

Health, Work and Wellbeing

Defining the priorities: Workplace Health Needs Assessment for Employers

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Carrying out a Health Needs Assessment in the workplace – where do I start: Methods and tools

Introduction

Research shows that good work is good for health and that better employee health is good for business. "Our conclusion from the evidence available ... is that the correlation between engagement, wellbeing and performance is repeated too often for it to be a coincidence" (Macleod & Clarke)¹. Most employers recognise the contribution that protecting and improving the health of their workforce can make to their business, recognising that employees are their most valuable asset. This tool provides employers with a survey tool and examples of guidance on good practice to identify priorities and action aimed at ensuring you get the maximum impact for your employees and your business. Each year around 140 - 150 million working days are lost due to sickness absence; upwards of one fifth of this is longer term and can lead to people falling out of work. Over 300,000 people move from work to claiming incapacity benefits each year.² The Chartered Institute of Personnel Development survey reports that the average cost of absence is £692 per employee per year. Dame Carol Black's 2008 review of the health of Britain's working age population³ estimated that the overall costs of working-age ill-health in the UK exceed £100billion every year.

The review recognised the beneficial impact that work can have on an individual's state of health, and that work is generally good for both physical and mental health. It identified the importance of healthy workplaces designed to protect and promote good health and the central role that such workplaces play in preventing illness and supporting people to stay in work.

In order to improve and protect the health of your employees and maximize the benefit to your organisation, you need to identify where you should target action, and define the priorities – you can do this in a number of ways. Firstly, you can look at your sickness absence levels and trends. Secondly, you can assess the health of your workforce by providing a health check, or by asking them to assess their own health. A health check can provide you with a snapshot of the physical and mental health of your staff. However, using a robust tool to seek your staff's assessment of their own health is a good way of identifying what you should prioritise, and consulting staff on what interventions and action you should

¹ Engaging for Success: enhancing performance through employee engagement. A report to Government by David Macleod and Nita Clarke

² Health at work – an understanding of sickness absence, DWP, Dame Carol Black and David Frost CBE (November 2011)

³ Department for Work and Pensions and Department of Health (2008). Working for a Healthier Tomorrow. Dame Carol Black's review of the health of Britain's working age population. http://www.dwp.gov.uk/docs/hwwb-working-for-a-healthier-tomorrow.pdf

take. These approaches complement each other and provide an opportunity to engage your staff in the process. Evidence suggests that staff engagement increases productivity by 12%.

The employee level Health Needs Assessment survey here provides a systematic way to plan workplace health initiatives, while also giving an opportunity to engage staff and helping to emphasise employer commitment.

The questions recommended here are questions that have been validated and piloted. They are aimed at providing information on your staff's reported behaviour which matches their actual behaviour well, and which can be compared with national data, so you know how your workforce compares. They have also been shown to be a good measure of the topic area they cover, so they are a 'short cut' to getting good evidence on the topics covered. The section at the end provides you with an opportunity to seek staff's views on your 'offer': the action you are proposing to take. The length of a questionnaire is a key factor influencing response rates, with shorter questionnaires tending to obtain better response rates. For this reason, the recommended core questionnaire here uses brief tools and questions. However for employers who wish to look at particular issues in more detail there is a more detailed set of questions available for each issue.⁴ There is also a wide variety of help available including guidelines and tools for those who want to take action (see Appendix 3).

Having used a robust method for assessing priorities for health in your organisation it is recognised that you will want any action to be as cost effective as possible and to have maximum impact. A step-by-step recommended process for undertaking health in the workplace starting with the needs assessment is outlined at Appendix 2. It includes suggested key guidance and examples of best practice, along with exemplars of tools and services to address the priorities you identify effectively. This process uses the needs assessment questionnaire as part of an audit cycle. This means that by using the survey as a benchmark before intervention, you can repeat it later as part of assessing the impact on your employees and your business. If you want to assess the status of your organisation as a whole in relation to workplace wellbeing, see <u>www.wellbeingcharter.org.uk</u>.

⁴ EMPHO HWWB Health Needs Assessment – Methods and Tools http://www.empho.org.uk/viewResource.aspx?id=12479.

What topics are included in the survey and why are they important to employers

General health and mental wellbeing

Why is this important to employers and what can they do about it?

The HNA includes the questions on limiting long term illness and general health used in the UK Census, and also four questions on more general wellbeing developed for use in another large national survey. These will give an overview of your workforce that you can compare with the wider population.

The cost of mental ill health to employers in the UK is estimated at £28.3 billion at 2009 pay levels, and evidence suggests that investment in healthy workplaces and practices along with the health and wellbeing of employees increases productivity and is cost-effective for business and wider society.⁵ It is estimated that 17% of the working population think that their job is extremely or very stressful.⁶

A cost-benefit analysis conducted as part of the *Foresight Project: Mental Capital and Wellbeing Project*⁷ suggests that certain components of organisation-wide approaches to promoting mental wellbeing (such as carrying out an annual stress and wellbeing audit and integrating occupational health professionals with primary care) can produce important economic benefits.

Smoking

Why is this important to employers and what can they do about it?

Smoking is the single most preventable cause of premature death and illness in England. Nationally, one fifth of all UK deaths (112,000 per year) are caused by smoking. One in two regular smokers is killed by tobacco, with half dying before the age of 70 (losing an average of 21 years of life).

Evidence suggests that employers who provide smoking cessation support could benefit from reduced sickness absence and increased productivity, whilst promoting healthy living and non

⁵ NICE (2009). Promoting mental wellbeing at work. Business Case. Implementing NICE Guidance. NICE Public Health Guidance 22. London: NICE

 ⁶ Webster, S and Buckley, P. (2008) *Psychosocial Working Conditions in Britain in 2008*. London: Health and Safety Executive
 ⁷ Foresight (2008). *Mental Capital and Wellbeing Project Final Project Report*. London: The Government Office for Science

smoking within society.⁸ A review of workplace interventions for smoking cessation conducted to inform the development of NICE intervention guidance⁸ identified evidence that a key way for employers to encourage smokers to quit is by offering smoking cessation support. A recent Cochrane review⁹ found strong evidence that interventions for smoking cessation, including individual and group counselling, are equally effective when offered in the workplace. Modelling of the net financial benefits to employers of a range of smoking cessation interventions delivered in the workplace found that all interventions taken into consideration were successful in reducing the number of employees who smoked which in turn led to increased productivity compared to 'no intervention'. Most interventions began to produce a net financial benefit after two years (the cost of the intervention subtracted from the productivity benefits) and some of the cheaper interventions reviewed, such as brief advice, led to a net financial benefit after just one year.

