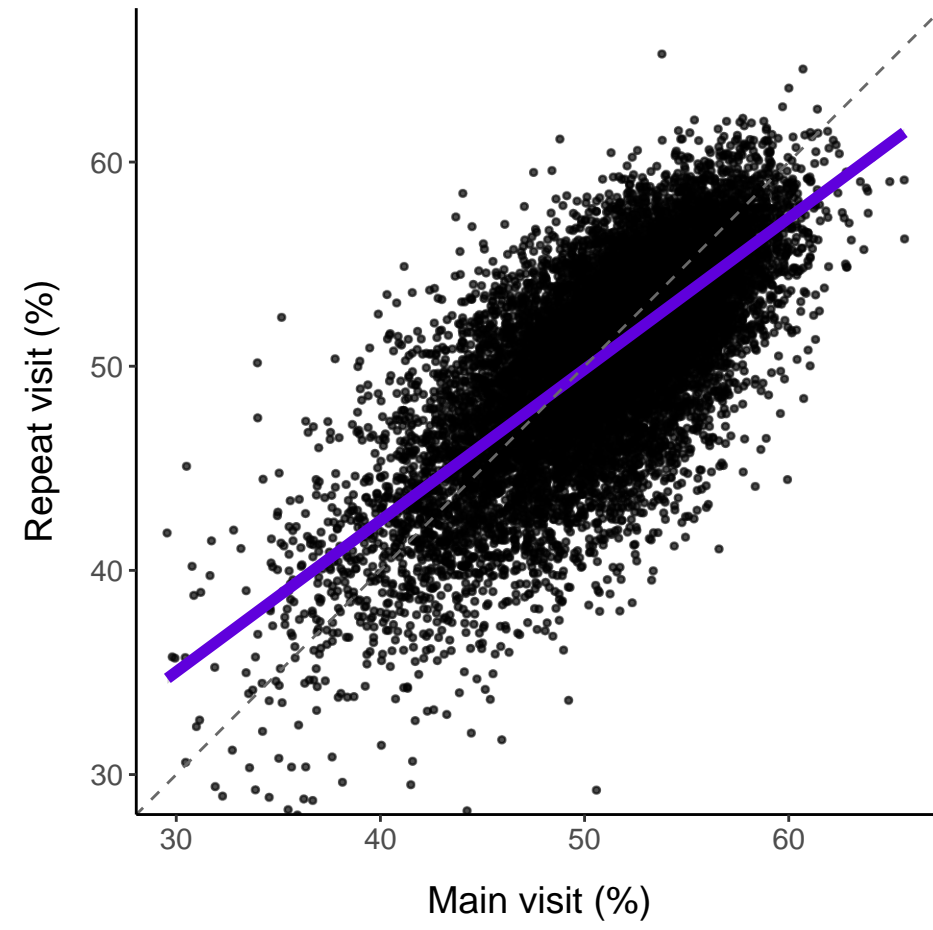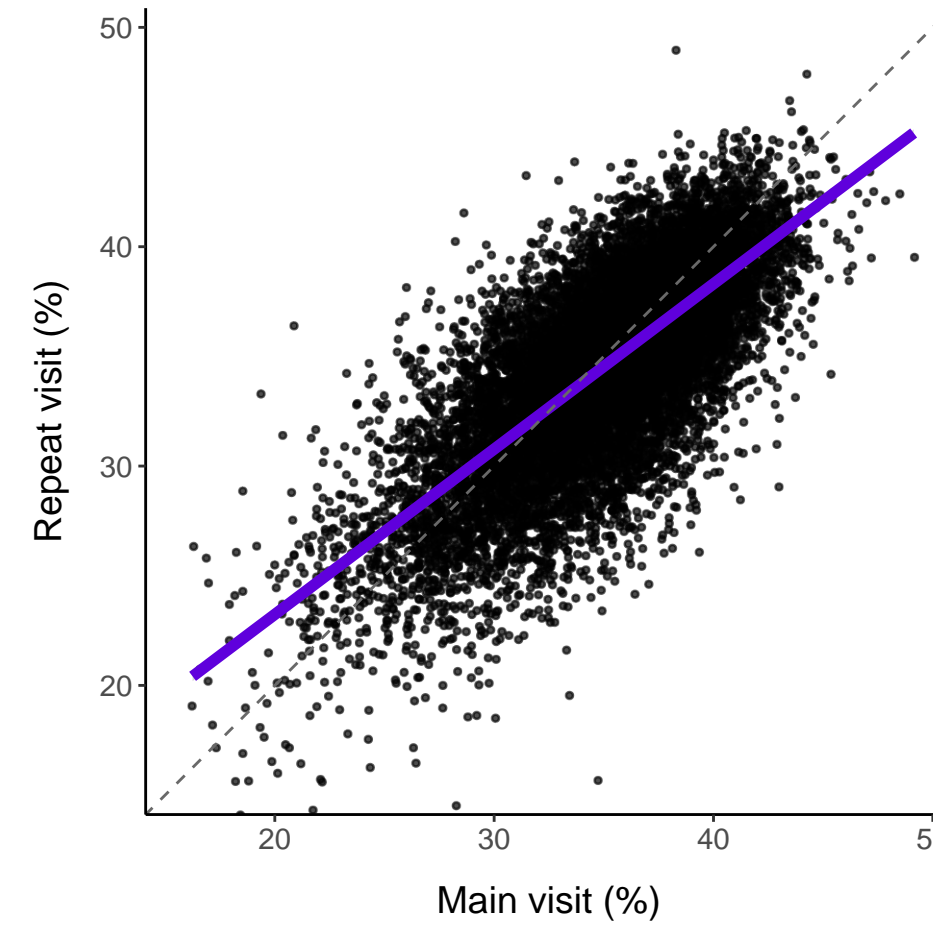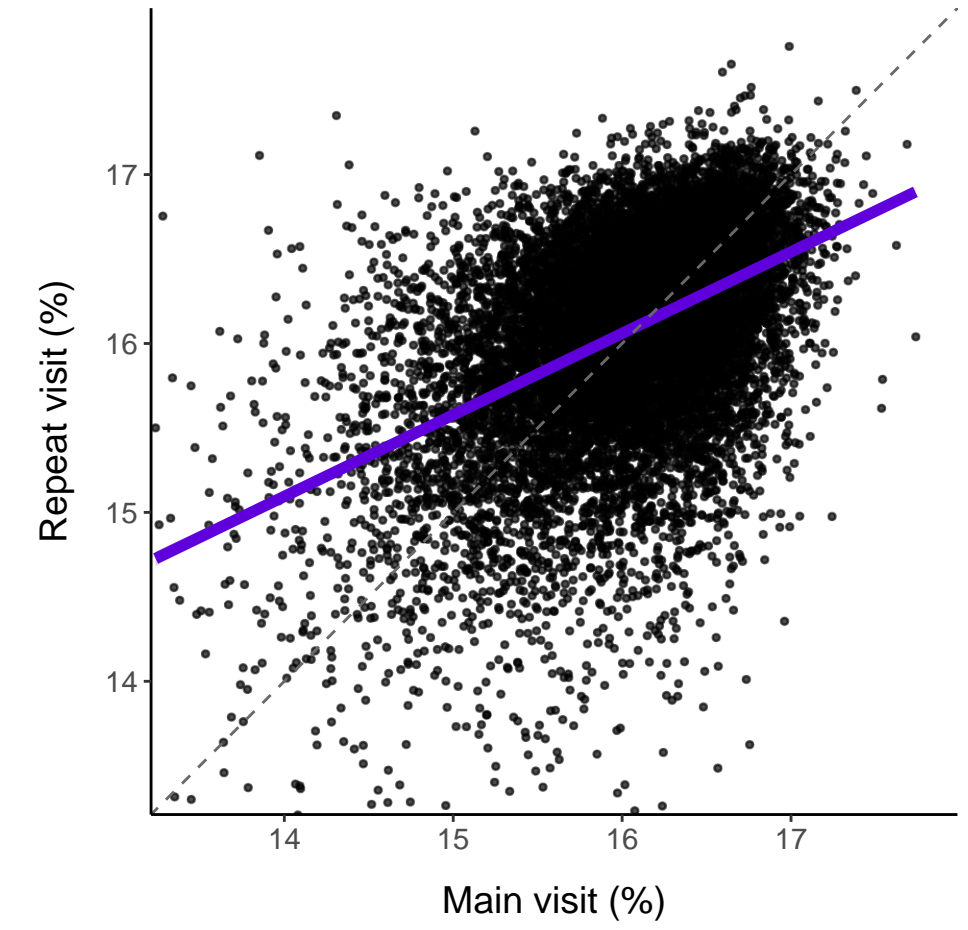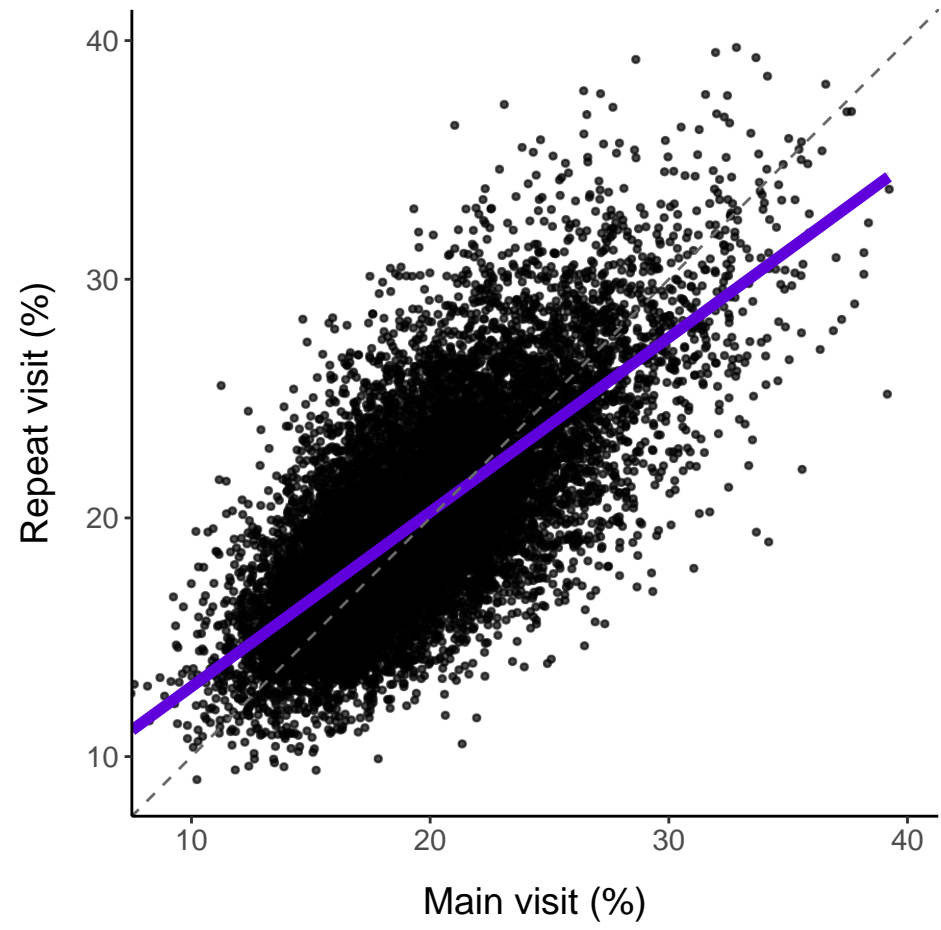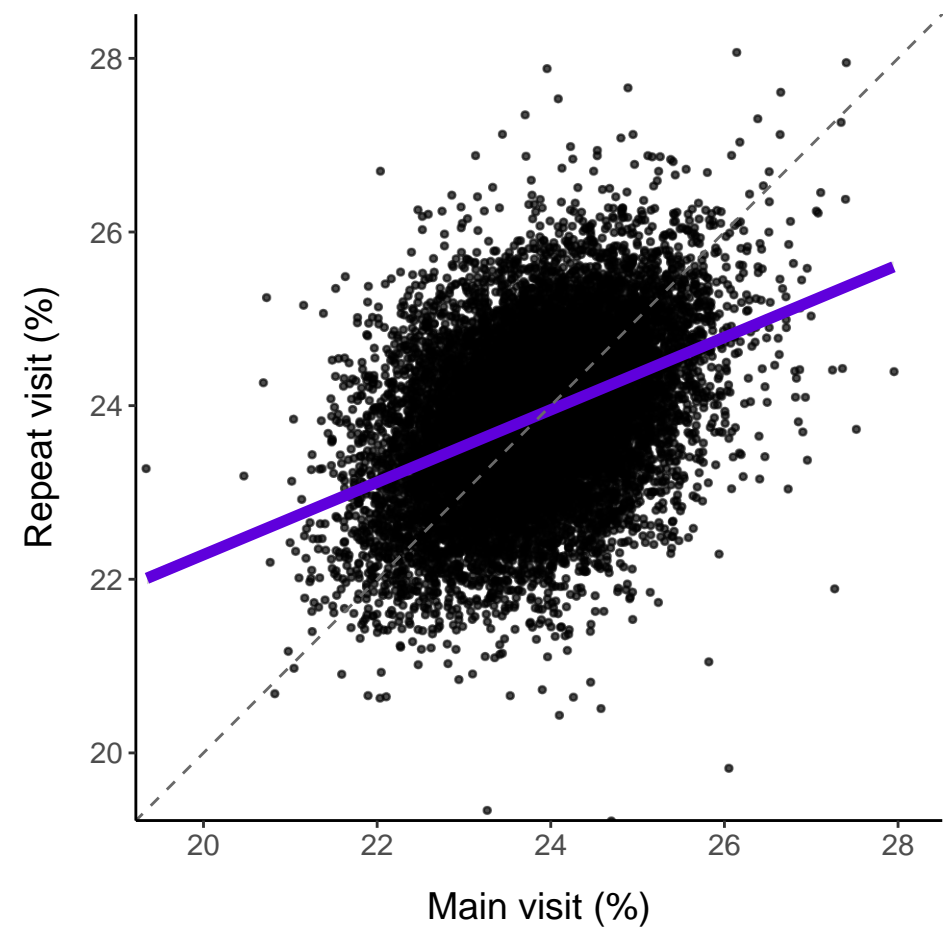**XS_VLDL_FC_pct**
R: 0.47
y = 8.34 + 0.48x