What are the recommended HNA questions?

As a minimum, it is important to know how many employees are current smokers. Other questions are available to explore in more detail, for example, the quantity smoked and intentions to quit.

Alcohol

Why is this important to employers and what can they do about it?

All employers will be familiar with the threat to health and safety that alcohol can present in the workplace. The government's 2004 alcohol harm-reduction strategy¹⁰ concluded that alcohol misuse leads to loss of productivity for the country and loss of employment opportunities for the individual. Alcohol misuse among employees costs up to £6.4bn in lost productivity through increased absenteeism, unemployment and premature death. It can also lead to unemployment and loss of quality of life for individual problem drinkers, who tend to stay in jobs for shorter periods than employees who do not misuse alcohol. A survey carried out in December 2007 for Norwich Union Healthcare found a third of employees admitting to having been to work with a hangover and 15% reported having been drunk at work. The majority (77%) of employers interviewed for this survey identified alcohol as a major threat to employee wellbeing and a factor encouraging sickness absence.¹¹

www.strategy.gov.uk/files/pdf/al04SU.pdf

⁸ NICE (2007). *Workplace health promotion: how to help employees stop smoking*. Public Health Intervention Guidance 5. http://guidance.nice.org.uk/PH5

⁹ Cahill K, Moher M and Lancaster T (2008). *Workplace interventions for smoking cessation*. The Cochrane Database of Systematic Reviews. Issue 4 ¹⁰ Strategy Unit (2004) Alcohol harm reduction strategy for England. London: Prime Minister's Strategy Unit, Cabinet Office.

¹¹ Findings from a report compiled from research carried out by Vanson Bourne and YouGov, commissioned by Norwich Union Healthcare in 2007

It has been argued that the workplace can be an effective setting within which to influence patterns of alcohol consumption and reduce alcohol-related problems. Interventions are likely to be beneficial when placed in the context of a workplace alcohol policy covering drinking at the workplace, workplace discipline, recognition and help for those with alcohol-related problems, and alcohol education. Brief interventions may work well in this setting.¹² 75% of employers report absences due to alcohol and 60% poor performance. Brief advice can reduce weekly drinking by between 13% and 14%¹³. Occupational Health, welfare or personnel staff have been suggested as appropriate people to provide brief advice in the workplace.

What are the recommended HNA questions?

To estimate alcohol consumption it is important to know what has been drunk, as different drinks have different strengths. These questions are designed to address the variation in different drinks, measures and sizes of glass, to get an accurate picture of alcohol consumed. More detailed questions are available on binge drinking, and attitudes and knowledge.

Healthy eating and healthy weight

Why is this important to employers?

There is a clear link between unhealthy diet and poor health and premature death.¹⁴ This not only has increasing social costs in England, but is placing a financial burden of more than £2 billion on the NHS.¹⁵ It is estimated that in 2050 50% of women and 60% of men will be obese. In 2008 it was estimated that 71% of the population were already either overweight or obese. Overweight and obesity increase the risk of a number of health conditions, including cardiovascular disease and type II diabetes, which impact on people's ability to stay in work and the support they may need to do so.

¹² HDA (2004), Choosing Health: Workplace interventions: alcohol and diet <u>http://www.nice.org.uk/nicemedia/documents/CHB19-alcohol_diet-14-</u> 7.pdf ¹³ Whitlock et al 2004

¹⁴ Cabinet Office (2008). Food: An analysis of the issues Revision B. http://www.cabinetoffice.gov.uk/strategy/work_areas/food_policy.aspx

¹⁵ National Audit Office (2006). Tackling Childhood Obesity. London.

Research studies¹⁶ have shown positive effects of healthy-eating interventions in the workplace, with decreases in blood cholesterol of between 2.5 and 10%. A Health Education Authority review of the effectiveness of health-promotion interventions in the workplace identified a number of studies showing positive effects including improvements in dietary habits.¹⁷ Change for Life (C4L) provides suggestions for change including 'swaps' and guidance for employers.¹⁸

What are the recommended HNA questions?

The National Obesity Observatory (2011)¹⁹ identified a shortlist of practical and validated questionnaires for assessing diet based on best available evidence. Each of these had strengths and weaknesses. The two item food frequency questionnaire used here was developed as a brief tool to estimate intake of fruit and vegetables. The questions are short and completed quickly, so they are recommended for inclusion in a brief workplace questionnaire, where their length might prove a barrier to completion not necessarily balanced by the greater spread and depth of alternatives. These can be seen in the longer version of this tool at http://www.empho.org.uk/viewResource.aspx?id=12479

Physical activity

Why is this important to employers and what can they do about it?

Only 6% of men and 4% of women meet the recommended levels of physical activity each week (150 minutes' moderate exercise a week²⁰) and the cost of this physical inactivity in England has been estimated at £8.2 billion a year.²¹ Physically active employees are less likely to suffer from major health problems, less likely to take sickness leave and less likely to have an accident at work. Physical activity in the workplace reduces sickness absence by up to $20\%^{22}$. 'Workplace health promotion: how to encourage employees to be physically active' (NICE Public Health Guidance 13) provides a useful guide to what works, including a business case. In addition, the British Heart Foundation offers support on healthy workplaces, including physical activity.

¹⁶ HDA (2002), Choosing Health: Workplace interventions: alcohol and diet http://www.nice.org.uk/nicemedia/documents/CHB19-alcohol diet-14-7.pdf ¹⁷ For more information see HDA (2002) Cancer Prevention. A resource to support local action in delivering The NHS Cancer Plan.

¹⁸ Department of Health: http://www.dh.gov.uk/en/Publichealth/Change4Life/index.htm

¹⁹ NOO (2011) Measuring diet and physical activity in weight management interventions. Oxford. National Obesity Observatory

²⁰ HSE 2008

²¹ Guidelines on physical activity for adults 18-65 CMO (July 2011) London Department of Health

²² Department for Work and Pensions and Department of Health (2008). Working for a Healthier Tomorrow. Dame Carol Black's review of the health of Britain's working age population. http://www.dwp.gov.uk/docs/hwwb-working-for-a-healthier-tomorrow.pdf

What are the recommended HNA questions?

The question here is a simple one which asks about frequency and quantity of activity.

Work and Health

These questions are included to give you feedback specifically on how your employees perceive work affects their health. They have been used in research and national surveys so will let you compare your organisation against the national picture.

The section at the end is designed to enable you to seek staff's views on your 'offer', so can be customised depending on what you are able or willing to provide. It also asks those completing it to prioritise what is most important. It is worth comparing the responses here to what the rest of the survey tells you.

The step-by-step diagram at Appendix 2 takes you through the stages of developing a healthy workplace, and gives you some examples of good practice in each of the key areas. If you would like further help/information please see Appendix 3.





Workplace Health Needs Assessment: Carrying out the survey

To ensure you get the best possible response your planning and cover note should include:

- Who is collecting the information include relevant logos etc
- Why the information is being collected
- What will be done with the information (i.e. how will it help to develop/prioritise workplace health initiatives). How will the results be publicised (e.g. website/staff newsletter?)
- What are the timescales for completion of the questionnaire and when will the results and outcomes be circulated?
- Assurance of confidentiality no names or other identifying information collected
- Participation is voluntary choosing not to complete a questionnaire will not affect access to services/resources
- Details of any incentive or reward (e.g. a prize draw usually increases return/response rate, but take care not to compromise confidentiality) for completed questionnaires.
- Instructions for completion (i.e. read questions carefully and tick relevant boxes)
- Details of how and to whom to return the questionnaire if you are doing it in hard copy or by email
- If you want to add additional questions to get more information on a particular issue, we strongly recommend you consider using the validated questions in the more detailed version at http://www.empho.org.uk/viewResource.aspx?id=12479

Health Needs Assessment Questionnaire

About you

	What is	your ag Under 2 25-34	e? !5			35-44 15-54				55 65	5-64 5 and	ove	r						
	What is	your se	x?		Male			Fe	emal	e									
	What is workfor	your oc r ce spre d	cupatio ad)	nal grou	up? (in tł	nis sec	tion us	se th	e rai	nge (of rol	les/g	roup	os wi	hich	refle	ect y	our	
	□ Ni □ M □ Th	ursing/n Iedical nerapeu	nidwifer tic staff	ТУ		Adm Mar Amt	nin/clei nageme oulance	rical ent				So A O	cient ncilla ther	ific/t ary/n	ech nain	nical tena	nce		
	Gene	ral he	alth																
	How is y Very goo	your hea od	Ith in go Good	eneral?	Fair		Bac	ł			Very	bad							
	Are you expecte □γ	r day-to d to last 'es limite	-day act ;, at leas ed a lot	ivities l t 12 mo	imited b onths? (I □Yes,	ecaus nclude limite	e of a h e probl ed a litt	nealt ems :le	h pro relat	oblei ted t	m or to age	disal eing) o	bility	whi	ch h	as la	sted	l, or is	
Overal scale c compl	ll, how satis of 0-10, wh etely satisf	sfied are y ere 0 is no ïed)	ou with l ot at all sa	ife nowa itisfied ai	days? (on a nd 10 is	N a sa	lot at all tisfied	0	1	2	3	4	5	6	7	8	9	10	Completely satisfied
Overal 0-10, v happy)	ll, how hap where 0 is r)	py did you not at all h	u feel yest happy and	terday? (10 is col	on a scale o mpletely	of I	Not at all happy	0	1	2	3	4	5	6	7	8	9	10	Completely Happy
Overa of 0-1 anxiou	ll, how anx 0, where 0 us)	ious did y is not at a	ou feel ye all anxiou:	esterday? and 10	? (on a scal is complete	e ely a	Not at all anxious	0	1	2	3	4	5	6	7	8	9	10	Completely anxious
Overal you life at all w	ll, to what e e are worth vorthwhile	extent do nwhile (on and 10 is	you feel t a scale 0 complete	he thing: -10 wher ly worth	s you do in e 0 is not while)	No wor	t at all thwhile	0	1	2	3	4	5	6	7	8	9	10	Completely worthwhile
	Smok	ing																	
	Have yo	ou <u>ever</u> s	moked	a cigare	ette, a cię	gar, or	a pipe	?	□ү	es		Ľ		D					

If yes, do you smoke at all nowadays?

□Yes □No

Healthy eating

A portion of vegetables approximately equals one handful or 3 serving spoons of vegetables or salad vegetables. A portion of fruit equals approximately a tablespoon of dried fruit, 1 medium sized piece of fruit (e.g. apples), 2 small pieces of fruit (e.g. kiwi fruit, apricot) or a 125ml glass of pure fruit juice.

How many pieces of fruit, of any sort, do you eat on a typical day?

How many portions of vegetables, excluding potatoes, do you eat on a typical day?

Alcohol

Thinking about all kinds of drinks, how often have you had an alcoholic drink of any kind during the last 12 months? PLEASE CHOOSE ONE

- Almost every day
- 5 or 6 days a week
- 3 or 4 days a week
- Once or twice a week
- Once or twice a month
- Once every couple of months
- Once or twice a year
- Not at all in the past 12 months

Have you had an alcoholic drink in the seven days ending yesterday?

If yes, how many of each of these types of drink have you had during the last seven days? Please include drinks that are drunk in or out of the home.

	No. of drinks
	in last 7 days
Pints or bottles of normal strength beer, bitter, lager or cider	
Pints or bottles of extra strong beer, bitter, lager or cider	
Single measures of spirits or liqueur such as whisky, gin, vodka, etc.	
Standard glasses of wine (175ml)	
Single glasses of martini, sherry or port (not wine)	
Bottles of Alcopops/designer drinks or alcoholic lemonade	
such as Red, Reef, Hooch, Bacardi Breezer, Smirnoff Ice, etc.	
Other alcoholic drinks	
Low/non alcohol drinks	

Physical activity

In the past week, on <u>how many days</u> have you done a total of 30 minutes or more of moderate or intensive physical activity? This includes any activities done to the point where you were slightly sweaty, breathing faster than usual and your heart was beating faster than usual, and which can be done in sessions of 10 minutes or more.