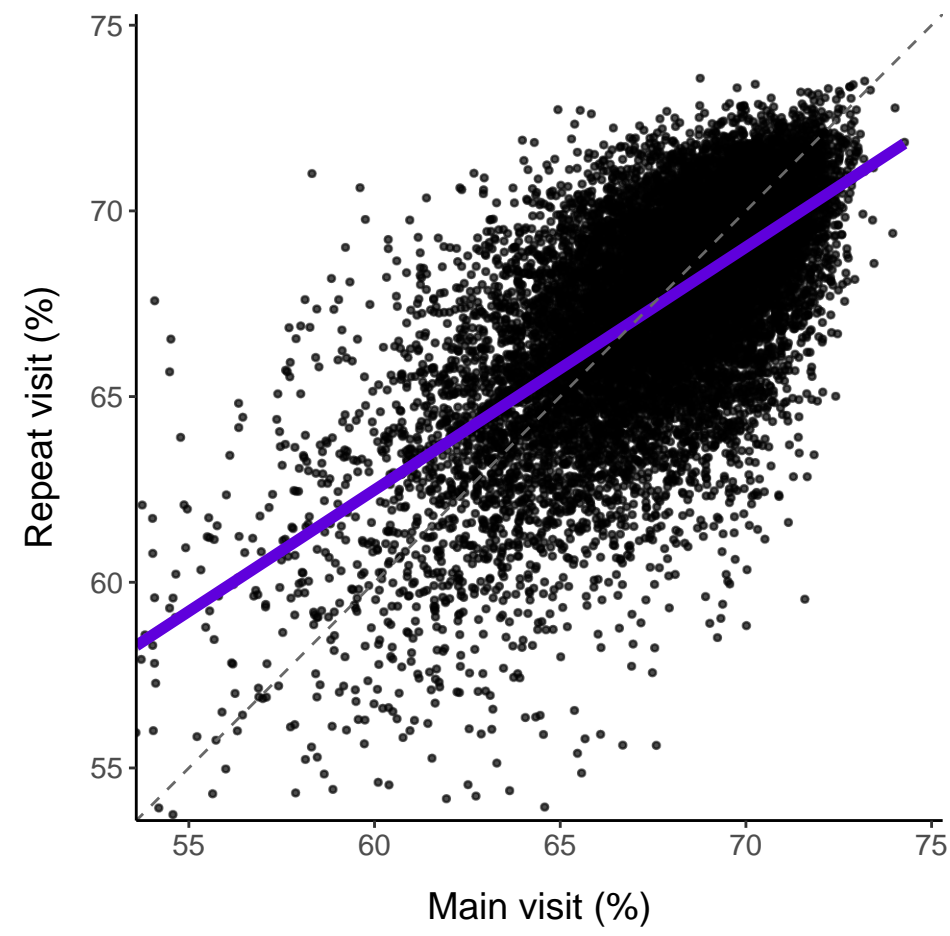**XS_VLDL_TG_pct**
R: 0.71
y = 5.62 + 0.73x

IDL ratios

IDL_PL_pct
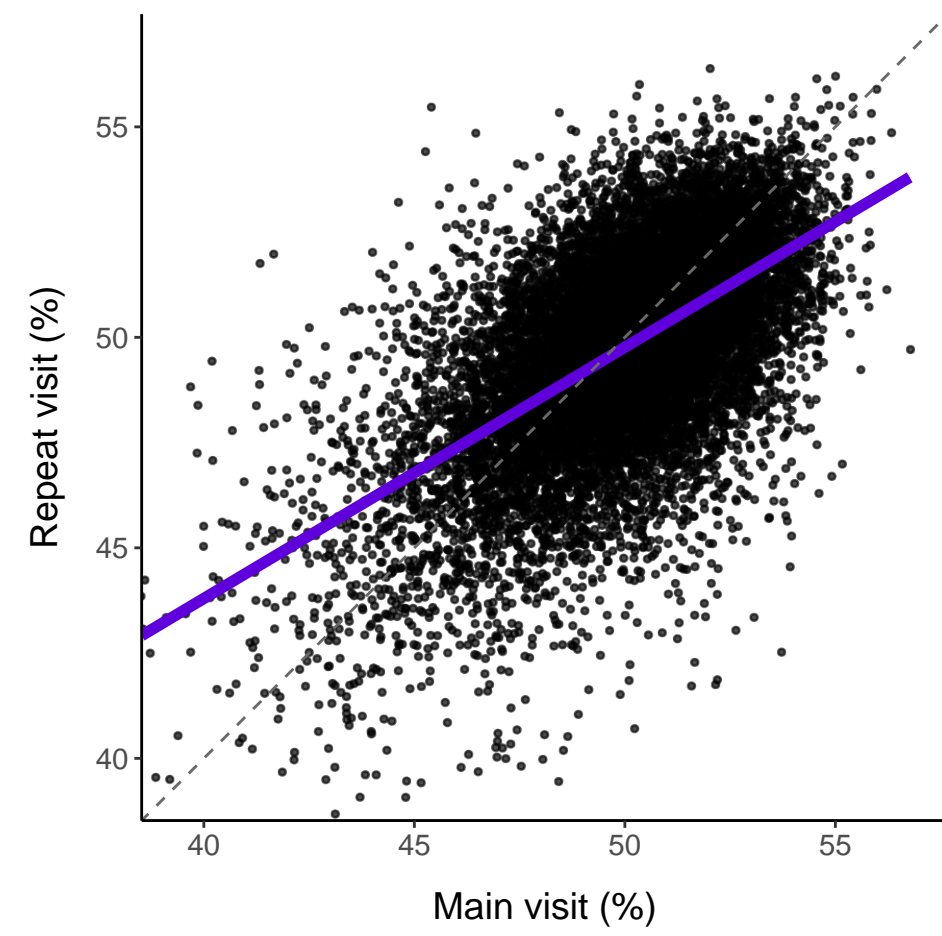R: 0.41
y = 13.94 + 0.42x
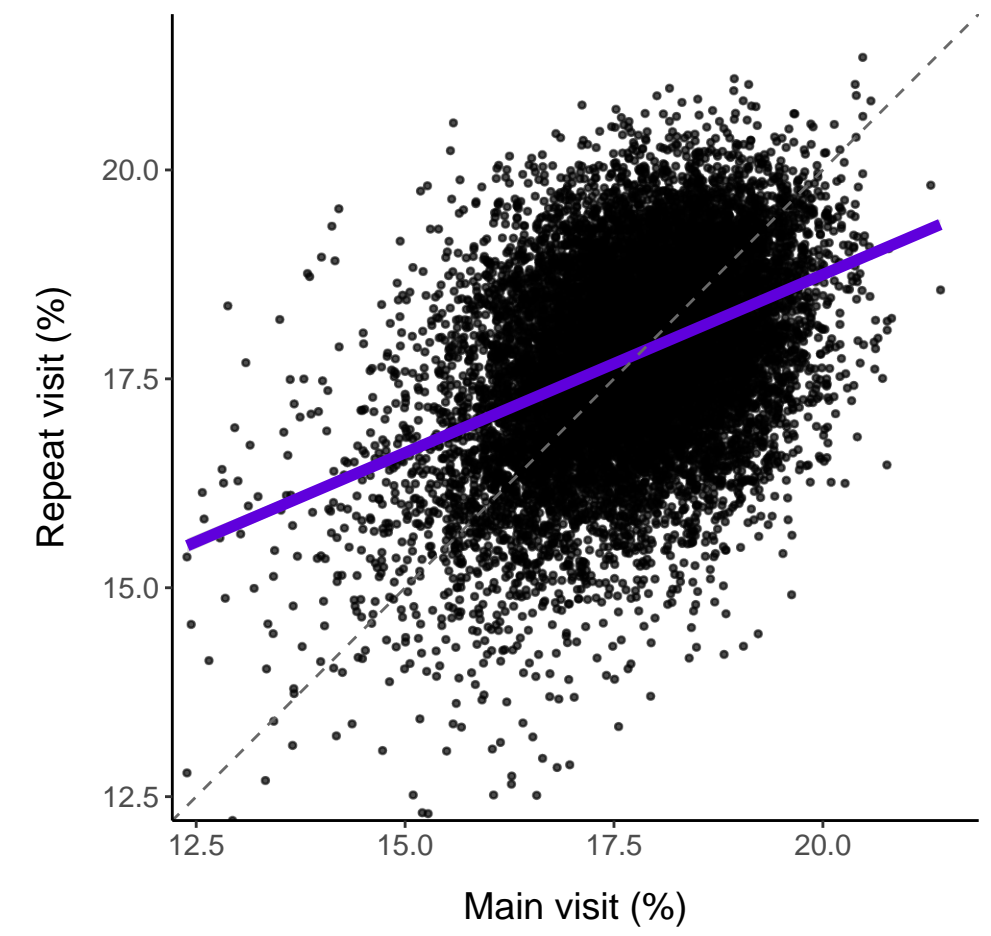
IDL_C_pct
R: 0.65
y = 23.26 + 0.65x