				— –		— –
$\Box 0$	ШZ	山3	□4	山5	பெ	ப/

Work and health

Taking everything into account, do you think paid work is generally good or bad for physical health	Very good	Good	Bad	Very bad
Taking everything into account, do you think paid work is generally good or bad for mental health				

In general, how satisfied are you with: (please tick one box in each row)

	Very dissatisfied	Quite dissatisfied	Neither satisfied nor dissatisfied	Quite satisfied	Very satisfied
a. your job					
b. the social environment at work					
c. the physical environment at work					

Within the last 12 months have you suffered from any illness, disability or other physical or mental problem that was caused or made worse by your job or by work you have done in the past?

□ Yes □No

In general, how do you find your job?

not at all stressful

- inidly stressful
- moderately stressful
- very stressful
- extremely stressful

How interested would you be in taking part in each of the following programmes if they were offered to you <u>at work</u>? (*Here you insert details of your 'offer' to your workforce e.g. a list of the options you are considering for intervention to help improve their health*)

Examples:

	Extremely interested	Fairly interested	Not interested	Undecided/ not
a) Health checks/know your numbers				
b) Healthy eating/weight management				
c) Smoking cessation				
d) Physical activity				
e) Aches and pains				
f) Alcohol/drugs				
g) Stress & mental well-being (emotional resilience)				
h) Other: <i>(Please state.)</i>				

Which three of these programmes would you be most interested in? (please write the relevant letters)

1st 2nd 3rd

If there was one thing in your workplace that would improve your health, what would it be?

Appendix 1

Employee Health Needs Assessment: How to analyse the survey results – what do the answers tell you?

The aim of this section is to provide guidance on how to analyse the information obtained from the Health Work and Wellbeing Health Needs Assessment questionnaire, so that you can summarise and interpret what the survey results tell you. This enables you to turn the information you have collected into action.

Once the survey data have been collected they should be entered to a database - in most cases simple entry to a spreadsheet application such as Excel will be sufficient. Data entry methods are not covered here, but many guides are available online.²³ If more complex analysis is required it is recommended that a specialised analytical tool such as SPSS should be used, if available.

Once the data have been entered to a database, a plan should be drawn up to outline what analysis is required. Relevant questions to inform the plan include:

- Who will read or use the data?
- What types of analysis will they want what will be of most interest?
- Is simple (frequency) analysis sufficient, or is more complex analysis/statistical testing needed? (frequency = the number of times something occurs e.g. six people between the ages of 20-25)

The data can be used to carry out exploratory analysis. for example, examine whether there is any difference in employees' health and lifestyle by age, sex or occupational group. It is also useful to compare the survey findings with results that have been obtained using the same questions in other settings. Most of the questions in the core survey tool were chosen because they have been widely used and so extensive comparative data are available, which will enable you to see how your workforce compares for example to the national picture.

The first section focuses on how to obtain basic summary analysis of each of the questions included in the core questions. In many cases this will consist of a simple frequency table. [total of xxxx in a group or category] Frequency tables show the possible answers to a question, and the total number and percentage of people who selected each answer. Frequency tables are useful to gain an overview of the data. In other cases, where the data are continuous, summary measures such as average or median will be used. For some variables the data need to be transformed before summary information can be obtained (for example, a calculation has to be made to obtain overall alcohol consumption information from the survey responses). These techniques will be described. Where available, sources of comparative data will be given. In addition, data obtained from a pilot study with an NHS organisation within the East Midlands will be used for illustrative purposes. The final section briefly describes the process for sub group analysis using cross comparison.

²³ A useful guide to creating a survey database in Excel is at <u>http://learningstore.uwex.edu/assets/pdfs/G3658-14.pdf</u>

1. Basic summary analysis

About you

(What	is your age? Under 25 25-34		35-44 45-54		55-64 65 and o	ver	
	What	is your sex?	Male	lote: categorie	Female	ment depend	ling on setting)	
		Nursing/midwifery Medical Therapeutic staff] Admin/] Manag] Ambula	/clerical ement ance		Scientific/technical Ancillary/maintenance Other	

Analysing the data

Each of the three questions included in this section can be analysed using simple frequency tables, without any transformation of the data. As well as giving information about the profile of survey respondents, these data have two further important uses:

- It is useful to compare the profile of survey respondents with the profile of individuals within the survey population (usually workforce in this context) as a whole. This allows assessment of whether the survey appears to be representative of the workforce (in terms of age, sex and occupational group) and therefore whether the results are likely to be generalisable. See example analysis below.
- These variables can be cross tabulated against other survey questions to find out whether results vary by sub group (for example, does smoking prevalence vary by occupational group). This may be especially useful in helping to target interventions in the workplace. More details of such analysis are included at the end of this paper.

Example analysis

A simple frequency count of the sex variable within the pilot HNA survey showed that respondents were predominantly female (79%). This is broadly in line with this organisation's workforce as a whole where 77% of staff are female. The survey therefore appears to be broadly representative of the workforce in terms of sex. Similar analysis was also carried out for age and occupational group.

Sex	Pilot s	Workforce	
	Number Percent		percent
Male	34	21%	23%
Female	129	79%	77%
Total	163	100%	100%

General health

(How is your he	alth in general?			
	Very good	Good	Fair	Bad	Very bad
	Are your day-to or is expected t Yes, limi	o-day activities li to last, at least 1 ted a lot	mited because o 2 months? (Inclu Yes, limited	of a health probl ude problems re a little	em or disability which has lasted, lated to ageing) □No
					/

Analysing the data

Both of these general health questions can be analysed using simple frequency tables, without any transformation of the data. Both questions have been used extensively in national surveys including, most notably, the Census and the General Lifestyle Survey. HNA survey results can be compared against data from these sources to assess whether survey respondents have better or worse general health when compared to the England population as a whole.

Example analysis

When asked to rate their health in general, pilot survey respondents were much less likely to report being in 'very good' health compared to the general population as a whole. However, the proportion reporting a limiting long term illness was similar across both groups.