IDL_CE_pct
R: 0.59
y = 19.93 + 0.60x

IDL_FC_pct
R: 0.41
y = 10.22 + 0.43x

IDL_TG_pct
R: 0.69
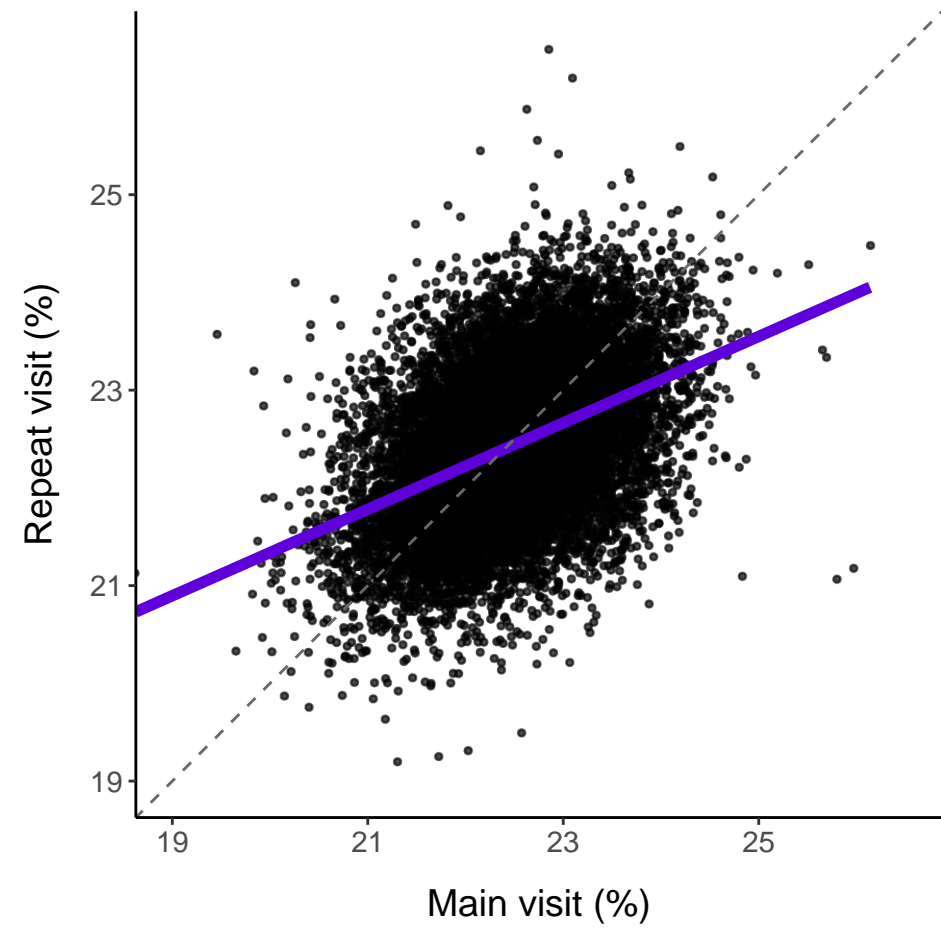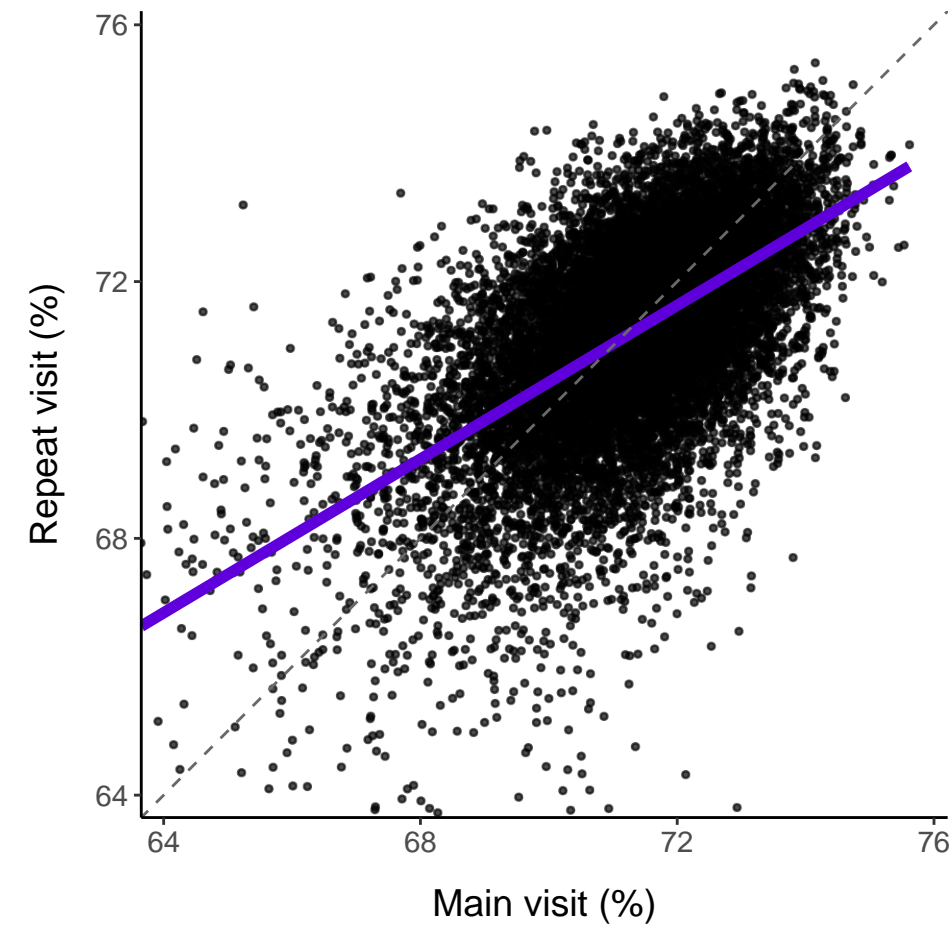y = 2.71 + 0.69x
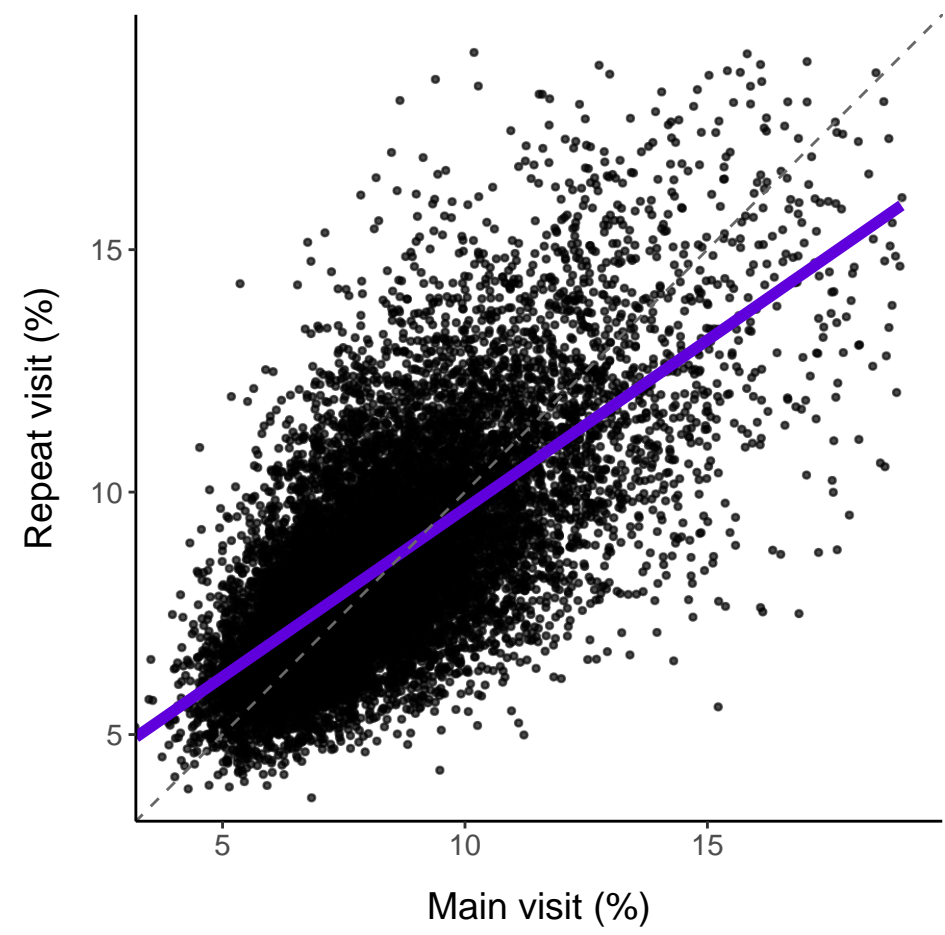
Large LDL ratios
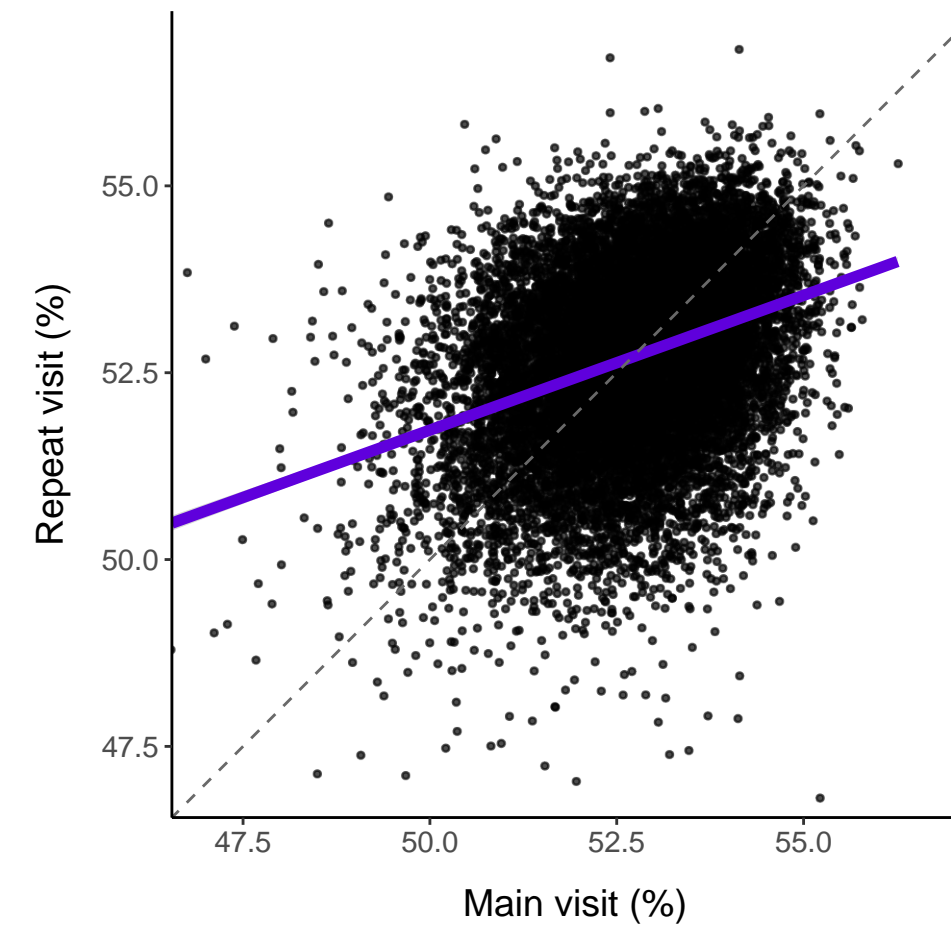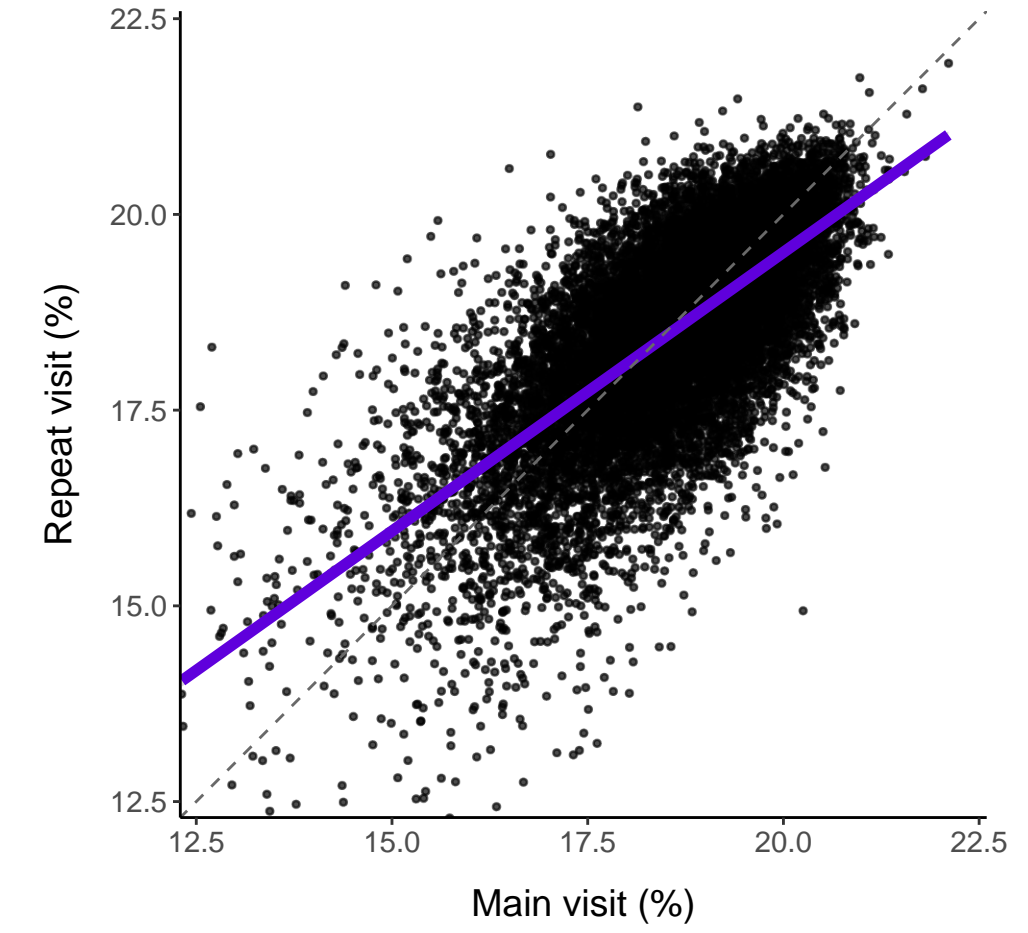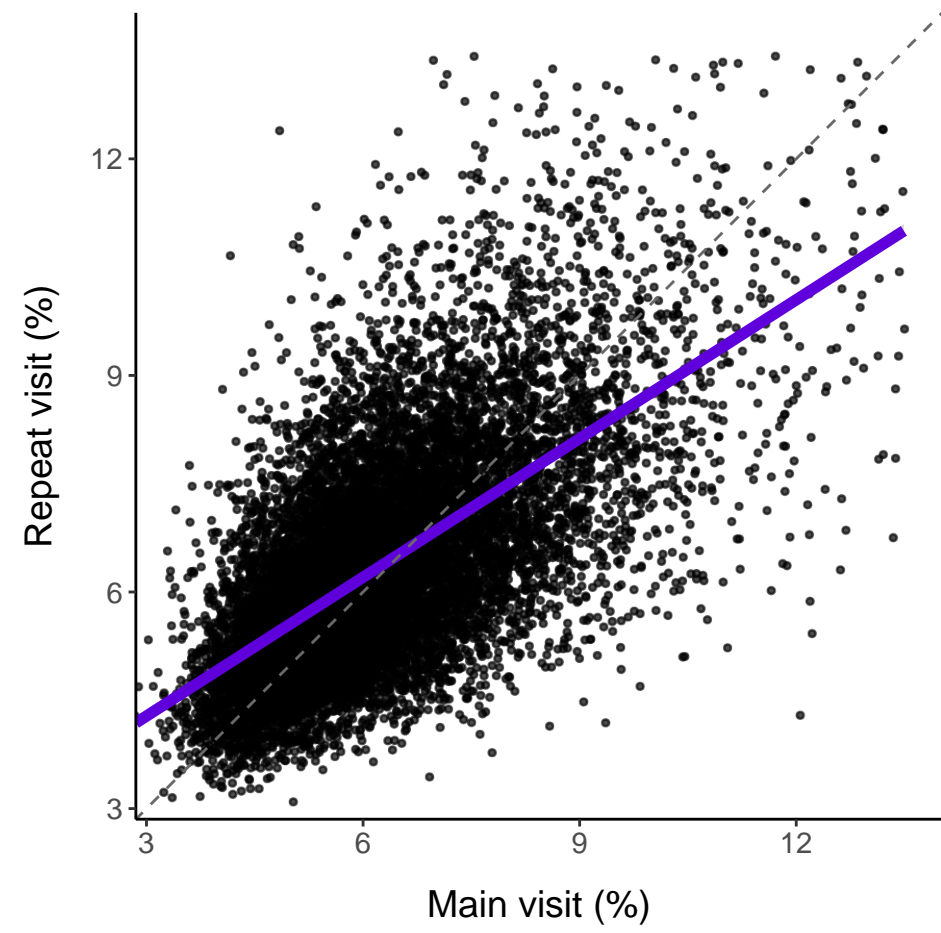
Medium LDL ratios