Health in general	Pilot s	urvey	General population
is	Number Percent		comparative data
Very good	33	17%	40%
Good	118	60%	39%
Fair	42	21%	15%
Bad	4	2%	5%
Very bad	0	0%	1%
Total	197	100%	100%

Source of comparative data: General Lifestyle Survey 2009 (www.ons.gov.uk)

Limiting long term	Pilot s	urvey	General population
illness	Number	Percent	comparative data
Yes limited a lot	3	2%	18%
Yes limited a little	38	20%	1076
Not limited	148	78%	82%
Total	189	100%	100%

Source of comparative data: General Lifestyle Survey 2009 (www.ons.gov.uk)

Overall, how satisfied are you with life nowadays? (on a scale of 0-10, where 0 is not at all satisfied and 10 is completely satisfied)

Overall, how happy did you feel yesterday? (on a scale of 0-10, where 0 is not at all happy and 10 is completely happy)

Overall, how anxious did you feel yesterday? (on a scale of 0-10, where 0 is not at all anxious and 10 is completely anxious)

Overall, to what extent do you feel the things you do in you life are worthwhile (on a scale 0-10 where 0 is not at all worthwhile and 10 is completely worthwhile)

Analysing the data

The above four questions all require a response on a scale from 0 to 10. A simple frequency table of the responses for each question could be produced, but summary measures are more useful, i.e.

- the **average** calculated by summing the total of the scores and then dividing by the number of respondents.
- the **median** calculated by arranging all scores from lowest to highest and then selecting the middle value. It is generally a better summary measure than the average when data are skewed as they are in this case as most responses are concentrated at one end of the scale.
- the range i.e. lowest to highest scores.

These questions were developed by the Office for National Statistics (ONS) as a measure of subjective wellbeing for inclusion in the Integrated Household Survey (IHS)²⁴ from April 2011. The IHS is the largest regular government household survey currently carried out in Britain and the sample size will eventually be approximately 370,000 individuals annually. Data are currently being collected nationally and will be available for comparative purposes by early 2012.

²⁴ <u>http://www.ons.gov.uk/ons/about-ons/surveys/a-z-of-surveys/integrated-household-survey/index.html</u>

Example analysis

Analysis of the pilot survey results is shown in the table below. It should be noted that scores for the third question (on anxiety) reverse those for the other three questions i.e. for this question higher scores indicate a negative response (higher levels of anxiety) whereas for the others higher scores indicate a more positive response.

For all questions responses were skewed towards positive scores, although all showed a wide range. For example the median score for satisfaction with life was 7.0, but scores ranged from 2 to 10.

	Pilot survey				
	Average	Median	Range		
Satisfaction with life	7.0	7.0	2 – 10		
0=not at all, 10=completely					
Happiness yesterday	6.8	7.0	0-10		
0=not at all, 10=completely					
Anxious yesterday	3.7	3.0	0-10		
0=not at all, 10=completely					
Things do in life are worthwhile	7.4	8.0	2 - 10		
0=not at all, 10=completely					

Healthy eating

A portion of vegetables approximately equals one handful or 3 serving spoons of vegetables or salad vegetables. A portion of fruit equals approximately a tablespoon of dried fruit, 1 medium sized piece of fruit (e.g. apples), 2 small pieces of fruit (e.g. kiwi fruit, apricot) or a 125ml glass of pure fruit juice.

How many pieces of fruit, of any sort, do you eat on a typical day? _____

How many portions of vegetables, excluding potatoes, do you eat on a typical day? ____

Analysing the data

In order to analyse the survey data on fruit and vegetable consumption, it is necessary to create two additional variables:

- 1. Add together the number of pieces of fruit and number of portions of vegetables to give the total number of portions of fruit and vegetables consumed.
- 2. Create a categorical variable where the total number of portions (as calculated in stage one) is recoded to either '5 or more' or 'less than five' a day.

These questions were used in the National Diet and Nutrition Survey and HNA survey results can be compared to data from this source.

Example analysis

Pilot survey respondents were more likely to consume 5 or more portions of fruit and vegetables when compared to the general population (41% and 30% respectively).

Fruit & veg	Pilot s	urvey	General population
consumption	Number	Percent	comparative data
5+ a day	78	41%	30%
<5 a day	114	59%	70%
Total	192	100%	100%

Source of comparative data: National Diet and Nutrition Survey, 2009/10. Available at

http://www.dh.gov.uk/en/Publications and statistics/PublishedSurvey/ListOfSurveySince 1990/SurveyI is the the statistics of the test of test of

Smoking

Have you <u>ever</u> smoked a cigarette, a cigar, or a pipe?	□Yes	□ No
If yes, do you smoke at all nowadays?	□Yes	□ No

Analysing the data

It is necessary to create one additional variable to allow analysis of smoking status. The variable should contain three categories defined as follows:

- 1. Current smoker, where ever smoked = yes AND nowadays smoke = yes.
- 2. Ex smoker, where ever smoked = yes AND nowadays smoke = no.
- 3. Never smoker, where ever smoker = no/both [?]

Note that ever smoker = no plus nowadays smoke = yes is invalid and any such responses should be marked as missing data.

These are the same definitions as used in the IHS survey, and comparative data are available from this source.

Example analysis

The prevalence of current smoking was lower among the pilot survey cohort than among the general population. However, 16% (approximately one in six) of pilot survey respondents currently smoke and therefore might benefit from advice and/or intervention.

Ever smoked	Pilot	survey	General population
	Number	Percent	comparative data
Current smoker	31	16%	21%
Ex smoker	58	30%	33%
Never smoker	105	54%	46%
Total	194	100%	100%

Source of comparative data: Integrated Household Survey 2010/11. Available at http://www.ons.gov.uk/ons/about-ons/surveys/a-z-of-surveys/integrated-household-survey/index.html

Physical activity

In the	past we	ek, on <u>h</u>	<u>ow man</u>	<u>y days</u> h	iave you	i done a	total of	30 minutes or more of moderate	
or inte	ensive pł	nysical a	ctivity?	This inc	ludes ar	iy activit	ties done	e to the point where you were	
slightly	y sweaty	ı, breath	iing fast	er than	usual an	d your f	neart wa	is beating faster than usual.	
	□0	□1	□2	□3	□4	□5	□6	□7	

Analysing the data

UK guidance published by the Department of Health in July 2011 states that adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more.²⁵ Previously, National Indicator 8 recommended participation in sports and recreation of at least moderate intensity activity three times a week, for at least 30 minutes.²⁶

The above question is an amended version of that used in the Outdoor Health Questionnaire. The Outdoor Health Questionnaire asked only about outdoor sport and recreational activities whereas the HNA survey question includes all types of moderate or intensive physical activity. For this reason, HNA survey results cannot be directly compared with Outdoor Health Survey results.

Data can be analysed using a simple frequency table or, for clarity, summary categories can be created to group the data e.g. 0-2 days, 3-5 days, 6-7 days.

Example analysis

Analysis showed that almost half (46%) of pilot survey respondents reported doing a total of 30 minutes or more of moderate or intensive physical activity on less than three days a week.

No. days 30 mins or more moderate	Pilot survey		
or intensive physical activity	Number	Percent	
0 – 2 days	89	46%	
3 – 5 days	81	42%	
6 – 7 days	22	12%	
Total	192	100%	

²⁵ UK Physical Activity Guidelines. Available at:

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH 127931

²⁶ http://www.sportengland.org/research/active_people_survey/national_indicator_8.aspx

Alcohol

Thinking abo	out all kinds of drinks, how often have you had an a st 12 months? PLEASE CHOOSE ONE	lcoholic drink of a	ny kind
	Almost every day		
	5 or 6 days a week		
	3 or 4 days a week		
	Once or twice a week		
	Once or twice a month		
	Once every couple of months		
	Once or twice a year		
	Not at all in the past 12 months		
Have you ha	d an alcoholic drink in the seven days ending yester	rday? 🗌 Yes	🗌 No
If yes, how m	nany of each of these types of drink have you had d	luring the last sev	en days?
lf yes, how m Please includ	nany of each of these types of drink have you had d de drinks that are drunk in or out of the home.	luring the last sev	en days?
If yes, how m Please incluc	nany of each of these types of drink have you had d de drinks that are drunk in or out of the home.	luring the last sev No. of drinks in last 7 days	en days?
If yes, how n Please includ Pints or bott	hany of each of these types of drink have you had d de drinks that are drunk in or out of the home. les of normal strength beer, bitter, lager or cider	luring the last sev No. of drinks in last 7 days	en days?
If yes, how n Please includ Pints or bott Pints or bott	hany of each of these types of drink have you had d de drinks that are drunk in or out of the home. les of normal strength beer, bitter, lager or cider les of extra strong beer, bitter, lager or cider	luring the last sev No. of drinks in last 7 days	en days?
If yes, how m Please includ Pints or bott Pints or bott Single measu vodka, etc.	hany of each of these types of drink have you had d de drinks that are drunk in or out of the home. les of normal strength beer, bitter, lager or cider les of extra strong beer, bitter, lager or cider ures of spirits or liqueur such as whisky, gin,	luring the last sev No. of drinks in last 7 days	en days?
If yes, how m Please includ Pints or bott Pints or bott Single measu vodka, etc. Standard gla	hany of each of these types of drink have you had d de drinks that are drunk in or out of the home. les of normal strength beer, bitter, lager or cider les of extra strong beer, bitter, lager or cider ures of spirits or liqueur such as whisky, gin, sses of wine (175ml)	luring the last sev No. of drinks in last 7 days	en days?
If yes, how m Please includ Pints or bott Pints or bott Single measu vodka, etc. Standard gla Single glasse	hany of each of these types of drink have you had d de drinks that are drunk in or out of the home. les of normal strength beer, bitter, lager or cider les of extra strong beer, bitter, lager or cider ures of spirits or liqueur such as whisky, gin, sses of wine (175ml) s of martini, sherry or port (not wine)	luring the last sev No. of drinks in last 7 days	en days?
If yes, how m Please includ Pints or bott Pints or bott Single measu vodka, etc. Standard gla Single glasse Bottles of Ald	hany of each of these types of drink have you had d de drinks that are drunk in or out of the home. les of normal strength beer, bitter, lager or cider les of extra strong beer, bitter, lager or cider ures of spirits or liqueur such as whisky, gin, sses of wine (175ml) s of martini, sherry or port (not wine) copops/designer drinks or alcoholic lemonade	luring the last sev No. of drinks in last 7 days	en days?

Analysing the data

The alcohol questions are those used in national surveys such as the General Lifestyle Survey and the Health Survey for England. The first two questions can be analysed using simple frequency tables. However, it is necessary to convert the consumption grid responses to numbers of alcohol units consumed. This is done by multiplying the number of drinks consumed by 'conversion factors' to give number of units.

Estimates of alcohol consumption in surveys are derived from assumptions about the average alcohol content of different types of drink, combined with information from the respondent about the volume drunk. Because alcoholic drinks vary widely in their alcohol content, what people drink has to be converted into equivalent standard units. When drinking surveys were first carried out in the 1970s, the assumption that one unit was found in a half pint of beer, a glass of table wine, a small glass of fortified wine, and a single measure of spirits was reasonable. Since then, however, and particularly in recent years, new types of alcoholic drink have been introduced (such as alcopops), the alcohol content of some drinks has

increased, and alcoholic drinks are now sold in more variable quantities than used to be the case. Methods have therefore been published for converting the information provided by survey respondents into standard alcohol units. These estimate average alcoholic strength for different types of drink, and take account of volumes drunk. A recent update to the conversion methodology

reconsidered the assumptions made in obtaining estimates of alcohol consumption by taking into account increases in the size of glass in which wine is served on licensed premises; the increased average alcoholic strength of wine; and revised estimates of the average alcoholic strengths of beers, lagers and ciders.²⁷

Pints or bottles of normal strength beer, bitter, lager or cider	2.0
Pints or bottles of extra strong beer, bitter, lager or cider	4.0
Single measures of spirits or liqueur such as whisky, gin, vodka, etc.	1.0
Standard glasses of wine (175ml)	2.0
Single glasses of martini, sherry or port (not wine)	1.0
Bottles of Alcopops/designer drinks or alcoholic lemonade	1.5

Current conversion factors are:

In order to obtain number of units consumed for each survey respondent, the number of drinks given in each category should be multiplied by the conversion factor given above. An additional variable should then be created by adding together all the units consumed to give an overall total.