M_LDL_PL_pct

R: 0.34
y = 17.22 + 0.34x
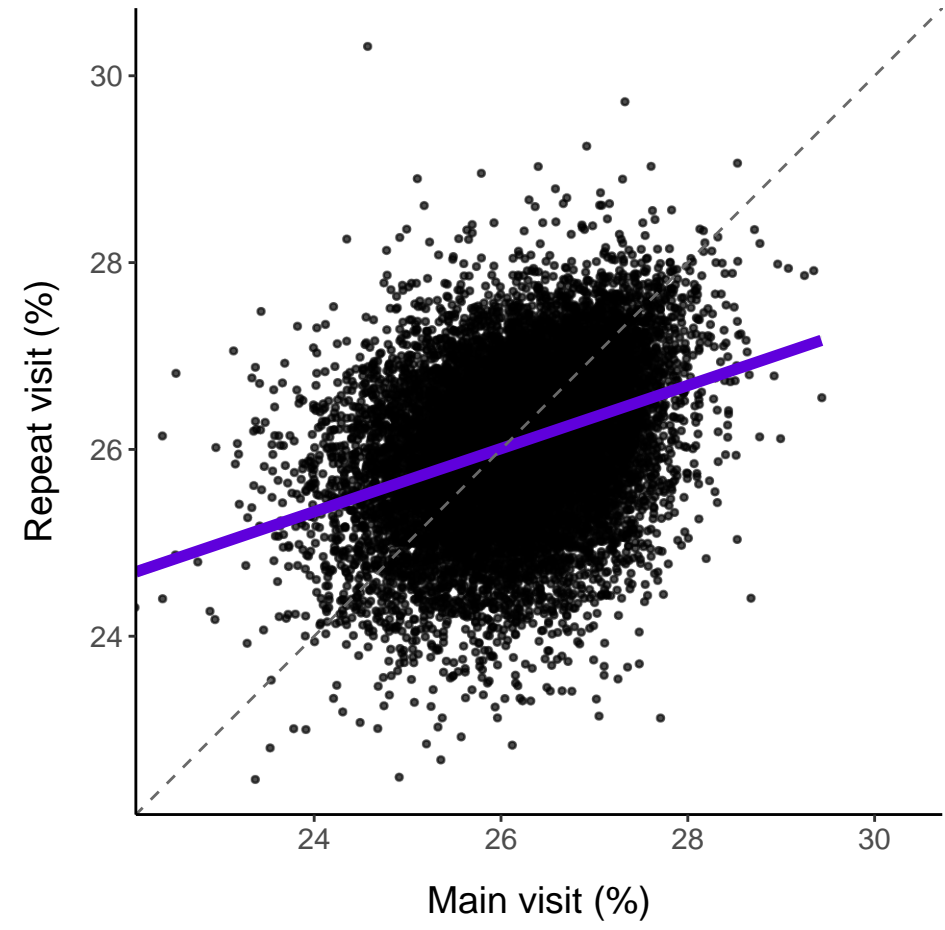
M_LDL_C_pct

R: 0.47
y = 34.75 + 0.49x

M_LDL_CE_pct

R: 0.49
y = 25.14 + 0.49x

M_LDL_FC_pct

R: 0.66
y = 6.72 + 0.64x

M_LDL_TG_pct

R: 0.59
y = 2.28 + 0.59x

Small LDL ratios

S_LDL_PL_pct

R: 0.48
y = 16.34 + 0.48x

S_LDL_C_pct

R: 0.45
y = 33.65 + 0.47x
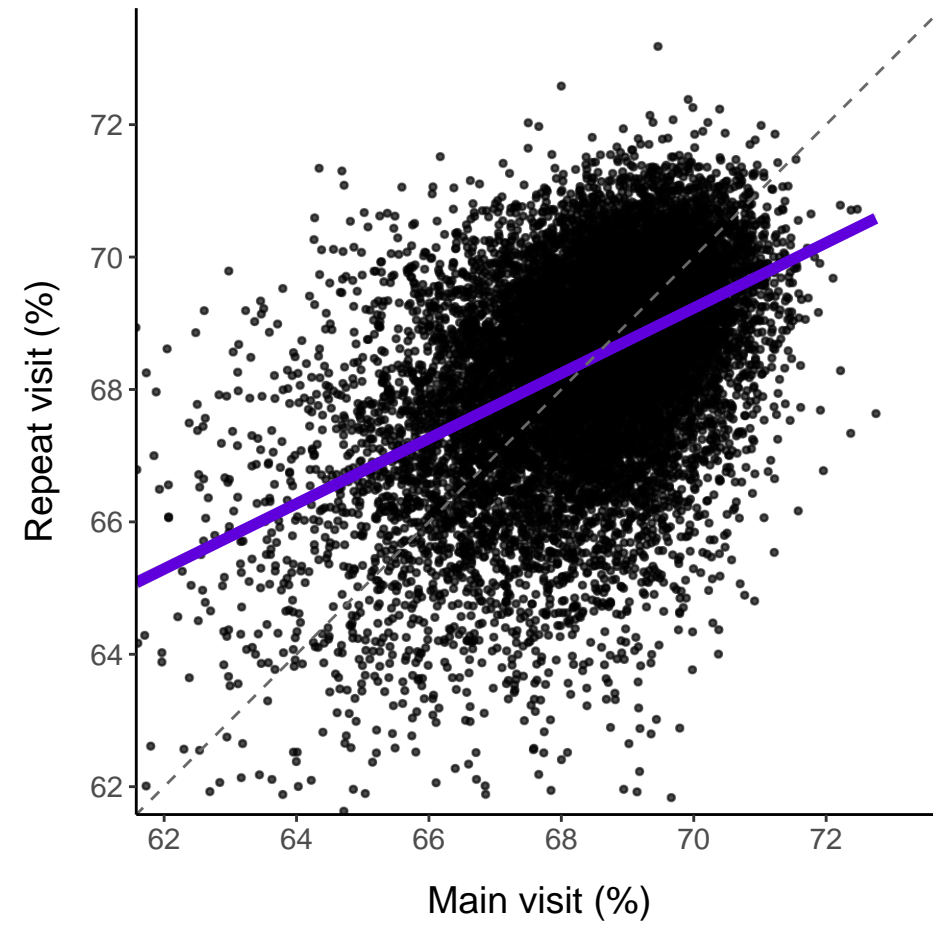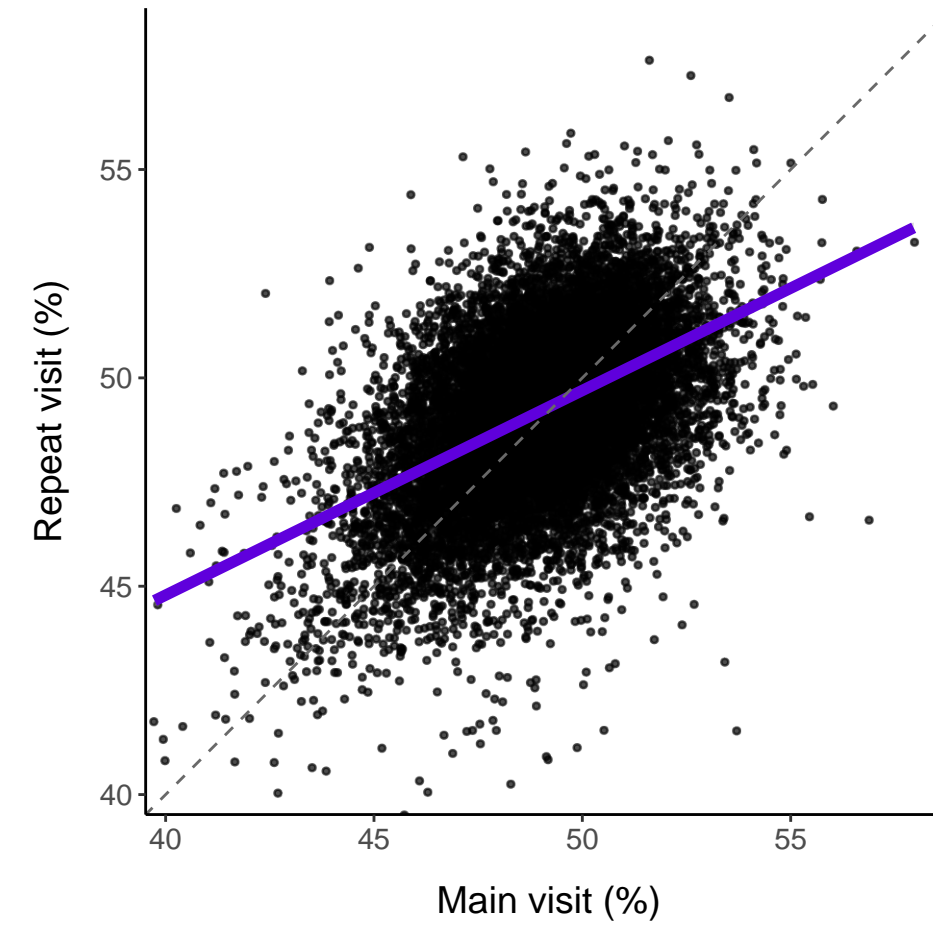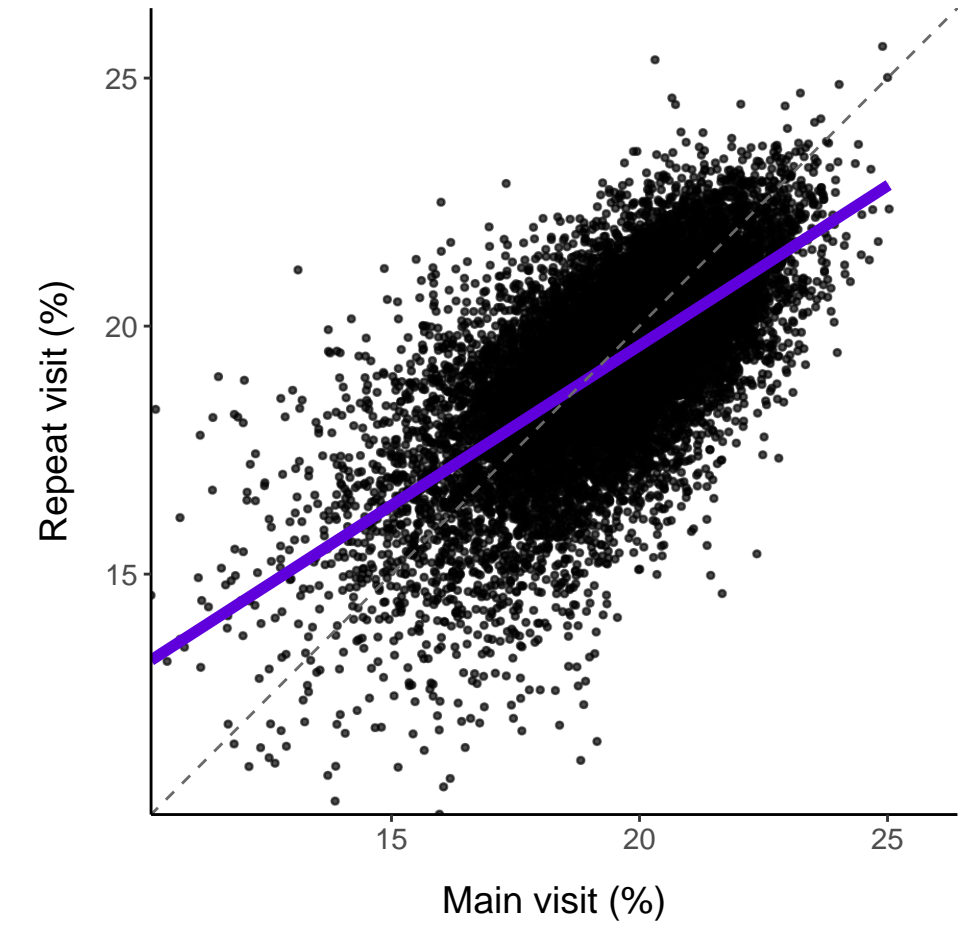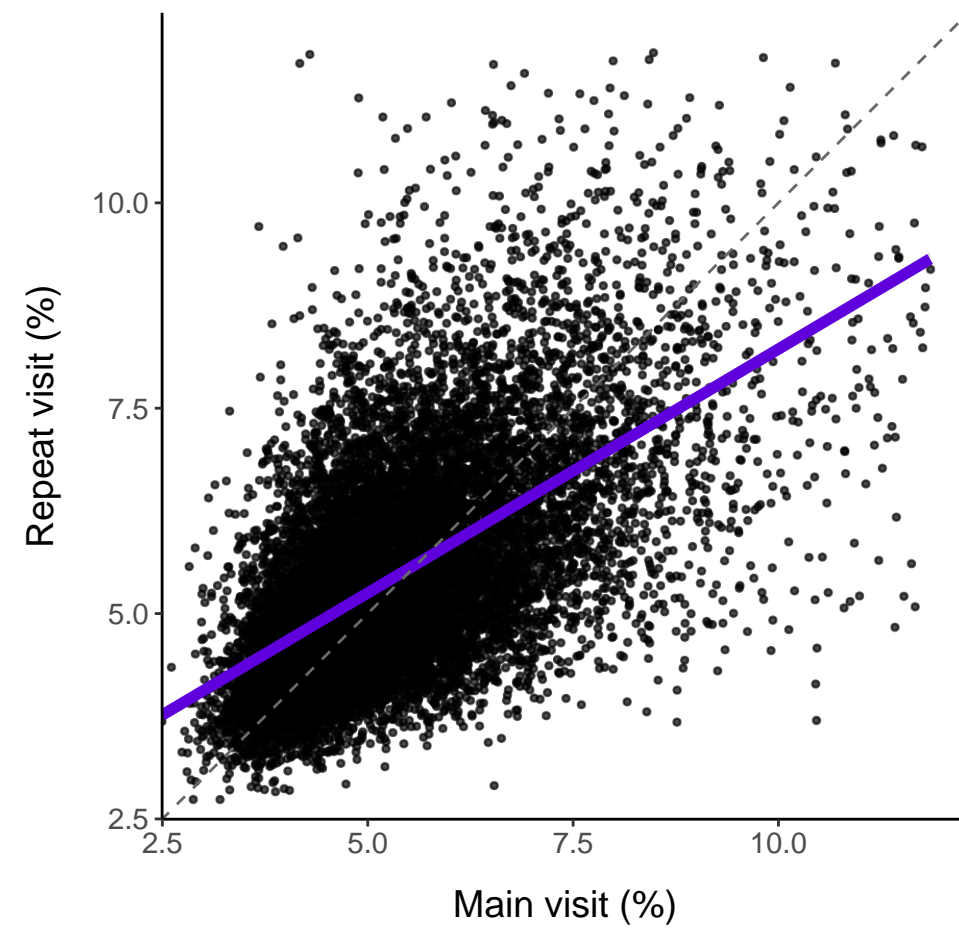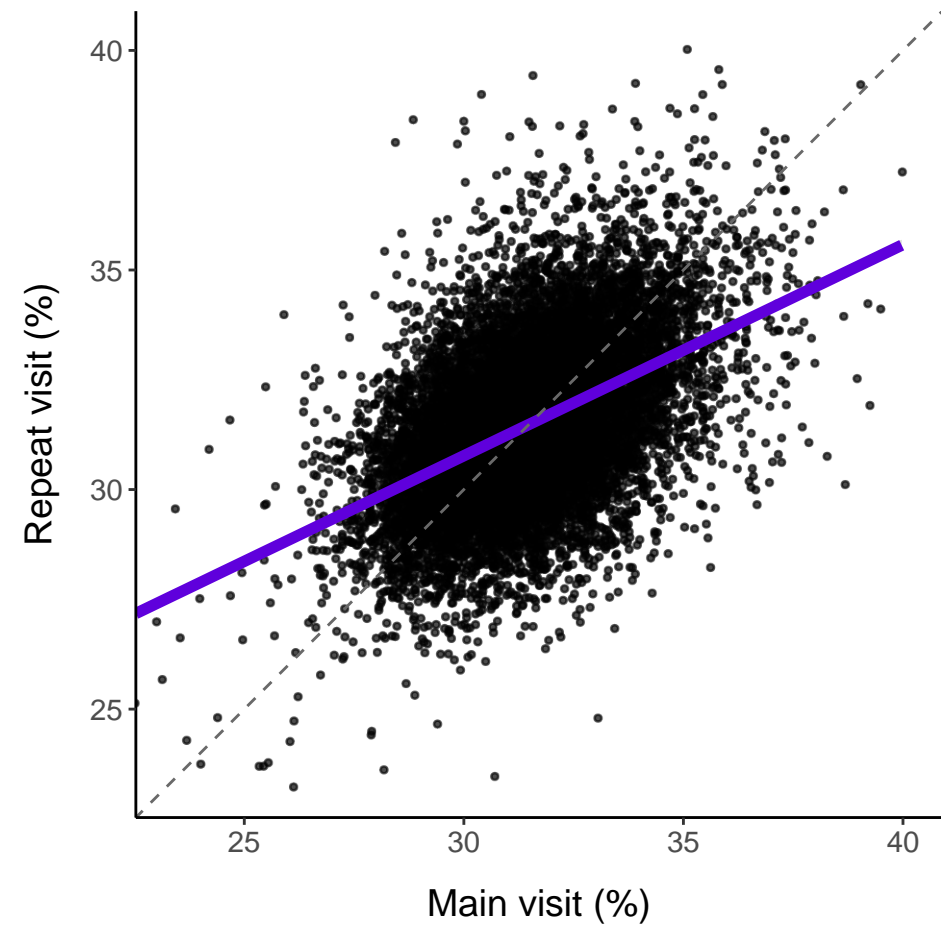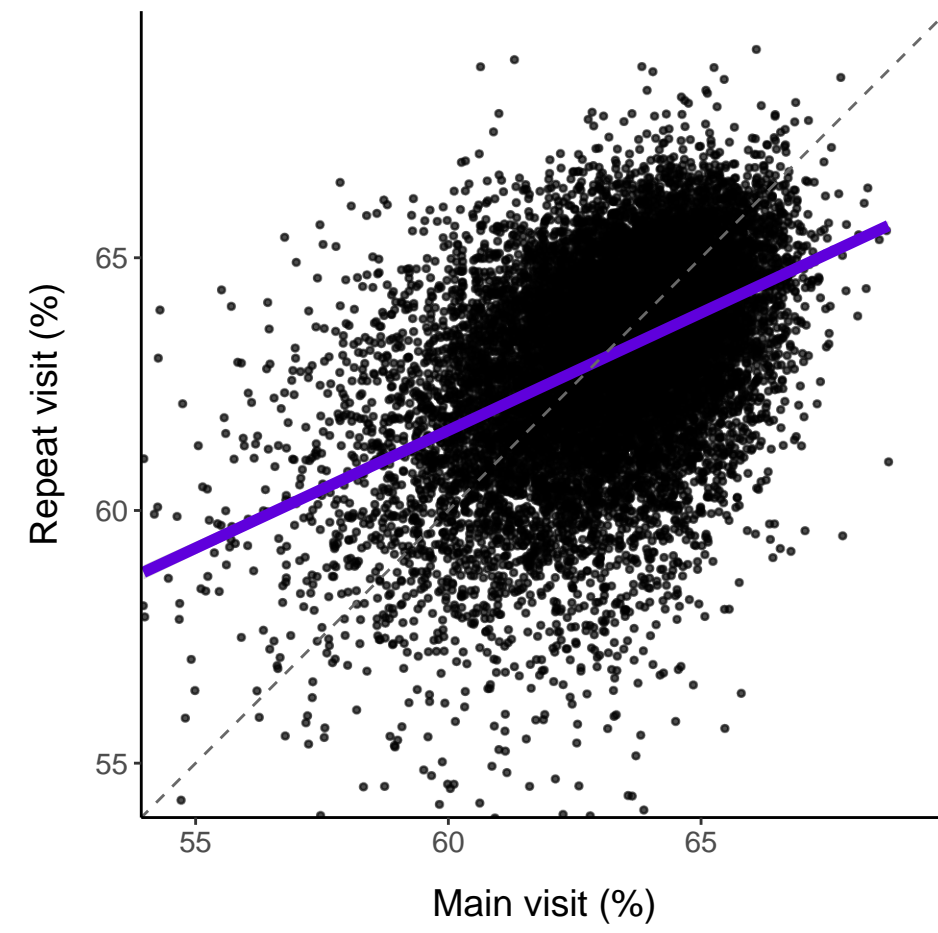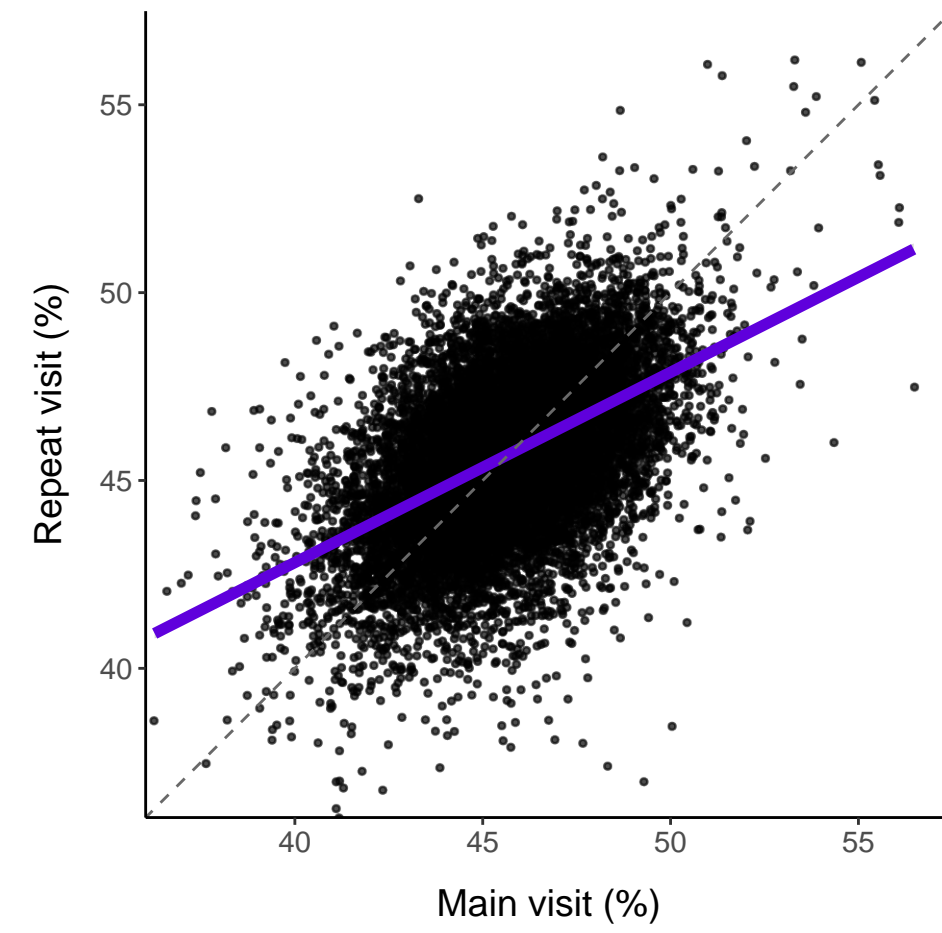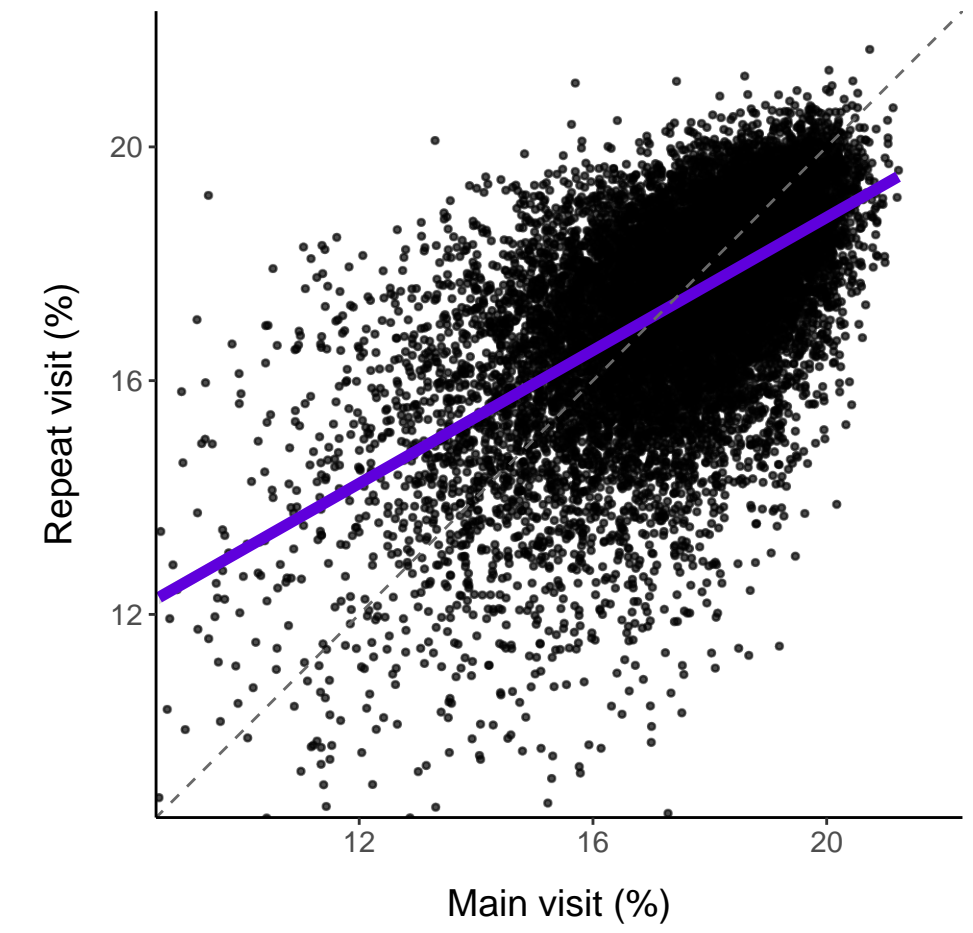
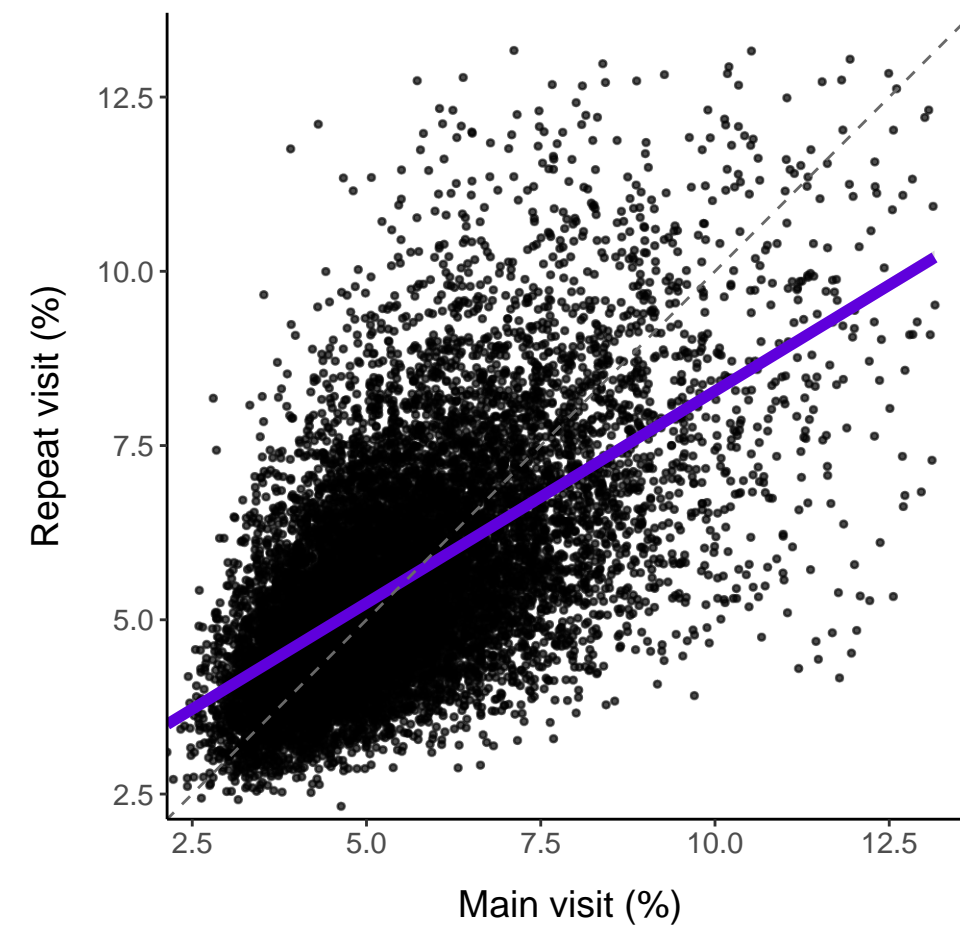**S_LDL_CE_pct**

R: 0.5
y = 22.56 + 0.51x

S_LDL_FC_pct

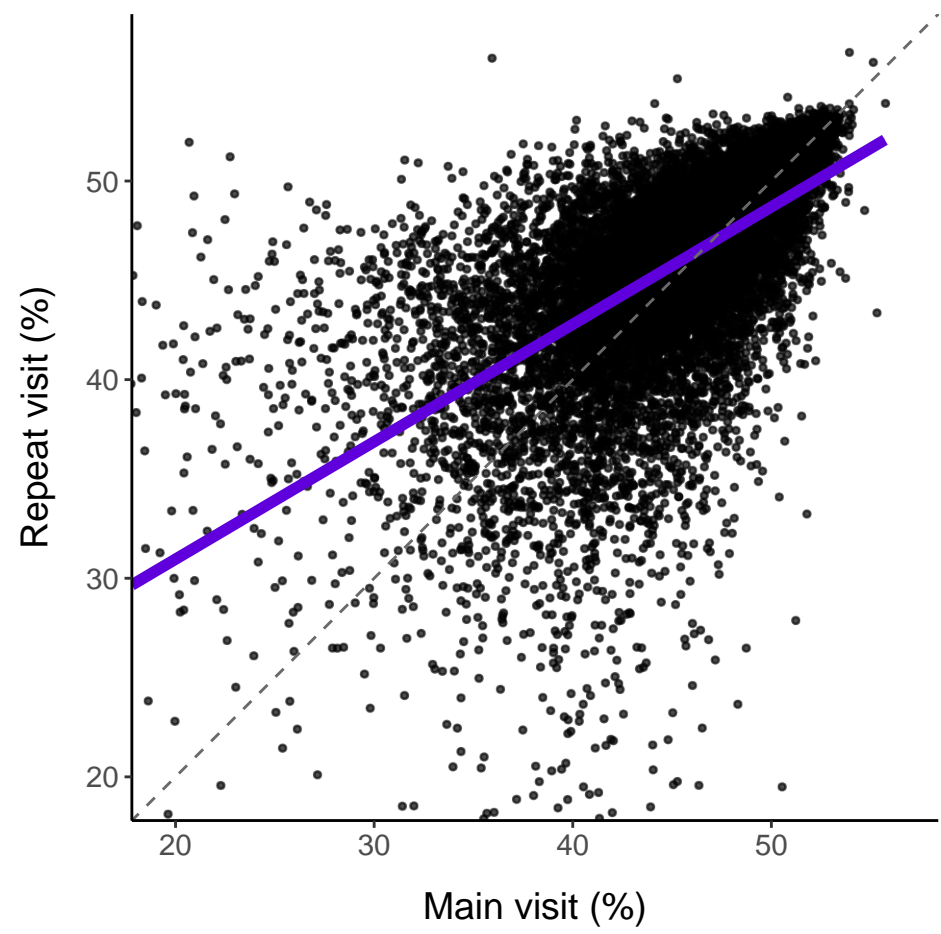R: 0.59
y = 7.41 + 0.57x

S_LDL_TG_pct

R: 0.61
y = 2.20 + 0.61x
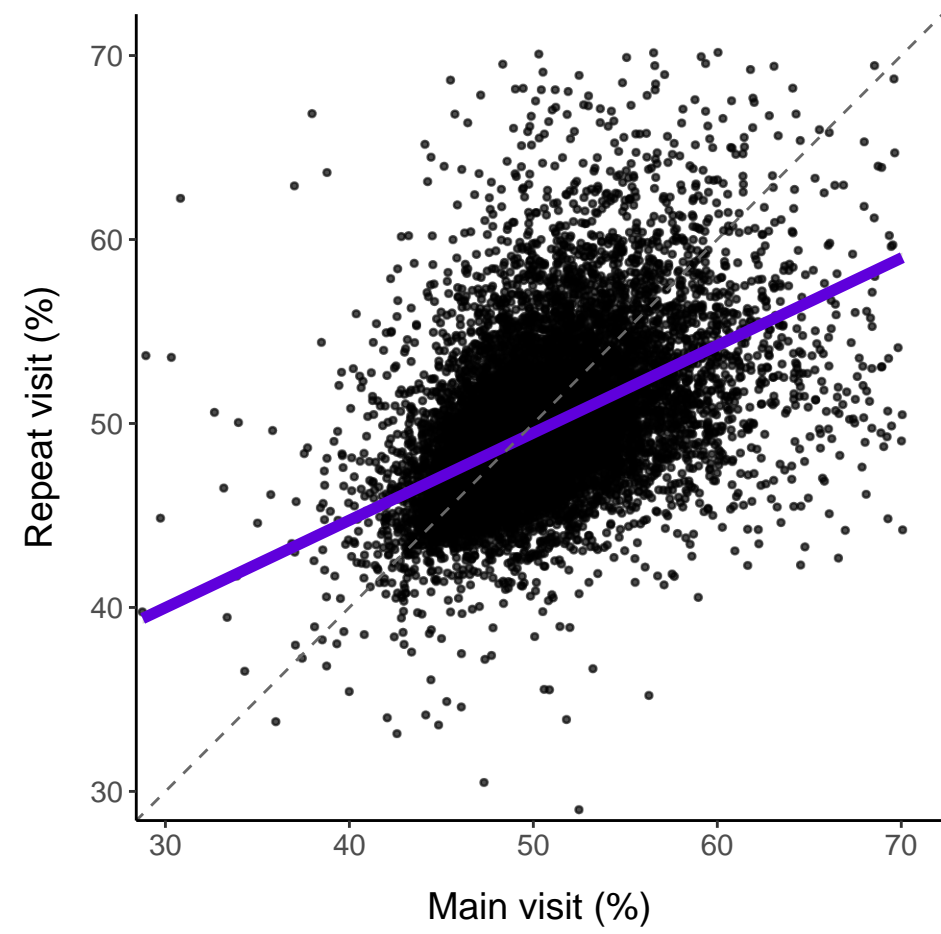
Very large HDL ratios
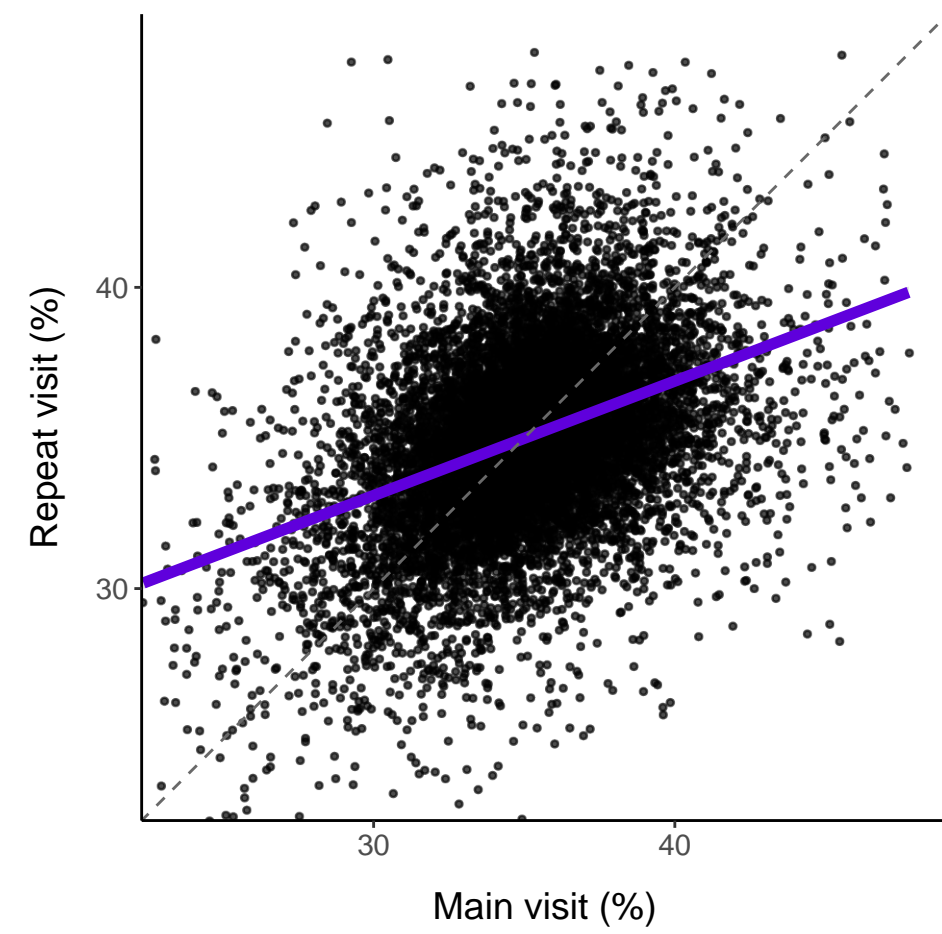
XL_HDL_PL_pct
R: 0.62
y = 19.14 + 0.59x