This overall total field could be analysed using summary measures such as mean, median and range. However, more usually, the number of units consumed is grouped into categories representing different levels of alcohol consumption. These categories vary for men and women (see tables below). Until recently it was advised that men should drink no more than 21 units per week, and women no more than 14. More recent guidance has focused on advised daily (rather than weekly) consumption levels. It is recommended that an additional variable should be added to the survey database, grouping the continuous number of units consumed into categories, filtered by whether the respondent was male or female.

²⁷ Office for National Statistics. National Statistics Methodological Series No. 37. Estimating alcohol consumption from survey data: updated method of converting volumes to units. December 2007. Available at http://www.ons.gov.uk/ons/guide-method/method-quality/specific/gss-methodology-series/index.html

Example analysis

The tables below show number of units of alcohol consumed, separately for males and females. General population comparative data have been obtained from the General Lifestyle Survey 2009. For both males and females, the proportion of pilot survey respondent drinking more than the recommended number of units was significantly lower than among the general population.

Alcohol units consumed	Pilot survey		General population
in last 7 days - Males	Number	Percent	comparative data
Non drinker	12	38%	12%
1-10 units	9	28%	41%
11-21 units	7	22%	20%
22-35 units	2	6%	13%
36+ units	2	6%	13%
Total	32	100%	100%

Source of comparative data: General Lifestyle Survey 2009 (www.ons.gov.uk)

Alcohol units consumed	Pilot survey		General population
in last 7 days - Females	Number	Percent	comparative data
Non drinker	48	38%	19%
1-7 units	45	36%	49%
8-14 units	22	18%	15%
15-25 units	9	7%	10%
26+ units	1	1%	8%
Total	125	100%	100%

Source of comparative data: General Lifestyle Survey 2009 (www.ons.gov.uk)

Work and health

Taking everything into account, do you think paid work is generally good or bad for physical health

Taking everything into account, do you think paid work is generally good or bad for mental health

Analysing the data

Both of the above questions were answered on a four-point scale (very good/good/bad/very bad) and can be analysed using simple frequency tables. The questions were used in the 'Attitudes to health and work among the working age population' survey and these HNA survey results can be compared against results from that source.

Example analysis

The majority of pilot survey respondents reported that that they thought paid work was generally either good or very good for physical and mental health. Findings were broadly similar to the national survey results.

Taking everything into account, do you	Pilot survey		General population
think paid work is generally good or	Number Percent		comparative data
bad for physical health			
Very good	41	21%	27%
Good	132	68%	67%
Bad	20	10%	6%
Very bad	1	<1%	0%
Total	194	100%	100%

Source of comparative data: Attitudes to health and work amongst the working age population survey. Available at http://research.dwp.gov.uk/asd/asd5/report_abstracts/rr_abstracts/rra_763.asp

Taking everything into account, do you	Pilot survey		General population
think paid work is generally good or	Number Percent		comparative data
bad for mental health			
Very good	41	21%	26%
Good	131	68%	67%
Bad	20	10%	6%
Very bad	0	0%	1%
Total	192	100%	100%

Source of comparative data: Attitudes to health and work amongst the working age population survey. Available at http://research.dwp.gov.uk/asd/asd5/report_abstracts/rr_abstracts/rra_763.asp

In general, how satisfied are you with:

- a. your job
- b. the social environment at work
- c. the physical environment at work

Analysing the data

The above questions were answered on a five-point scale ranging from very dissatisfied to very satisfied, and can be analysed using simple frequency tables. The questions were used in the British Heart Foundation 'Well @ Work' evaluation surveys and HNA survey results can be compared against results from that source.²⁸ For example among the organizations included in the Well@Work evaluation, at baseline:

- between 27-83% of respondents were very quite/very satisfied with their job
- between 25-65% of respondents were quite/very satisfied with the social environment at work
- between 20-55% of respondents were quite/very satisfied with physical environment at work

Example analysis

The example frequency table below shows pilot survey respondents' reported satisfaction with their job in general – 66% were either quite or very satisfied and 18% were quite/very dissatisfied.

In general, how satisfied are you	Pilot si	urvey
with your job	Number	Percent
Very dissatisfied	6	3%
Quite dissatisfied	30	15%
Neither satisfied nor dissatisfied	32	16%
Quite satisfied	103	53%
Very satisfied	25	13%
Total	196	100%

²⁸ BHF Well@ Work evaluation report available from

http://www.bhfactive.org.uk/userfiles/Documents/WWEVALUATIONREPORT1.pdf

Within the last 12 months have you suffered from any illness, disability or other physical or			
mental problem that was caused or made worse by your job or by work you have done in the			
past?	🗆 Yes	□No	

Analysing the data

The above question has been used in the Labour Force Survey and is analysed by simple frequency table of 'yes' and 'no' responses.

Example analysis

One in five (20%) pilot survey respondents reported that within the last 12 months they had suffered from illness, disability or other physical or mental problem caused or made worse by their job or by work they done in the past. This is significantly higher than the proportion reported in the HSE Labour Force survey (2%), and the reasons for large difference this are under investigation by the pilot survey organisation.

Problem	Pilot survey		General population
	Number	Percent	comparative data
Yes	39	20%	2%
No	159	80%	98%
Total	198	100%	100%

Source of comparative data: HSE Labour Force Survey 2008/9. Available at http://www.hse.gov.uk/statistics/lfs/0809/hubresults.htm

In general, how do you find your job?
Not at all stressful
Mildly stressful
Noderately stressful
Very stressful
Extremely stressful

Analysing the data

The above question was used in the 2009 Psychosocial Working Conditions in Britain Survey and is analysed by simple frequency table of the five possible responses.

Example analysis

A total of 17% of pilot survey respondents said they found their job either very or extremely stressful, the same proportion as found in the Psychosocial Working Conditions in Britain Survey. However, only 6% of pilot survey respondents said their job was not at all stressful compared to 17% in the national survey.

In general, how stressful do you find	Pilot survey		General population
your job?	Number	Percent	comparative data
Not at all stressful	11	6%	17%
Mildly stressful	66	33%	30%
Moderately stressful	86	44%	36%
Very stressful	30	15%	13%
Extremely stressful	4	2%	4%
Total	197	100%	100%

Source of comparative data: Psychosocial Working Conditions in Britain survey, 2009. Available at http://www.hse.gov.uk/statistics/pdf/pwc2009.pdf

How likely are you to take part in each of the following programmes if they were offered to you at work?