XL_HDL_C_pct
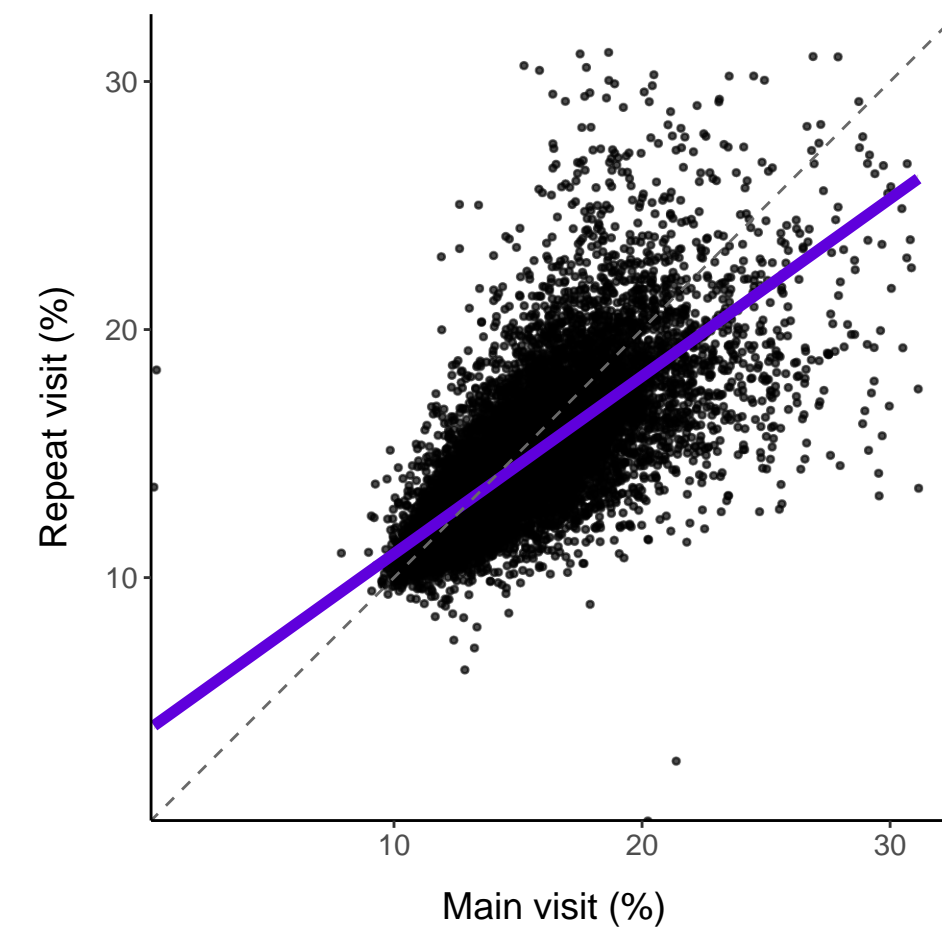R: 0.5
y = 25.74 + 0.48x

XL_HDL_CE_pct
R: 0.39
y = 21.69 + 0.38x

XL_HDL_FC_pct
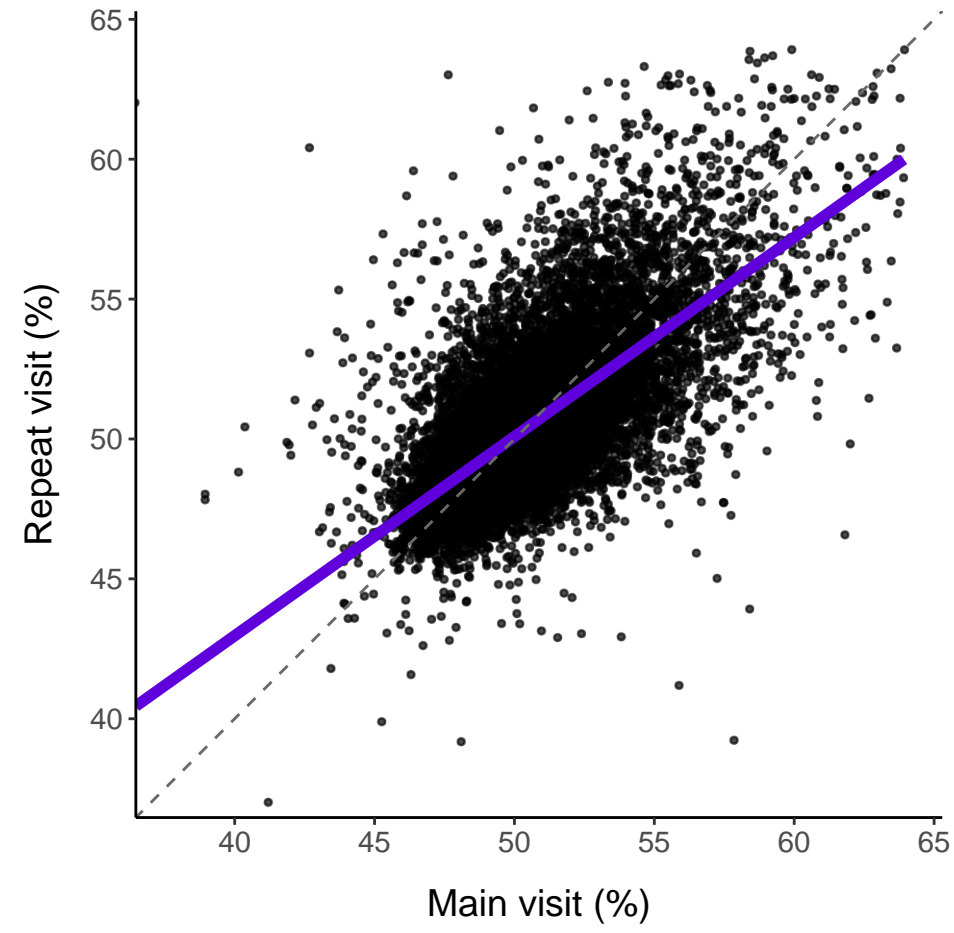R: 0.74
y = 3.80 + 0.72x

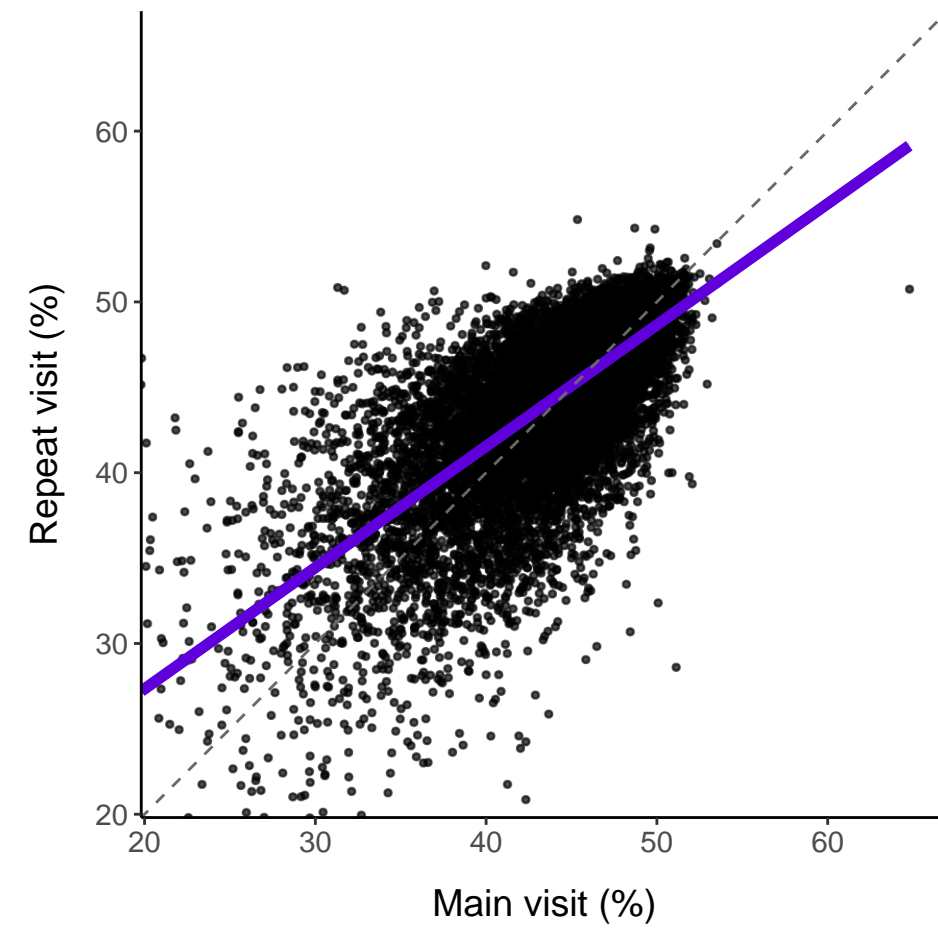**XL_HDL_TG_pct**
R: 0.65
y = 1.66 + 0.62x
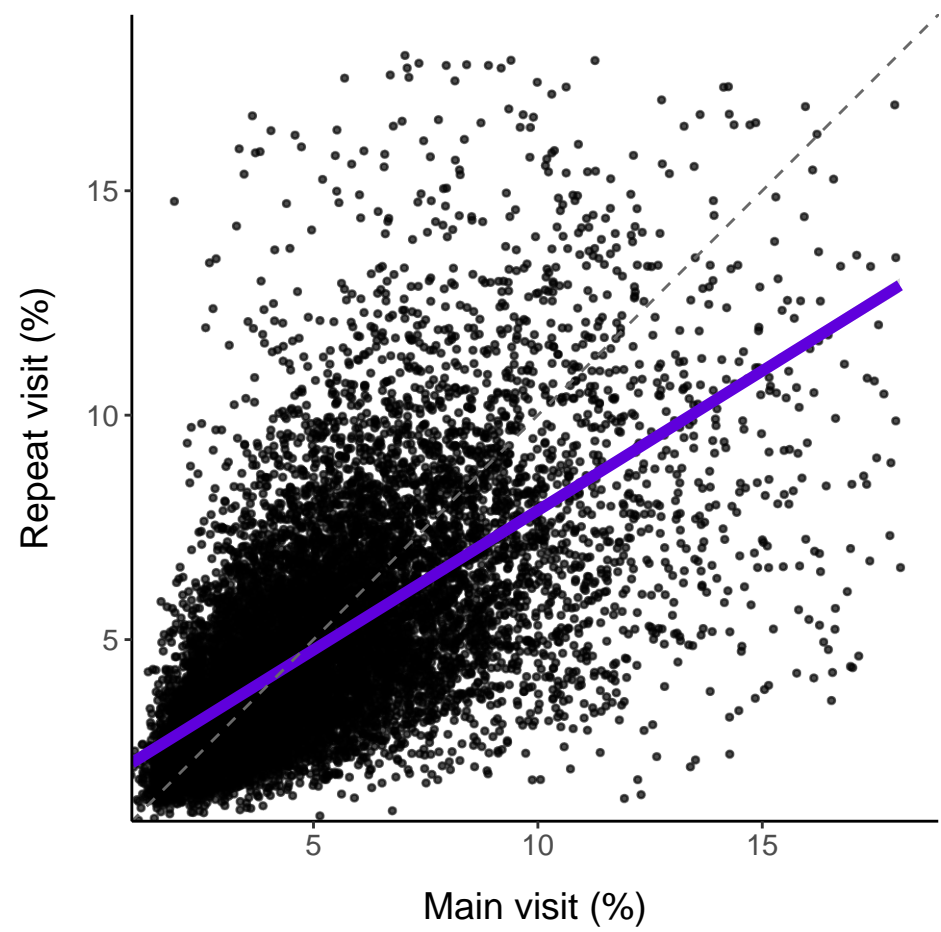
Large HDL ratios
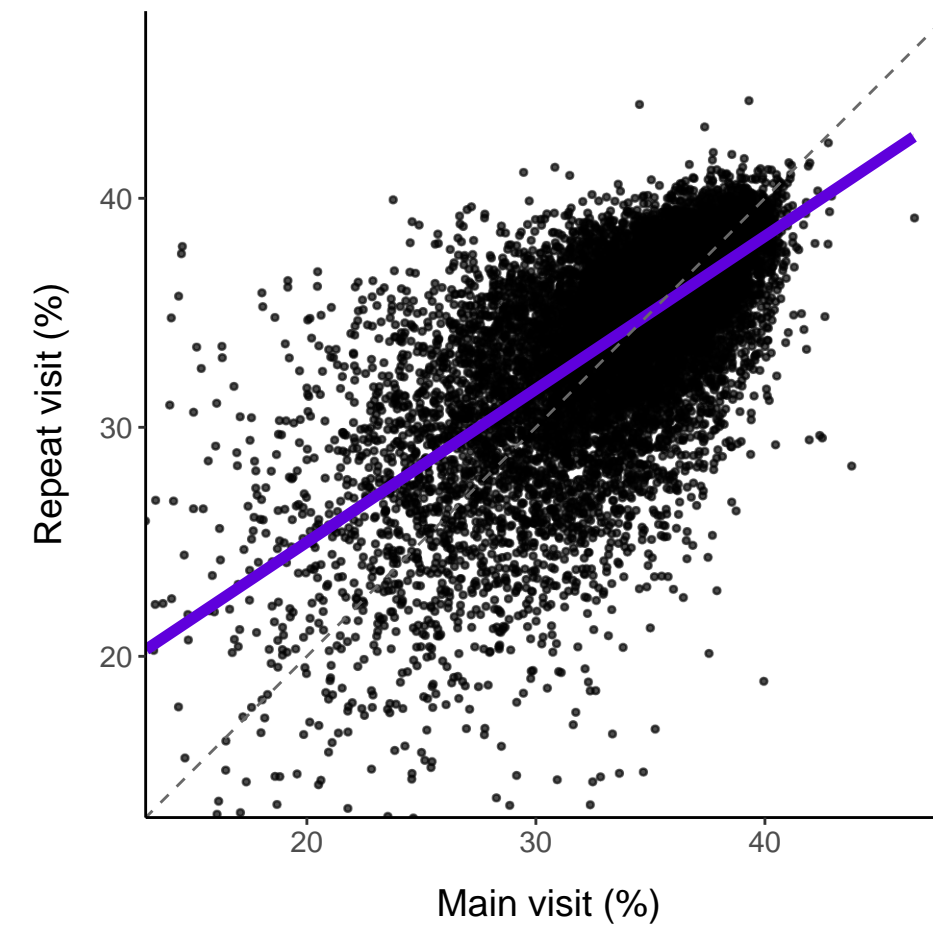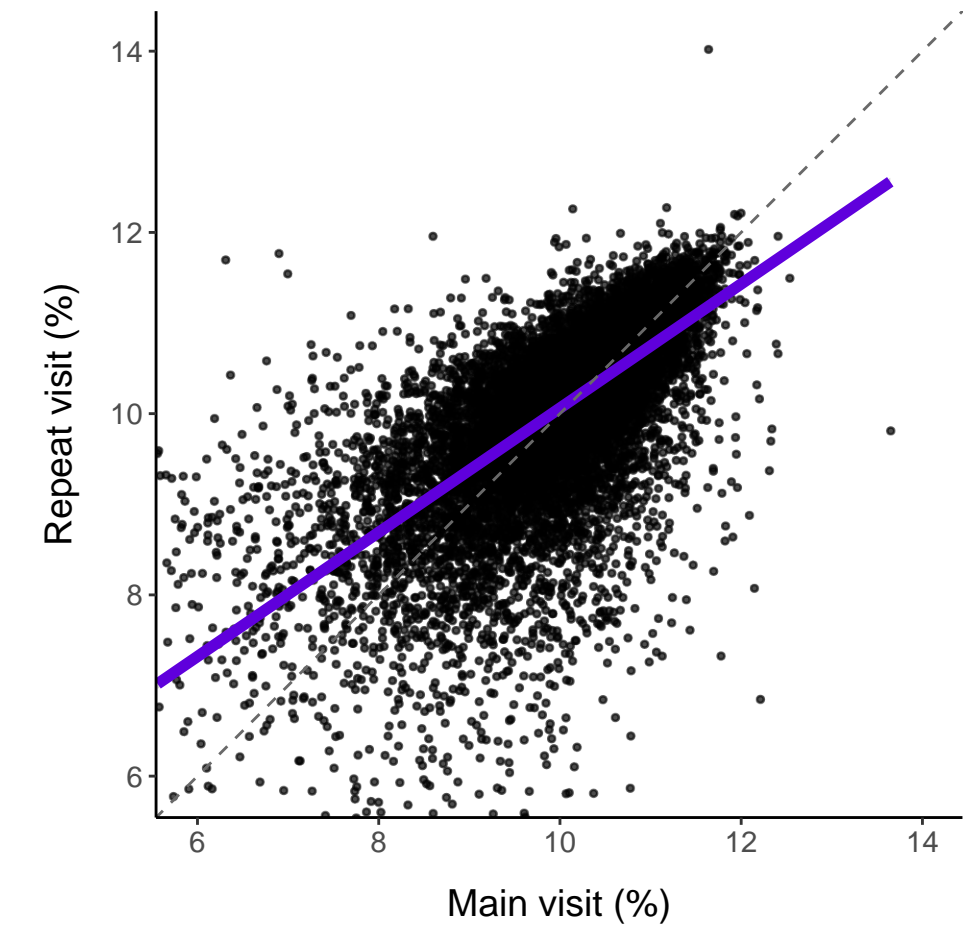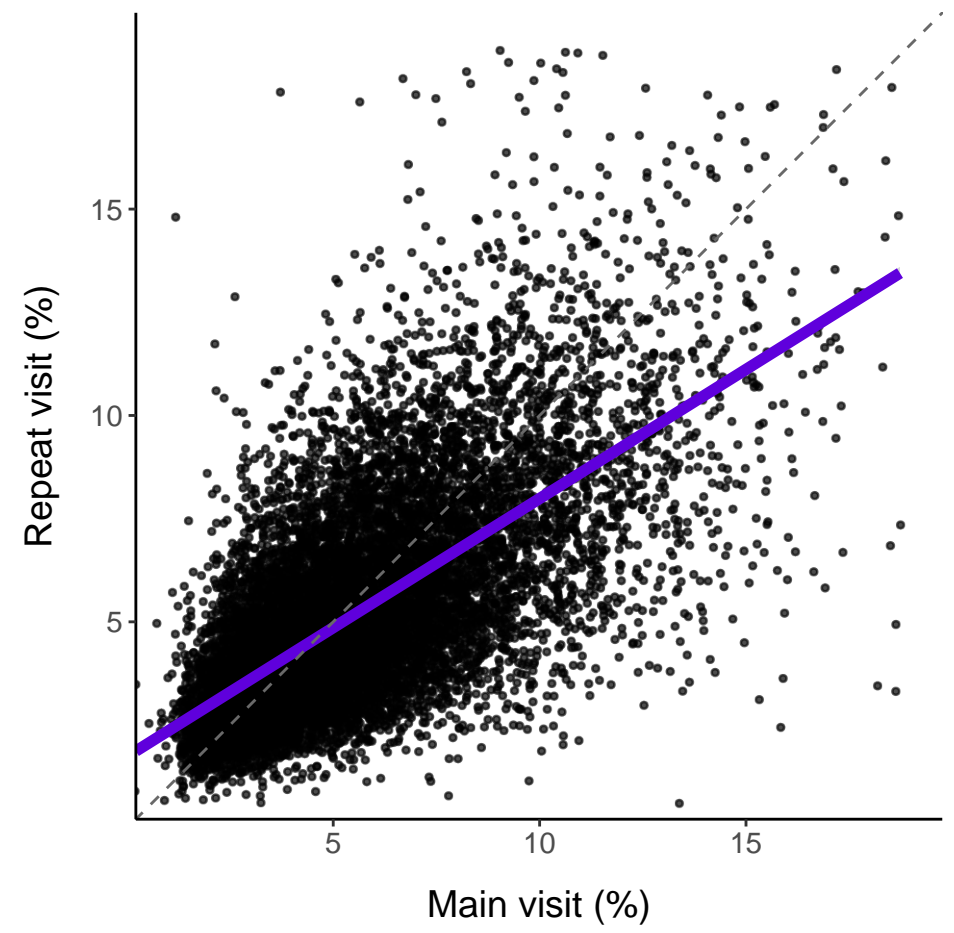
Medium HDL ratios

M_HDL_PL_pct

R: 0.66
y = 15.60 + 0.67x
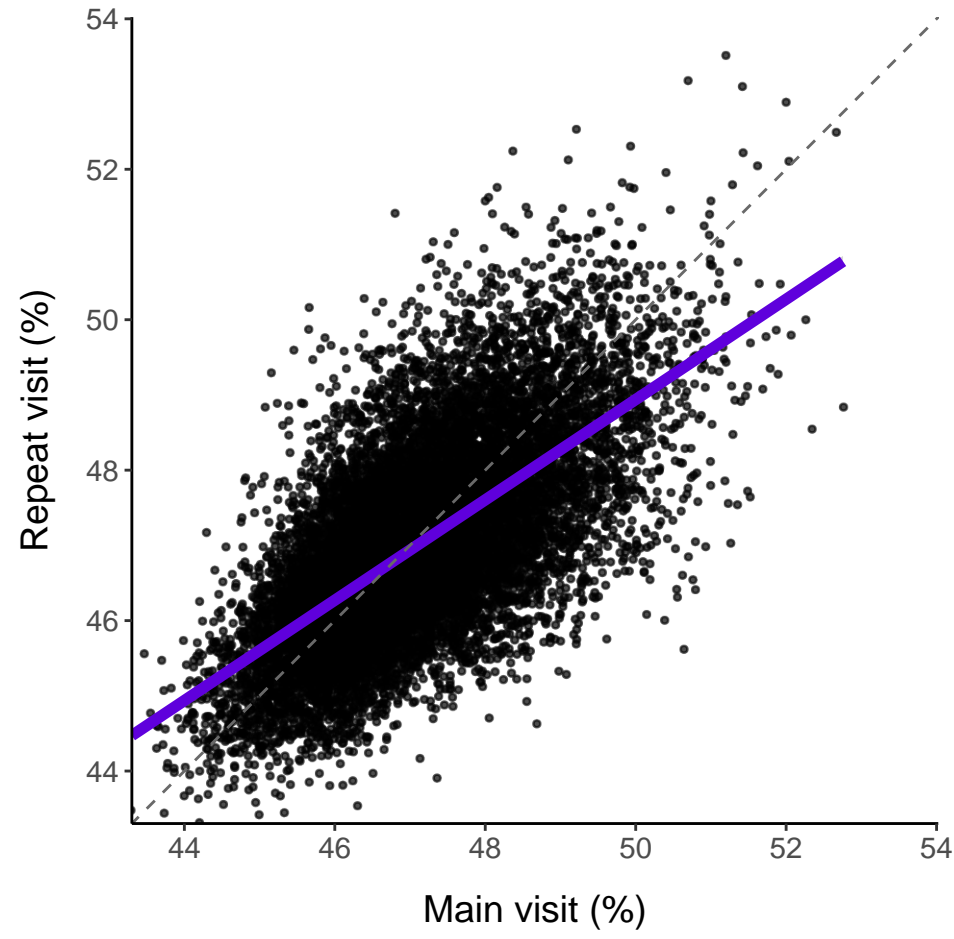
M_HDL_C_pct
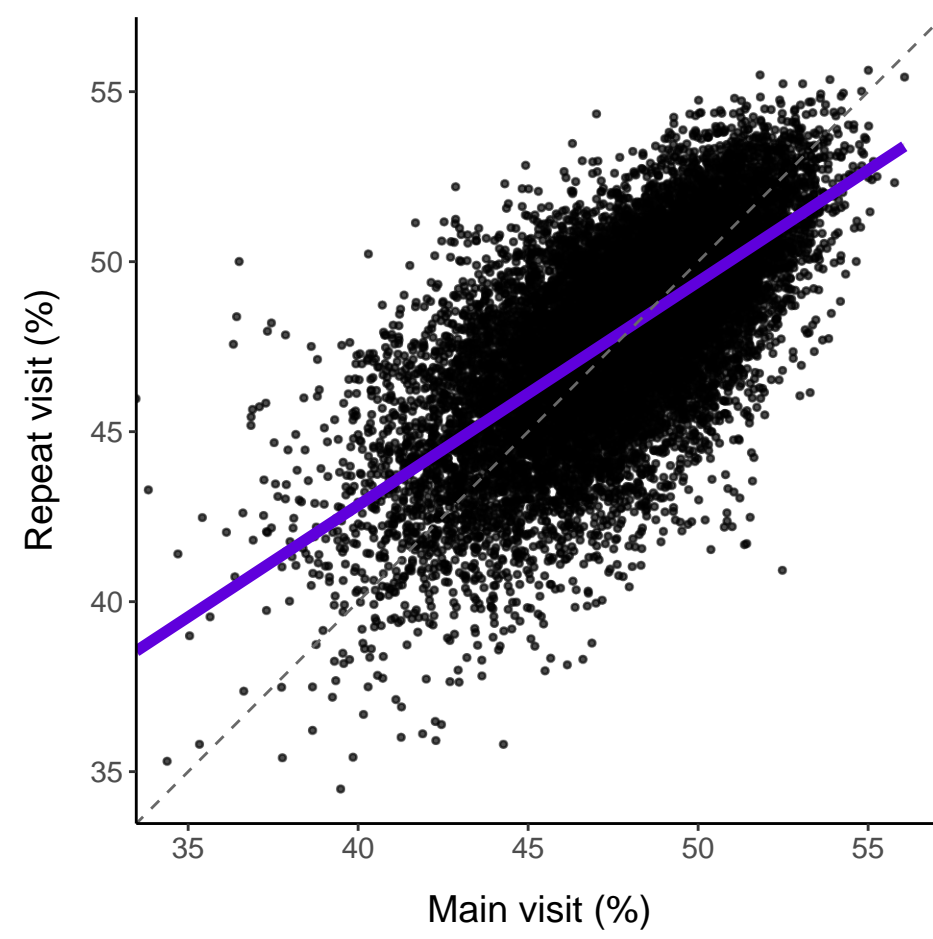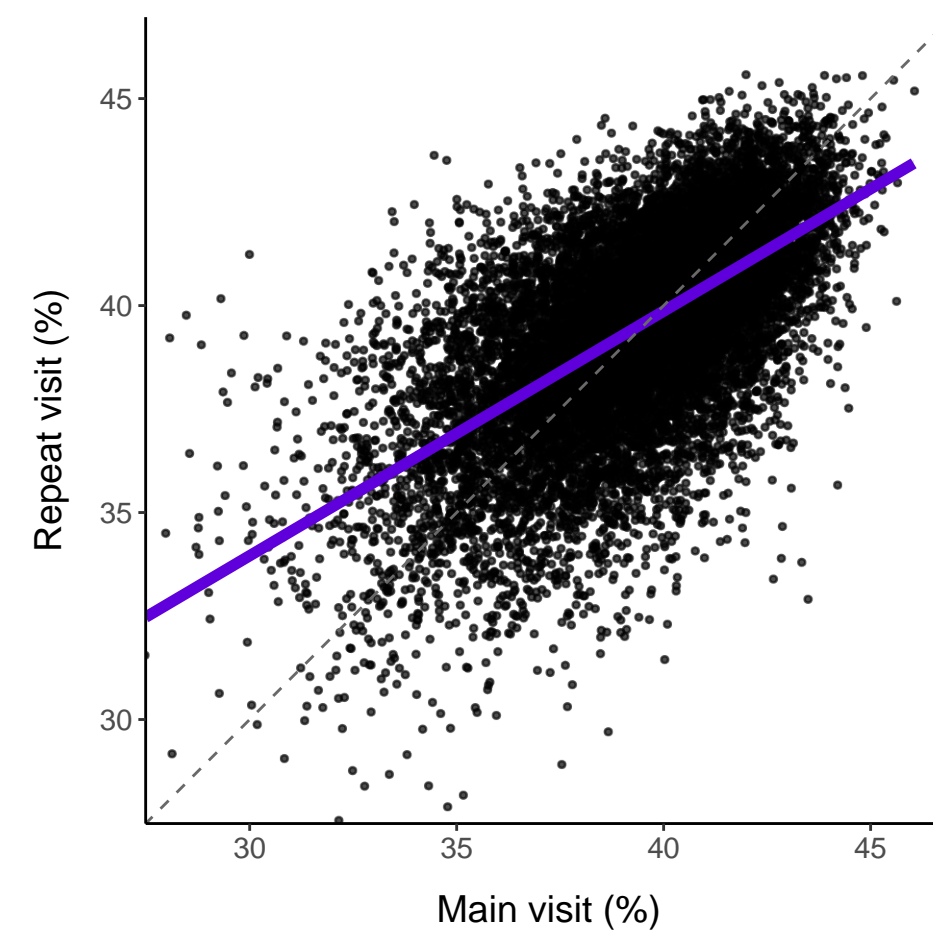
R: 0.68
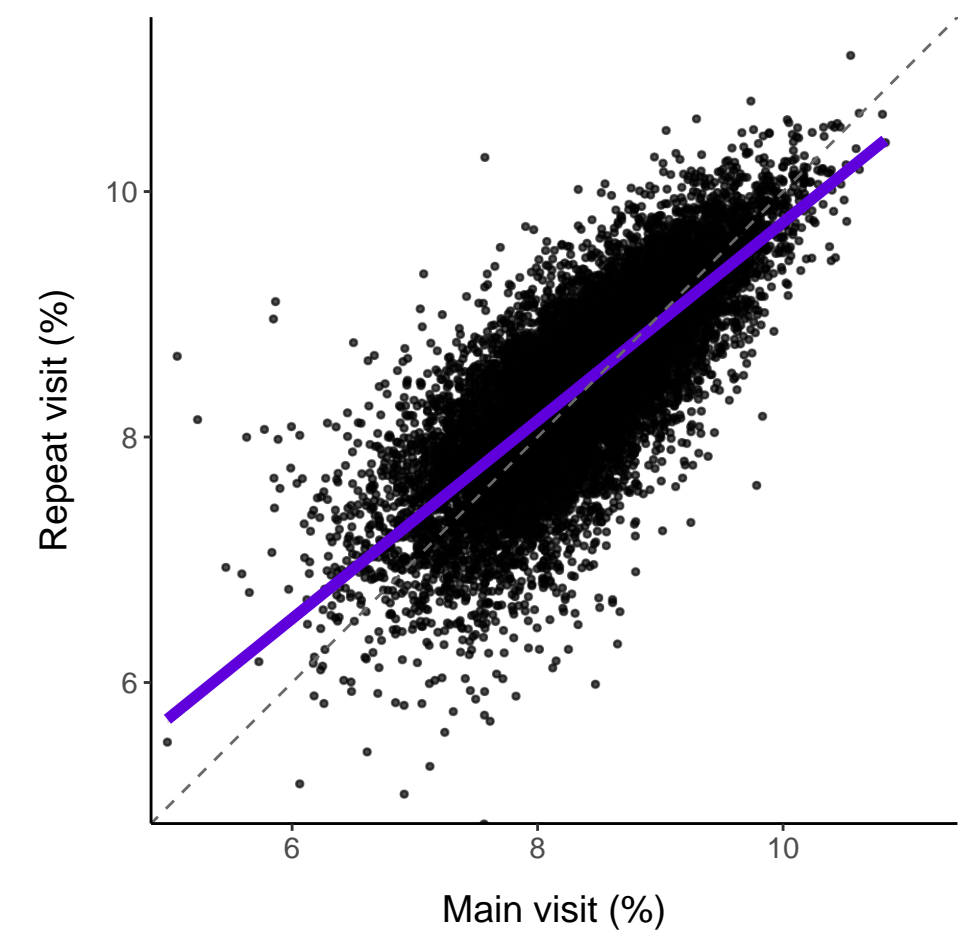y = 16.55 + 0.66x