A range of options were listed (e.g. physical activity sessions, stress-buster sessions etc) and responses were given on a five-point scale ranging from extremely likely to extremely unlikely. It is recommended that this question should be customised by organizations to include locally relevant activities/ programmes. The data can be analysed by simple frequency table, counting responses to each option.

/	Which of the following changes (if any) are you interested in making over the next 12 months?		
	(please tick <u>all</u> that apply)		
		Stop smoking	
		Increase physical activity levels	
		Eat a more balanced diet	
		Drink less alcohol	
		Reduce stress	
		Other (please specify)	

The aim of this question is to assess likely demand for workplace-based initiatives, and the data can be analysed by simple frequency table.

If there was one thing in your workplace that would improve your health, what would it be?

This is an open ended question inviting respondents to comment on one thing that they would like in their workplace to improve their health. The preferred method of analysis will depend on the number and nature of responses. However, it is likely that it will be necessary to code responses. As a first step, responses should be transcribed. Usually, the text will be brief

and suitable for entry into the same database as the quantitative (numeric) data. Longer responses may have to be transcribed using word processing software.

Once the responses have been transcribed, codes should be assigned to identify the most common groups or themes. Depending on the nature of the data use either a pre-determined coding list (for example based on the previous question regarding interest in changes) or assign codes based on themes emerging from the data. Usually it is good practice not to include too many coding categories, otherwise the data become unmanageable. Once codes have been applied, the data can be analysed using simple frequency tables to count the number of occurrences of each theme.

If required, it may also be useful to extract direct qualitative quotes from the actual text to illustrate and elaborate on points drawn from the quantitative analysis of the remainder of the questionnaire.

2. Sub group analysis

Cross tabulations are a good way to compare two or more subgroups of information. Cross tabulations allow comparison of data from two questions to determine if there is a relationship between them. Like frequency tables, cross tabulations appear as a table of data showing answers to one question as a series of rows and answers to another question as a series of columns. The intersections of the various columns and rows, commonly called cells, are the percentages of people who answered each of the responses.

Cross tabulations include a dependent variable and an independent variable. For example, smoking prevalence could be analysed by age group. In this example age group is the independent variable. The independent is expected to affect the dependent variable (in this case smoking prevalence). Age group cannot be the dependent variable as it would not be sensible to hypothesise that age depends on smoking (rather, smoking may depend on age).

Analysing variation in survey results by sub group may be especially useful in helping to target interventions in the workplace.

Cross tabulations are easy to calculate in database packages – for example by using the crosstabs command in SPSS and by using pivot tables in Excel.

Example analysis

The table below shows variation in current smoking by age group among pilot survey respondents i.e. 35% of people aged under 25 years reported currently smoking compared to only 8% of people aged 55-64 years. The statistical significance of such variations can be formally tested (using chi² test) but that is outside the scope of this paper.

Age group	Pilot survey - smoking prevalence		
	Current smoker	Ex or never smoker	Total
Under25	7 (35%)	13 (65%)	20 (100%)
25 – 34	4 (14%)	24 (86%)	28 (100%)
35 – 44	5 (11%)	40 (89%)	45 (100%)
45 – 54	12 (18%)	56 (82%)	68 (100%)
55 – 64	3 (8%)	33 (92%)	36 (100%)
Total	31 (16%)	166 (84%)	197 (100%)

APPENDIX 2 - STEP BY STEP: CREATING A HEALTHY WORKPLACE



Appendix 3 Useful Information

Health Work and Wellbeing Coordinators

Donna Burnett (Scotland) <u>donna.burnett2@scotland.gsi.gov.uk</u> Kirstie Haines (North West) <u>kirstie.haines@neweconomymanchester.com</u> Matt Downton (Wales) <u>matt.downton@wales.gsi.gov.uk</u>

NICE – published public health guidance

Provides guidance on best practice based on review of the evidence

PH24	Alcohol - use disorders – preventing harmful drinking	Jun 2010
PH6	Behaviour Change	Oct 2007
PH1	Brief interventions and referral for smoking cessation	Mar 2006
PH19	Management of long-term sickness and incapacity for work	Mar 2009
PH8	Physical activity and the environment	Jan 2008
PH22	Promoting mental wellbeing at work	Nov 2009
PH13	Promoting physical activity in the workplace	May 2008
PH32	Skin cancer prevention: information, resources and environmental changes	Jan 2011
PH10	Smoking cessation services	Feb 2008
PH5	Workplace interventions to promote smoking cessation	Apr 2007
CG43	Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children	Dec 2006

Useful contacts/websites

Health, Work and Wellbeing	www.dwp.gov.uk/health-work-and-wellbeing
Health and Safety Executive	www.hse.gov.uk
Equality Act 2010	www.equalityhumanrights.com
Health for Work Adviceline 0800 0 77 88 44	www.health4work.nhs.uk
Business Link	www.businesslink.org.uk
Mindful Employer	www.mindfulemployer.net
Bullying at Work	www.banbullyingatwork.com
Institute for Employment Studies	www.employment-studies.co.uk
Department of Health	www.responsibilitydeal.dh.gov.uk
NHS Plus	www.nhsplus.nhs.uk
Faculty of Public Health	www.fph.org.uk
Health at Work	www.bhf.org.uk/HEALTHATWORK
Federation of Small Businesses	www.fsb.org.uk
Chambers of Commerce	www.britishchambers.org.uk
ACAS (Advisory, Conciliation and Arbitration Service)	www.acas.org.uk
Chartered Institute of Environmental Health	www.cieh.org
Workplace Wellbeing Charter	http://wellbeingcharter.org.uk/index.php?page=Downloads-Tools
East Midlands Public Health Observatory	www.empho.org.uk
NHS Choices	www.nhs.uk

Fit for Work Services

Leicestershire Fit for Work Service

Tel: 0116 285 1710 Fax: 0016 285 1716 Email: admin@leicesterfit4work.org.uk http://www.leicesterfit4work.org.uk

Nottinghamshire Fit for Work Service

Tel: 0115 934 9540 Email: info@nottsfitforwork.org.uk http://www.nottsfitforwork.org.uk/



Health, Work and Wellbeing

Defining the priorities: Workplace Health Needs Assessment for Employers

February 2012