M_HDL_CE_pct

R: 0.62
y = 16.23 + 0.59x

M_HDL_FC_pct

R: 0.77
y = 1.68 + 0.81x

M_HDL_TG_pct
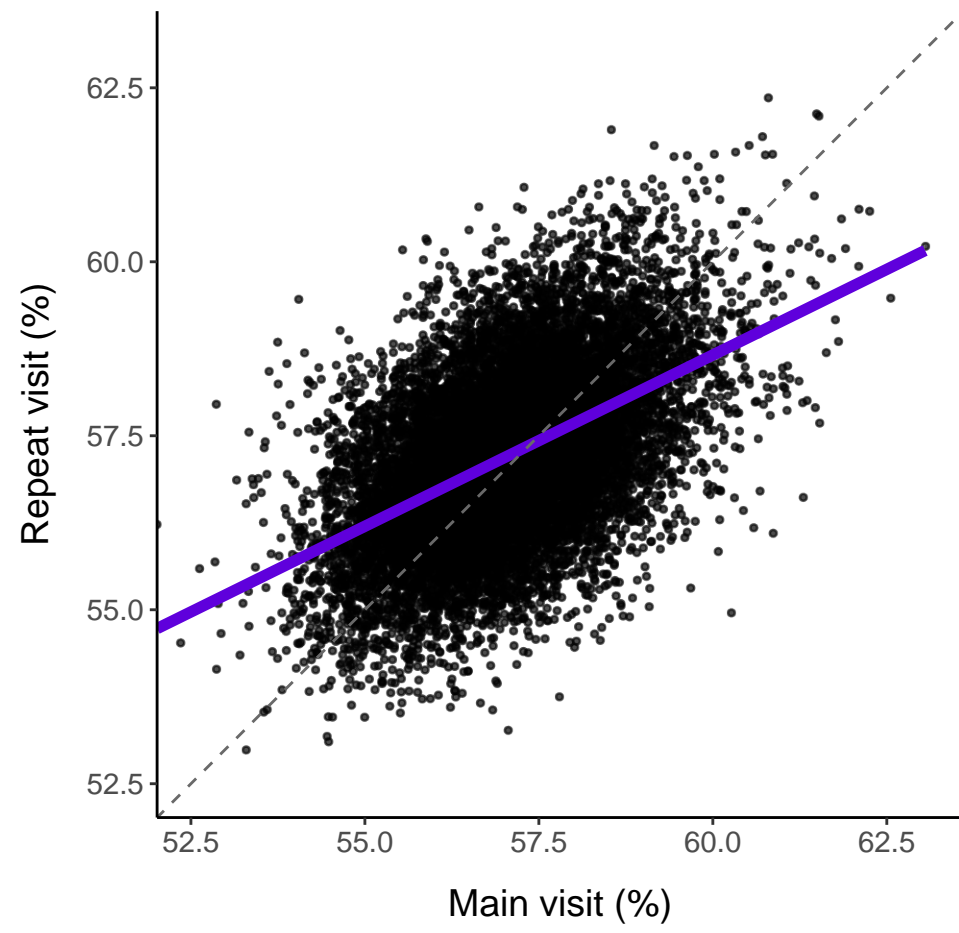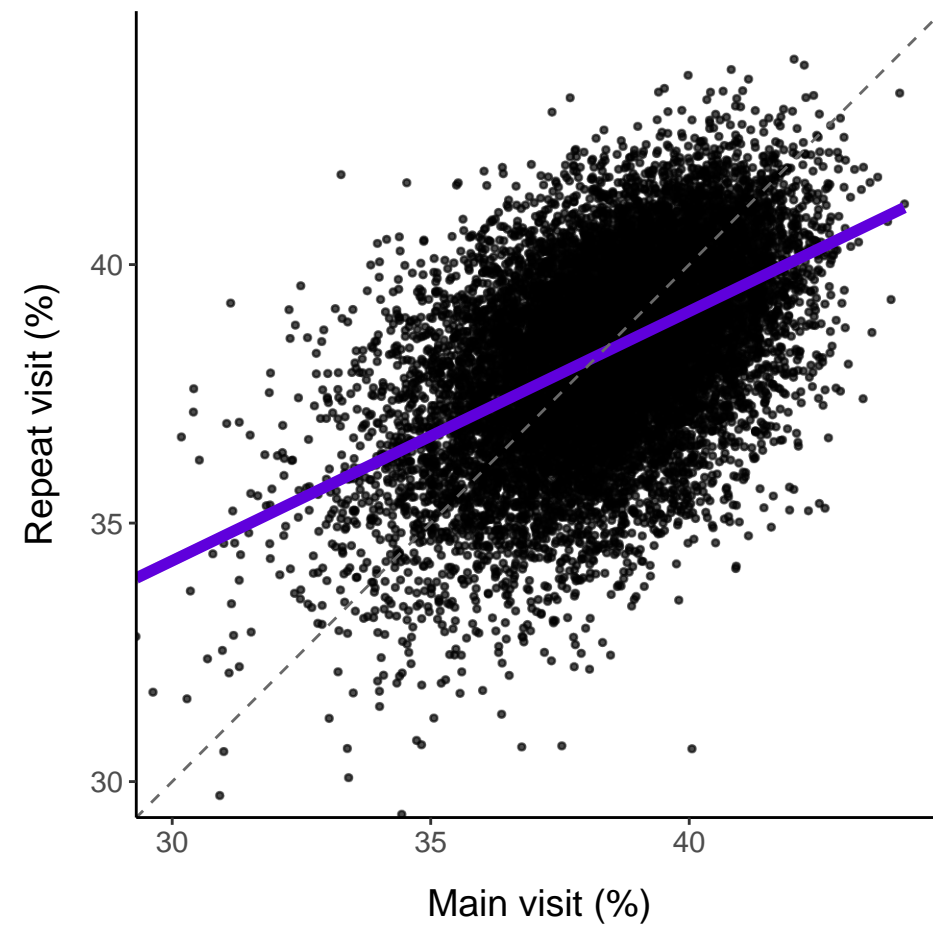
R: 0.66
y = 1.83 + 0.63x
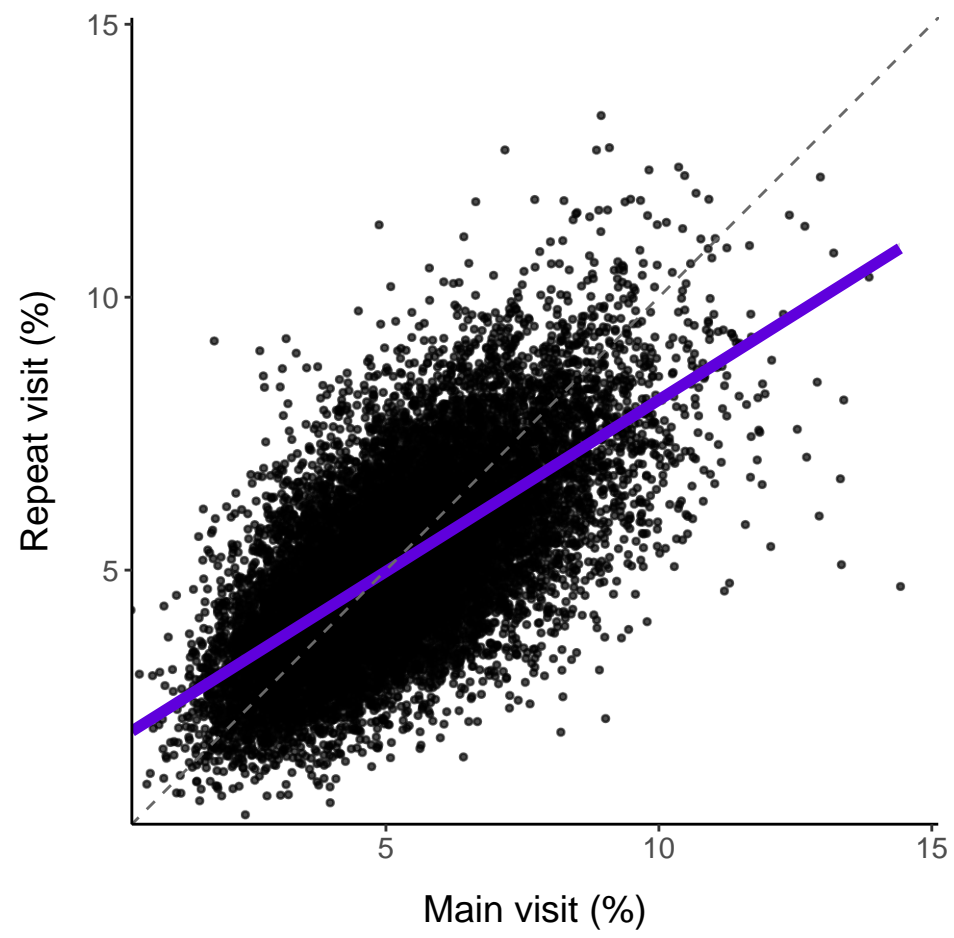
Small HDL ratios
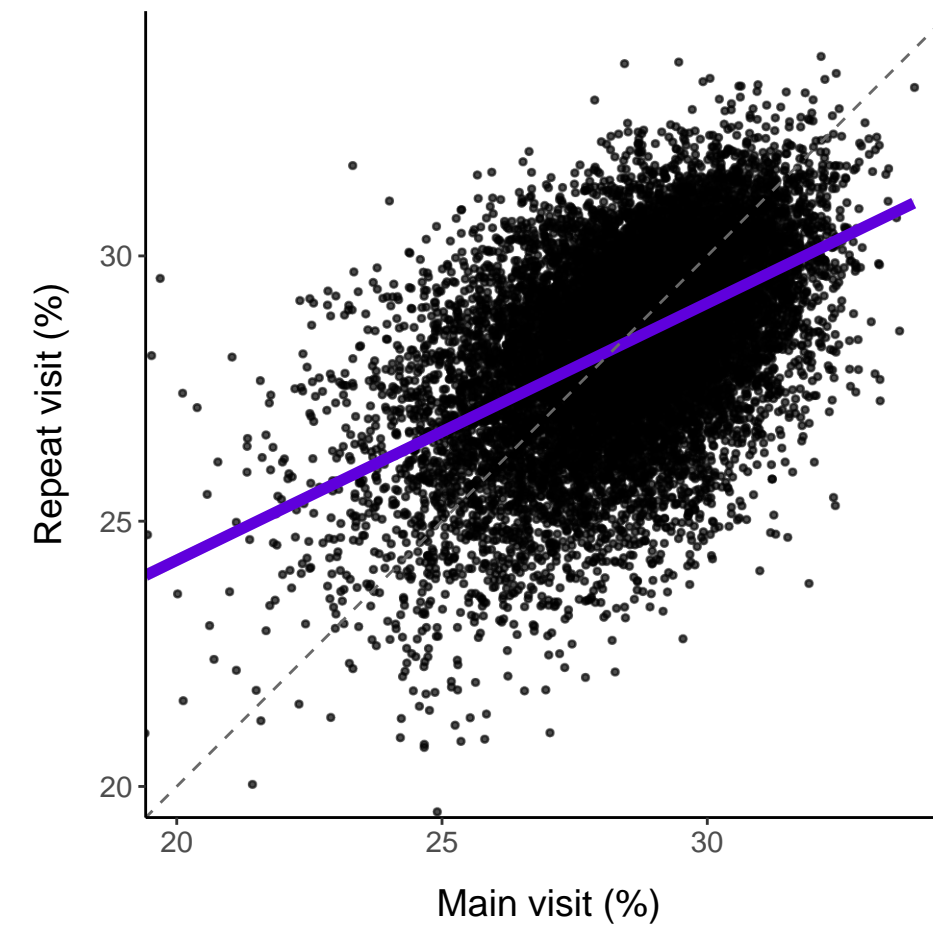
S_HDL_PL_pct	S_HDL_C_pct	S_HDL_CE_pct	S_HDL_FC_pct
R: 0.51	R: 0.5	R: 0.5	R: 0.75
y = 29.12 + 0.49x	y = 19.80 + 0.48x	y = 14.57 + 0.48x	y = 1.92 + 0.81x

S_HDL_TG_pct

R: 0.7
y = 1.41 + 0.67x